

**Character strengths as mediators
in a mindfulness based intervention
for recovery from addictive behaviour:
a study in psychology of religion and positive psychology**

Sahaya G. Selvam

Heythrop College, London

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Abstract

There is an increasing interest in studying the association between spirituality and recovery from addiction. A few studies have already explored the mediators of the association, but rarely have they attempted to elucidate the association within a viable theoretical framework. The present study attempted to address this need. Beginning with the conceptualization of religion and spirituality, the study considered the possibility of a construct called 'religious spirituality'. Working within an epistemology of hermeneutical realism, this project in psychology of religion (PR) proposed positive psychology (PP) as a multidimensional theory, and opted for a mixed method approach integrating quantitative and qualitative data.

The literature review showed several parallels between the dimensions of spirituality as explored within PR and the list of character strengths as developed by PP. Therefore, the study set out to explore the association between spirituality and recovery within the theoretical framework of character strengths, otherwise also known as 'Values in Action' (VIA; Peterson & Seligman, 2004). A qualitative systematic literature review of the spirituality-addiction literature yielded a list of salient character strengths. A holistic conceptual framework was developed to understand addiction and recovery in the context of PP, predicting that spirituality based interventions, such as mindfulness, enhance the salient character strengths and thus facilitate recovery from addiction. The study went on to examine the efficacy of a Christian version of mindfulness (Jesus Prayer, Labyrinth walking and journaling) in enhancing character strengths and reducing addictive behaviour.

The empirical study was carried out in two phases in Nairobi, Kenya. The first part was a survey (N=504) to examine the correlation between three addictive behaviours (harmful use of alcohol, sex addiction and compulsive use of internet) and character strengths. The second part was an intervention study that was designed as a controlled trial (N=71). The regression tests on the data from the survey supported the conceptual framework to some extent. The lack of prudence, integrity, spirituality and forgiveness could predict addictive behaviours. Due to small sample size, the quantitative data from the intervention study could not establish that the effect of mindfulness was significantly different from the life skills or control conditions, nor was its effect on character strengths quantitatively verifiable. Through the case studies, it was possible to explore the impact of Christian mindfulness on the participants in the context of addiction recovery. An interesting pattern emerged suggesting a three dimensional religious spirituality in their relationship to the self, others and God. Perspective, humility, self-control, social intelligence, responsibility, forgiveness and spirituality were identified as being active in the practice of Christian mindfulness. Limitations of the VIA-Inventory of Strengths (VIA-IS) were observed, particularly for a cross-cultural situation. In general, the results suggest that while character strengths are conceptually attractive to address the mediators in a mindfulness based intervention for recovery from addictive behaviour, the VIA-IS itself may not actually present the best measurement instrument in this domain. The findings add support to the emerging understanding that addiction is a multidimensional phenomenon. Character strengths offer a promising framework for further exploring religious spirituality.

Supervisors:

Dr Joanna Collicutt
Harris Manchester College, Oxford University, UK

Dr David Ball
Institute of Psychiatry
King's College, London, UK

Examiners:

Prof. Kate Loewenthal
Royal Holloway, University of London, UK.

Prof. Chris Lewis
Glyndwr University, Wales, UK

Date & Outcome of the Viva Voce:

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Acknowledgments

One sultry afternoon in 2007, a young man walked into my office in the Don Bosco Youth Centre in Dar es Salaam, Tanzania. His opening lines were, “I was in one of your spiritual retreats. I just came back to tell you that in the past six months I have not tasted ‘the garlic of Egypt’.” In my final reflection during the five-day silent retreat for young people, I had made a Biblical reference to the people of Israel, who, on their journey towards the Promised Land would often think of the fish, the cucumbers, and garlic of Egypt (Num 11:5-6). They often expressed even a preference to run back into slavery just to be able to enjoy the delicacies of Egypt. We might go through a similar experience, I had said. As a result of spiritual experiences we begin to enjoy some fresh air of freedom, but when the going gets tough we are tempted to backslide. The young man went on to narrate a personal testimony of his struggles with some addictive sexual behaviour in the past, and how he was able to manage it well and remain spiritually-oriented after that retreat. What was particularly helpful for him, I went on to enquire. He mentioned, Jesus Prayer and journaling! This was for me the proverbial Newtonian apple! In the weeks and months that followed, as I facilitated more and more retreats similar testimonies were repeated.

What is happening, I began to wonder. Apart from the increase in my own spiritual fervour, given my previous academic background my intellectual curiosity became even more pointed. By the middle of 2008, there was the promise of support to me from my religious order to pursue a doctoral degree. What area of human enquiry could offer the possibility for me to empirically examine the effect of spiritual interventions on recovery from addictive behaviours? After some preliminary search, I came into the psychological study of religion.

Many people have generously supported me in the completion of this PhD project. I thank all my young African friends, whose distant smiles provided the motivation for daily study in the past four years. My supervisor, Dr Joanna Collicutt gently but firmly directed the development of the project. Dr David Ball, the secondary supervisor, brought an empirical outlook to the project and an editorial quality to the text of the dissertation. Dr James Au Yeung assisted me with his expertise in statistics when I was lost in the forest of numbers. Several conversations with Dr Human Unterrainer have also been helpful in the initial stages of the project. Barlet Jaji facilitated with much ease the data collection process in Nairobi, Kenya. While Eddie Kabue and Vivian Nyamwaya facilitated the Christian mindfulness intervention, Jane

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Chapter 1

General Introduction

1.1. Statement of the Problem

In 1961, Carl Jung wrote in a letter to Bill Wilson, the co-founder of Alcoholics Anonymous (AA): “*spiritus contra spiritum*” (Jung, 1961). By this he implied that the origin of addiction could be related to the spiritual thirst for wholeness; that addiction itself is “a perdition” that one is led into by an inability to recognise the spiritual need; and that the possibility of recovery lies in the “higher education of the mind” that goes “beyond the confines of mere rationalism” to a “real religious insight,” “an act of grace... which leads you to higher understanding,” and “a personal and honest contact with friends.” This remark of Jung that was only based on anecdotal evidence has been examined more systematically by literally thousands of studies in the past decades.

The current body of literature on the association between addiction and religion and/or spirituality is abundant. For instance, Cook (2004) reviewed 265 books and papers on spirituality and addiction, and Geppert and colleagues have developed an online bibliography on religion, spirituality and addictions that now has over 2000 entries (Geppert, Bogenschutz, & Miller, 2007). In their initial work towards developing the online bibliography, Geppert and colleagues ran an online search in MEDLINE, PsychINFO and ALTA Religion Databases covering the period from 1941 and 2004, using the key terms: ‘substance abuse’, ‘substance dependence’, ‘addiction’, ‘religion’, and ‘spirituality’. This delivered 1353 entries. Of this, 97 studies were directly related to spiritual/*religious* interventions for substance use disorders, some were commentaries and literature reviews, while others were related to measurement and epidemiology. In the course of the present doctoral study, a search was run in the EBSCOhost digital source on the following Boolean formula: “addiction AND (spiritual* OR religio* OR mindfulness)” in September 2010. The databases selected for this search were: Academic Search Complete, PsycINFO, MEDLINE, PsycEXTRA, PsycARTICLES. The search yielded a total of 2480 entries. Many of these reports have studied the effectiveness of, and mechanisms underpinning, the ‘12-steps’ approach of Alcoholics Anonymous.

From the published reviews of literature (Benson, 1992; Booth & Martin, 1998; Cook, 2004; Cook, 2009; Kelly, Magill, & Stout, 2009; Koenig, McCullough, &

Larson, 2001; Miller & Bogenschutz, 2007), two major points can be summarised regarding the relationship between religiosity/spirituality and recovery from addiction:

Firstly, religiosity, which is often measured in terms of frequency of religious attendance and degree of affiliation (Pullen, Modrcin-Talbott, West, & Muenchen 1999), appears to provide a protective element against addiction (see for instance, Marsiglia, Kulis, Nieri, & Parsai, 2005; Miller, 1998; Van der Meer Sanchez, De Oliveira, & Nappo, 2008; Walker, Ainette, Wills, & Mendoza, 2007). A typical example is the National Household Survey in the U.S. (CASA, 1998). It revealed that adults who did not consider religion very important were 50% more likely to use alcohol and cigarettes, three times more likely to binge drink, four times more likely to use illicit drugs other than marijuana, and six times more likely to use marijuana, compared with adults who strongly believed that religion is important. A similar pattern was observed in the effect of religious attendance among adults; and an even more pronounced inverse relation between religion and substance abuse was evident among teenagers. This protection may be mediated by religion-based drug education or by affiliation to religious groups that proscribe or warn against the use of drug and alcohol (Stylianou, 2004). Often, faith based prevention interventions include elements that emerge from the social interaction that religious groups provide, which may go beyond a strict religious content, to positive peer influence, role modelling, and social reinforcement (Neff & MacMaster, 2005). Religion may improve coping skills and reduce stress and thus indirectly guard against psychological factors that trigger addiction. Further evidence from cross-cultural studies supports the importance of social elements offered by faith based communities or groups even in recovery from addiction (Piko & Fitzpatrick, 2004; Stahler, Kirby, & Kerwin, 2007). Some ambivalent results are also noticed in some studies correlating religiosity and protection from substance abuse. In any case, this protective factor may not hold good for nicotine use. It is also important to note that most of these studies are carried out among adolescents (Chen, Dormitzer, Bejarano, & Anthony, 2004; Marsiglia et al., 2005).

Secondly, spirituality based interventions appear to facilitate recovery from addiction to some extent, and play a greater role in maintaining recovery (Leigh, Bowen, & Marlatt, 2005). Moreover, spiritual practices, such as meditation and silence, are said to have a positive impact on long-term recovery from substance abuse (Benson, 1992; Carter, 1998; Booth & Martin, 1998). In general, spiritual interventions are seen to be effective mostly among people who are spiritually oriented (Sterling et al., 2006). Treatment programmes based on spirituality can be grouped under three major types: 1)

non-affiliated spiritual programmes that recognise belief in a higher power and may be also used in religious contexts, such as the 12-Steps programme (Hughes, 2009; Tonigan, 2007); 2) religiously affiliated programmes which include therapeutic communities that are supported by specific faith-based organisations (Associazione San Lorenzo, 2008); and, 3) secular spiritual programmes that may not explicitly believe in a higher power but focus on empathy, meaning and ultimate concerns (Borkman, Kaskutas, & Owen, 2007). Results emerging from studies that examine these approaches are generally optimistic, though there are some exceptions. After closely examining these outcomes Christopher Cook concludes in a research review: “Despite the various limitations of these studies, on the basis of the evidence to date it would appear that treatment in programmes that incorporate spirituality is at least as effective as other forms of treatment. Further, there is reason to believe that spirituality is positively associated with abstinence ...” (Cook, 2009, p.150).

What remains yet to be studied more in depth are the underlying mechanisms in the relationship between spirituality and addiction. How does it work? Why is spirituality associated with addiction at all? Can this association be explained, or at least elucidated, within a psychology theoretical framework?

Gorsuch (1976) identified two possible causative models regarding religious belief and behaviour that might elucidate the above cited empirical findings in relation to addictive behaviour. One model suggests that religious beliefs may protect religious adherents from risky behaviours such as addiction, through the effects of cognitive consistency and the creation of social norms. This may be achieved by means of consistently preached doctrine in worship settings. In this model, the need to see one's behaviour as being consistent with one's ideals would reduce the risk for substance abuse and dependence, particularly for those who are members of denominations that proscribe alcohol use. This model fits well with what has been proposed by sociologists of religion, like Durkheim (1951) and Weber (1963), in connection to the role of religion as an agent of socialisation. They suggested that religion carries out the socialization process of its adherents through the use of three major strategies: social cohesion, social control and emotional support. The other causative model proposed by Gorsuch (1976) is an experiential model that suggests an analogous pathway between alcoholism and religious experiences such as worship or the sense of a loving presence of God. This model is not much studied, but could be of interest to psychologists of religion interested in addiction and recovery, and has been a remote inspiration to the present study.

On another level, there have been some attempts at exploring the processes, mechanisms and mediators, prevalent in the relationship between religion, spirituality and addiction recovery in terms of motivational factors (Johnson, Sheets, & Kristeller, 2008; Kelly, Magill, & Stout, 2009; Neff & MacMaster, 2005). Johnson and colleagues (2008) examined beliefs about alcohol, social influences, understanding of well-being, and motives for drinking as potential mediators of the relationship between religiousness/spirituality and alcohol use and problems. This study, however, did not tease out the constructs of spirituality based on a theoretical framework, and their conclusions were based only on correlational data. On the other hand, Neff and MacMaster (2005) proposed an integrative conceptual model that looked at behaviour change systems to understand recovery in terms of spiritual transformation. They argue that “spiritual transformation at an individual level takes place in a social context involving peer influence, role modeling, and social reinforcement” (p.669). Though this conceptual model looks promising, it has not been empirically verified. Finding adequate instruments to measure all the constructs envisaged in the model will be a Herculean task. Hence, the model will have to be further simplified if it can really be put into empirical testing.

Despite the above cited efforts, the conclusion of the review by Geppert and colleagues (2007) seems still relevant: “Meanwhile, important questions remain relatively unexplored. Studies of ‘active ingredients’ and mechanisms of action of spirituality and religion [on recovery from addiction] are few” (p.394). The authors suggested that the future direction for research is to move beyond the exaggerated focus on 12-step movement of AA and cross-sectional studies, “to explore other aspects of the dynamic interplay between addiction, religion and spirituality, resilience and recovery” (p.394). Similarly, Cook (2004), in his review of the spirituality-addiction literature identified a set of “13 conceptual components of spirituality which recurred within the literature” (p.99; and this will be explored in detail in the next chapter of this dissertation). In conclusion to the review he stated, “It is currently difficult to know to what extent the core aspects of spirituality identified in this research are important in relation to treatment process and outcome” (p.550). The present doctoral project intended to address this gap in the research data using the character strengths of the Values in Action (Peterson & Seligman, 2004; Peterson, 2006) as the conceptual framework. It attempted to examine the possibility of understanding the relationship between religion/spirituality and addictive behaviour using character strengths as active ingredients.

1.2. Objectives of the Study

This doctoral project had two research questions:

1. Can the mediators of the association between spirituality and recovery from addiction be identified in terms of the character strengths of positive psychology?
2. Can the identified character strengths be enhanced by a religious spiritual intervention; and would this in turn be associated with reduction in indicators of addiction?

The objectives of the study are:

- To identify the salient character strengths that feature in the relationship between religion/spirituality and recovery from addiction through a systematic literature review.
- To situate the role of the character strengths in addiction recovery within a holistic understanding of addiction and recovery.
- To establish the association between levels of addictive behaviour (problematic use of alcohol, sex, and the internet) and the character strengths (scores in VIA-IS) among a sample of young people in Nairobi.
- To implement a religious spiritual intervention, which includes Christian contemplative practice, labyrinth walking and mindfulness journaling, in order to ascertain whether the intervention would (a) enhance the salient character strengths, and (b) reduce the addictive behaviour.
- To explore qualitatively the discourse of character strengths in the narrative of participants' experience of the Christian mindfulness intervention.

The meaning and the implications of the research questions and the hypotheses will be further explored in the next chapters, working out their rationale in the context of the literature review.

1.3. Approach and Scope of the Study

1.3.1. Epistemological position: *Hermeneutical realism*

The above listed objectives are varied in nature. The research task at hand requires a mixed-method approach – both qualitative and quantitative. Mixed methods would protect this project in psychology of religion from naïve realism and anti-realism, and help it to remain within the framework of critical realism (Bhasker, 2008; McGrath, 2004; Sayer, 2000). A particular epistemological strand within critical realism is, what some authors have called, ‘hermeneutical realism’ (Browning, 2003; Richardson, 2006; Sandage, Cook, Hill, Strawn, & Reimer, 2008). The present study could be situated within this epistemological framework. Without elaborating the philosophical underpinnings of hermeneutical realism, here I will briefly summarise the related concepts and point out how this epistemological strand influences the methodology of the present study.

Hermeneutical realism is closely related to critical realism (Hathaway, 2002). It is only that hermeneutical realism integrates the role of interpretation in explaining and understanding reality. Don Browning is acclaimed as the first author to propose this as an interdisciplinary approach (Sandage, et.al., 2008, p.354). Browning (2003, p.317) himself describes hermeneutic realism as,

a form of critical realism, as this term is used by philosophers of science. It is not naive realism, with its correspondence theory of the relation between understanding and reality. Nor does it hold that all knowledge is nothing but human construction with no relation to the regularities of reality. Hermeneutic realism admits that even the best knowledge is constructed in some sense. Nonetheless, it contends that in spite of the constructed element in all understanding, good knowledge has degrees of approximation to reality.

In simple words, hermeneutical realism holds that reality is out there prior to understanding, and that understanding is an outcome of interpretation. Reality is both given (we discover it) and made (as we understand it). Thus, hermeneutical realism integrates objectivity and subjectivity, explanation and understanding, the use of quantitative and qualitative data, nomothetic and ideographic theorizing, and *etic* (universal) and *emic* (culturally specific) perspectives (Sandage, et. al., 2008). From this perspective, it is important to realise that even an attempt to understand psychological reality in terms of measurements presupposes interpretation: in the framing of the measurement, the choice of measurements, and in understanding and discussing the results. Hermeneutical realism is increasingly acknowledged as a viable

epistemological approach not only in general psychology (Molden & Dweck, 2006), but also in psychology of religion (Hathaway, 2002; Richardson, 2006) and in positive psychology (Sandage, Hill, & Vang, 2003; Sandage, et. al., 2008).

The present study attempts to be nomothetic, trying to test some hypotheses by means of a set of data gathered from a large sample using a questionnaire, and to assess a conceptual framework through a controlled experiment. It also has some ideographic aspects. With the help of two case studies, it explores the dynamics of the intervention as two individuals experienced it. In this way, the present project seeks to overcome the apprehension expressed by Molden and Dweck (2006, p.192): “The search for universal principles of human behaviour and information processing is one of the primary goals of psychological science ... However important universal principles are, they sometimes obscure how real people actually function. That is, by attempting to describe only the average, one runs the risk of describing nobody in particular.”

1.3.2. An overview of the project

The general procedure of this project could be termed recursive rather than linear, in that the study constantly creates a dialogue between theory and data in a deductive-inductive process. This approach is inspired by the hermeneutical realist perspective. It is integrative rather than clastic – oriented towards a both/and rather than an either/or approach. The study brings together two major areas of psychological enquiry: psychology of religion and psychology of addictive behaviour. The association between these two areas is explored within the framework of a recent movement in psychology, namely, positive psychology. Understanding these three areas forms the content of Chapters 2 and 3 of this dissertation. Since this dissertation reports a research project in psychology of religion, it begins with a brief introduction to psychology of religion. Most contemporary academic works in religious studies begin by conceptualising religion and/or spirituality, often as disparate entities. A principal component of the intervention used in this study was a contemplative practice drawn from a particular religious tradition. In addition, the intervention-study was carried out in the East African society where there is no clear distinction, much less a separation, between religion and spirituality (Evans-Pritchard, 1965; Mbiti, 1969; Magesa, 1997), therefore, ‘a multidimensional model’ of religion and spirituality is proposed. This comprehensive model introduces an alternative construct that presupposes the possibility of a marriage between religion and spirituality in, what is termed, ‘religious

spirituality’. However, since ‘religious spirituality’ is still a relatively unusual terminology, it was unavoidable that ‘spirituality’ and ‘religion’ as separate terms be used in the dissertation, particularly when searching digital databases.

The second section of Chapter 2 deals with positive psychology and character strengths. A preliminary examination of the treatment and measurement of spirituality and religion within psychology of religion showed some correspondence to the list of character strengths within the Values in Action (VIA) of Positive psychology. This similarity is also alluded to in some published reviews of the spirituality and addiction literature (for example, Cook, 2004). Therefore, this project set out to explore the VIA character strengths as a possible framework within which the association between spirituality and recovery from addiction could be elucidated. The final section of Chapter 2, points out the relevance of mindfulness to psychology of religion and positive psychology. It introduces the area of ‘Christian mindfulness’, though the details of the interventions are elaborated in a latter chapter. In brief, the aim of Chapter 2 is to establish the theoretical framework for the present study.

Chapter 3 goes on to evolve a conceptual framework. While a theoretical framework is a theory or set of theories on which a study is based, the conceptual framework is the operationalization of the theory. A Conceptual framework generates a set of hypotheses that attempt “to identify something that is going on” in the phenomenon under study (Maxwell, 2005, p.34). The conceptual framework for the present study is evolved in three phases. It begins by summarising some of the important theories and models of addiction. From among over a hundred known theories (West, 2008), a few were selected insofar as they were relevant to explore the relationship between religious spirituality and addiction, and they are surveyed within the criteria set out by DSM-IV and ICD-10 classifications of mental disorders to determine addictive behaviour. In the second part of the chapter, a systematic literature review was undertaken. This review used the method of thematic analysis on published journal articles on addiction and spirituality (or religion or mindfulness), and came up with a list of possible character strengths that could be hypothetically significant in facilitating recovery from addictive behaviour. Based on these conceptual insights, the chapter proposes a conceptual framework to understand addiction and recovery in a holistic manner within the discourse of character strengths and wellbeing as elaborated by positive psychology.

Chapter 4 on method of study describes how the conceptual framework was then explored in a two-part empirical study. The first part of the empirical study looked at

the correlation between three measures of addiction and the VIA measure of character strengths. Control variables (coping, anxiety and depression measures) were included to examine the specific nature of any correlates between character strengths and addiction. That is, if it could be shown that character strengths are better predictors than coping styles for addictive behaviour, and that a lack of character strengths is a better predictor for addictive behaviour than anxiety and depression, and if the mindfulness intervention had a better impact on character strengths and addictive behaviour as compared to its effect on these control variables, then the specific mediating role of character strengths in addiction recovery could be established.

The second part of the empirical study consisted of an intervention that was designed as a controlled trial. This tested the efficacy of 'Christian mindfulness'. The intervention consisted of three components: Christian contemplative practice, labyrinth walking, and mindfulness journaling. The rationale for calling this intervention, 'Christian mindfulness,' will be clarified in the next chapters. Mindfulness itself is used more and more as a technique in positive psychotherapy (Baer & Lykins, 2011). Additionally, mindfulness is increasingly employed to facilitate recovery from addiction (see for example, Appel & Kim-Appel, 2009; Carlson & Larkin, 2009). Therefore, it was an attractive option to use a mindfulness-based intervention to facilitate recovery from addictive behaviour so as to examine the mediatory role of character strengths. Given that few psychology studies are carried out among the people of Africa, and given the interests of the researcher, the empirical part of the study was carried out among the young-adult population in Nairobi, Kenya.

The results of the empirical study are reported in Chapter 5. The initial sections of the chapter deal with some preliminary analysis: it begins by evaluating the reliability of the instruments used and summarising the prevalence of addictive behaviour among the sample population. The second part of the chapter reports results relevant to the hypotheses of the present study: the correlation between character strengths and addictive behaviours vis-à-vis the correlation between the control variables and addictive behaviours. Using regression tests some predictors of addictive behaviours are identified. Finally, using the quantitative data, the effect of interventions on character strengths and addictive behaviour is evaluated through ANOVA. To supplement the quantitative data, two case studies are presented. This examines in some detail the dynamics of Christian mindfulness intervention as it was experienced by the participants.

Chapter 6 discusses the implication of the results in relation to the four hypotheses: the role of character strengths in addictive behaviour (H₁); the possibility of identifying a pattern among character strengths in their relation to addiction (H₂); examining the role of character strengths as mediators in mindfulness facilitating recovery (H₃); the relative influence of coping, anxiety and depression vis-à-vis character strengths on addiction (H₄). The implications of the insights gained from the case studies are also discussed in this chapter.

In conclusion, in Chapter 7, the limitations of the study are discussed while also proposing orientations for future research. It points out the contributions and limitations arising from the cross-cultural features of the research. This final chapter also lists the unique contributions of the present study to the three areas of its interest: psychology of religion, addiction research, and positive psychology. In the context of a study that presupposes an epistemology of hermeneutics, reflexivity is important: to be able to account for the filters and lenses through which the researcher might 'prejudice' the study, and to be aware of how certain aspects of the study might influence the researcher as a person. The dissertation will conclude with an exercise in reflexivity.

Chapter 2

Positive Psychology as a Theoretical Framework for Psychology of Religion

2.1. Theoretical Framework: A Bird's-eye View

The present study brings together two major areas of psychological enquiry, namely, psychology of religion and psychology of addictive behaviour. The specific focus is on the underlying mediators in spirituality-based interventions that facilitate recovery from addiction. The mediating relationship between spirituality and recovery is examined within the framework of positive psychology. The objectives of this chapter and the next are: a) to bring together these three areas of psychology; b) to delineate and define the constructs from these areas that are relevant to the present study; c) to show how the specific constructs are conceptually related to each other; and d) to arrive at a set of hypotheses for the study.

Figure 2.1 diagrammatically presents the conceptual relationship between the three areas of enquiry and their relevant constructs. The three major areas are represented in double-lined boxes. Within the area of psychology of religion our focus is on religious spirituality. Rather than a polarised discussion on religion and spirituality, this chapter presents the possibility for a multidimensional matrix of religion and spirituality, within which religious spirituality is to be situated. In positive psychology, the focus will be on character strengths. Virtues and character strengths, that have been previously largely in the domain of philosophical, religious and cultural

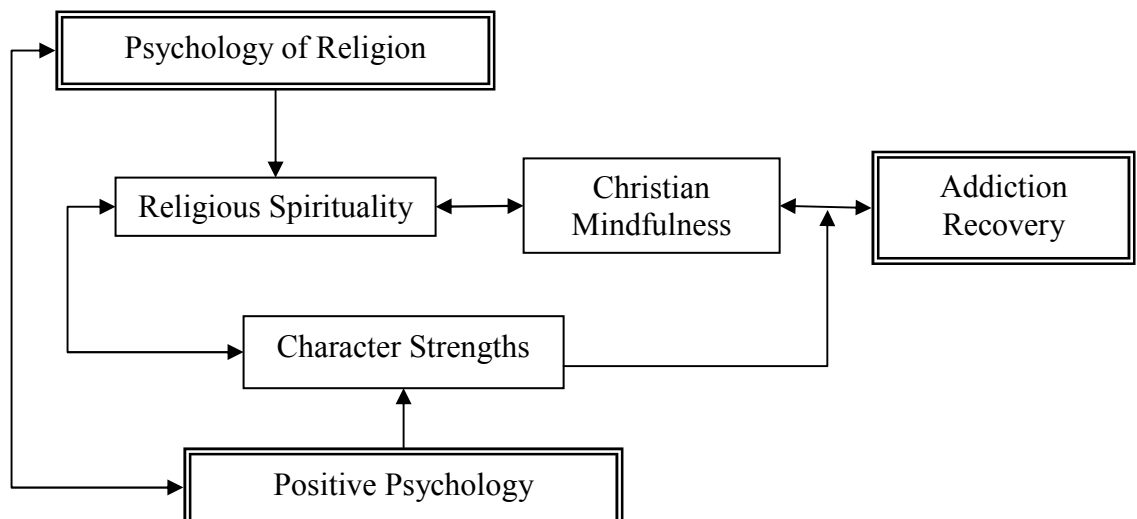


Figure 2.1. Theoretical Framework

discourses, are now becoming matter of interest to positive psychology. They are said to contribute to human wellbeing and happiness. The present chapter also explores the possible parallels between the dimensions of religious spirituality and character strengths, and considers the role of Christian mindfulness in cultivating character strengths in the context of religious spirituality.

The next chapter will deal with the aspects of the relationship between addiction recovery and religious spirituality in terms of character strengths. The first section of the chapter presents some theories of addiction. The second section explores the presence of some salient character strengths in a sampled set of spirituality-addiction literature, through a qualitative thematic analysis. Based on these salient character strengths a hypothetical framework is proposed to elucidate the mediators in the association between religious spirituality and addiction recovery.

2.2. Psychology of Religion and Constructs of Religion and Spirituality

2.2.1. Psychology of religion: An introduction

“Why should we study religion psychologically?” With this question, Spilka and colleagues (2003, p.4) begin the third edition of their textbook on the psychology of religion. They go on to answer the question at some length. Here, I summarise their arguments, and add others. In brief it is meaningful to study religion from the perspective of psychology because the majority of the people of the world take religion seriously, and this influences their motivation, cognition, behaviour and wellbeing. Collicutt (2011, p.250) suggests a simple argument, “religion, if nothing else, is a profoundly human phenomenon, and therefore amenable to study by psychologists.” Besides these pragmatic concerns, the study of religion is intriguing because it attempts to answer “questions of ultimate value and ultimate meaning” (Funder, 2002). Consequently, psychology of religion uses the theoretical framework and methodology of general psychology to examine religious sentiment and behaviour. More precisely, it studies the effect of religiosity and spirituality on human mental processes and behaviour - collective and individual (Allport, 1950; Emmons & Paloutzian, 2003; Gorsuch, 1988; Hill & Gibson, 2008; Jonte-Pace & Parsons, 2001; Spilka, Hood, Hunsberger & Gorsuch, 2003, pp.1-19; Wulff, 1997, pp.1-19).

Yet, the relationship between religion and psychology has not always been smooth. Early psychologists like Wilhelm Wundt (1832-1920), William James (1842-1910), Stanley Hall (1844-1924), Sigmund Freud (1856-1939), Edwin Starbuck (1866-1947), and Carl Jung (1875-1961) were concerned with the impact of religion on human behaviour and wellbeing. However, Freud's negative conclusions about religion, that were in the words of Loewenthal (2000, p.8), "naughty, though witty and plausible", took their toll on the relationship between psychology and religion. More importantly, as psychology began to be influenced by the positivist and behaviourist approaches in the early half of the 20th century, religion was largely side-lined within psychological enquiry. For instance, psychology text books hardly included 'religion' in their indices (Spilka, 1978; Spilka, Comp, & Goldsmith, 1981). This neglect of religion was also a result, at one level, of the conscious separation between science and religion, and the idea that religion cannot be studied scientifically, and on another level, it was the mirroring of the increasing secularism and the divide between religious and social life. It is also possible that there was a case of throwing out the baby with the bath water, as Coon (1992) suggests: in an attempt to purify psychology of its spiritualism and psychic contents that popular psychology in the U.S. had come to be identified with, most of religion and spirituality were also thrown out.

However, in the past four decades or so there has been a revival of interest among psychologists in the study of religion. Allport's (1950) *The Individual and his Religion* could be cited as one possible turning point. Psychology of religion (initially as Psychologists Interested in Religious Issues – PIRI) became a division within the American Psychology Association (APA) in 1976. (Only in 1992 PIRI took on the title of 'Psychology of Religion' within the APA; see Reuder, 1999) By the late 1980s psychology of religion scholars were optimistic about how religion began to feature in psychology textbooks even if, from their perspective, the situation was still far from the ideal (Lehr & Spilka, 1989). Since then religion and spirituality have gained increasing currency within mainstream psychology. This growth has also been facilitated by funding agencies, such as the John Templeton Foundation, that are sympathetic to the study of religion and spirituality. In the past twenty years, several solid text books on psychology of religion have been published, and some of these have gone through various editions (for instance, Argyle & Beit-Hallahmi, 1975; Fuller, 1994; Hood, Hill & Spilka, 2009; Loewenthal, 2000; Paloutzian & Park, 2005; Wulff, 1997). Besides a plethora of academic journals on the subject, there are also several graduate courses

being offered in many universities with specialisation in psychology *of* religion, or psychology *and* religion, or pastoral psychology (Nielson, 2011).

Basically, there are three major strands in studies that bring together psychology and religion (see Spilka et al., 2003, pp. 536-543): (a) religious psychology discusses psychological findings within the discourse of religion, which is often Christianity; pastoral psychology as an offshoot of this approach draws insight from psychology for use in ‘caring ministry’, while also wooing the secular practitioners to pay attention to the role of the spiritual; (b) psychology *and* religion attempts to facilitate a dialogue between the two fields while maintaining their independent discourses; and, (c) psychology of religion uses the theoretical framework and methods of general psychology to study religious phenomena and their elements, thus seeking an opportunity to contribute to mainstream psychology. The approach of the present study is generally characterised by that of psychology *of* religion.

In recent years, it has become a matter of routine in the introductory sections of the works of psychology of religion (Hill & Pargament, 2003, p.64-65; Spilka, Hood, Hunsberger, & Gorsuch, 2003, pp.8-11; Wulff, 1996, pp.5-7), and indeed in other social sciences studying religion (Heelas & Woodhead, 2005; Ludskow, 2008), to make a distinction between religion and spirituality. The titles of several journals respect this distinction. After much debate (Pargament, 1999; Stifoss-Hanssen, 1999), Division 36 of the American Psychological Association (APA), since August 2011, has been renamed as ‘The Society for the Psychology of Religion and Spirituality’. What is the subject matter of psychology of religion? Is it religion or spirituality, or both? How does the present study look at religion and spirituality? The next section attempts to establish a multidimensional matrix of religion and spirituality within which the conceptual and empirical dimensions of the present study can be carried out.

2.2.2. A multidimensional matrix of religion and spirituality¹

In the context of the present study that involved African participants, and is inspired by a hermeneutical realist paradigm, I suggest, the distinction between religion and spirituality may be necessary in some societies, but may not be sufficient for a global perspective. In Western scholarship, at times, the distinction between religion and spirituality has come to be a separation that negates the possible co-existence of

¹ A previous version of this section was accepted for an oral-presentation at the 2nd International Conference of the British Association for the Study of Spirituality, Northampton, UK, 15-17 May 2012. (However the presentation was not made since I could not be present at the conference.)

these two realities. Is this yet another of the Western constructs purporting to explain social phenomena that might be typically only Western, and in due course could become global just because the media (including the academic journals) are dominated by Western scholarship? Could there be a comprehensive model that would lend itself to an inclusive approach in the study of religion? In attempting to address these questions, I suggest that the entire human endeavour to search for meaning-systems often centred on the sacred (see Stifoss-Hanssen, 1999) cannot just be limited to mutually exclusive constructs of religion and spirituality. We might need other constructs: for instance, 'religious spirituality'. The purpose of this section, therefore, is to propose a model of religion and/or spirituality that would be parsimonious, yet at the same time, comprehensive enough, to accommodate the focus of this doctoral project, namely, the impact of Christian mindfulness on recovery from addictive behaviour, which is to be examined based on data collected in an East African context.

Religion, a complex phenomenon

Some classical authors in the psychology of religion have gathered numerous definitions of religion (for instance, Leuba, 1912), and others have avoided defining it (Coe, 1916). More contemporary authors begin by acknowledging the difficulty in defining religion, often also lamenting the plethora of definitions of religion. Typical statements include, "a definition of the term still eludes consensus" (Guthrie, 1996, p.412); "Religion is not a simple concept" (Hyde, 1990, p.336); "Religion is hard to define in a way that is satisfactory to most people most of the time" (Loewenthal, 2007, p.5). One reason for this difficulty is that we try "to describe a complex of beliefs, behaviours and experiences as 'religious'" (Spilka et al., 2003, p.6) and expect to find similar phenomena across the different religions and cultures. This one-word approach, or what Wulff (1997) called 'reification of religion', makes the definition of religion difficult. That is why, Taves (2009) suggests that as a Western folk concept 'religion' is a first-order term that is easily definable, whereas from a point of view of a particular discipline it becomes a second-order term that defies definition. Still, for the purposes of the present doctoral project I clarify 'religion' and 'spirituality', and constructs related to them.

The sacred and the secular: distinct or separate entities?

To grasp reality sometimes there is a need to distinguish between the various dimensions of that reality. However, models and paradigms mislead us when the

distinction within the same realm is exaggerated to the point of separation that does not perhaps universally exist. And worse still when this simulated separation then lends itself for an internal superiority-inferiority hierarchy. Moreover, the entities within this hierarchy sometimes begin to carry a negative-positive valence. There is a danger that this may be the case in the current discussions about religion and spirituality (see Hill et al., 2000). Is there indeed a separation between religion and spirituality across cultures and religious traditions of the world? Does the implied separation in scholarship show a certain hangover of the modernist enlightenment agenda? Perhaps here some insight from social anthropologists might be of help.

According to the French Sociologist Durkheim (1915), the separation of the sacred and the profane constitutes the very essence of religion. However, Evans-Pritchard (1965) repudiates this assumption of Durkheim, basing himself on anthropological research: "Surely what [Durkheim] calls 'sacred' and 'profane' are on the same level of experience, and far from being cut off from one another, they are so closely intermingled as to be inseparable. They cannot, therefore, either for the individual or for social activities, be put in closed departments which negate each other, one of which is left on entering the other" (p.65). Evans-Pritchard's position is based on his ethnographic work among the Zande and the Nuer peoples of the Sudan (Evans-Pritchard, 1937, 1956). Some dose of this scholarly sensitivity and openness is perhaps needed even in the psychology of religion of today (Hill & Hood, 1999, p.10; Spilka et al., 2003, p.3).

Closely related to the relationship between the sacred and the secular is the discussion on religion and spirituality. In some societies where there is a clearer separation between the sacred and the secular, a greater need may be felt to separate spirituality from social structures of organised religion. On the other hand, in many non-Western societies, and in some rural cultures in Western societies, the separation between the sacred and the secular, between religion and society, between the church and the state, may not be obvious even in the present day. For instance, despite all the variety that is undeniable in the religious expressions found in Sub-Saharan Africa, one commonality that is acknowledged in African Traditional Religion is that there is no separation of the sacred and the profane (Magesa, 1997; Mbiti, 1969). Because of the inseparability of religion and society among African peoples, scholars have often spoken about African philosophy and culture in conjunction with African religions (Mbiti, 1969; Magesa, 1998; Taylor, 1963). This is similar to the relationship between Hinduism and Indian society. Unable to fathom this dynamics, in terms of the Western

modernist framework of the duality of the sacred and the secular, some authors have preferred to list Hinduism as a culture rather than a religion (see Jansen, 1993; Knott, 1998). If a reference to Hinduism as a cultural institution does not deny that it is also a religion and philosophy, as Jansen (1993) implies, this may exhibit a sophisticated scholarship. On the other hand, if such an observation simply eliminates Hinduism from the list of religions, then that could show a naïve attempt to fit the global variety in the straightjacket of Western scholarship, and this could be an expression of what some authors have called, ‘academic imperialism’ (Hereniko, 2000; Sayer, 2000). This is also an exemplification of what was earlier referred to as, ‘the reification of religion’. However, if the psychology of religion in particular and religious studies in general, have to be globally relevant then it becomes imperative for them to have a model of religion and spirituality that is inclusive. In what follows, then, I list some of the possible models and evaluate them in the light of the earlier comments. My aim is to arrive at a model within which the present doctoral project could be comfortably developed.

An either/or model: religion or spirituality

Put simply, in the either/or model (Figure 2.2), religion is associated with institutional affiliation, whereas spirituality refers to individual and personal experiences that may or may not be even related to the ‘sacred’. In more sophisticated terms, while religion may be identified with ritualism and formalised belief, spirituality is related to “a search for meaning, for unity, for connectedness, for transcendence, and for the highest of human potential” (Emmons, 1999, p.5). Without explicitly subscribing to an either/or model, Spilka and colleagues (2003, pp.10-11) list the possible differences between religion and spirituality, by pointing out to specific

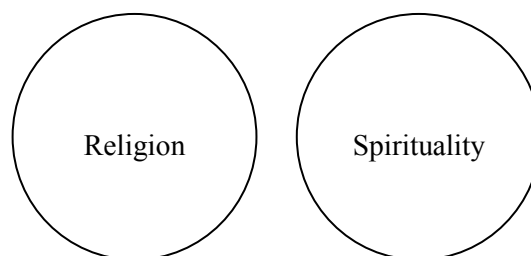


Figure 2.2. Either/Or model

characteristics of spirituality: it does not require an institutional framework; it is personal; it is based on value commitments; and it is without a deity. In addition, Pargament (1999) sees spirituality as an attempt to free religion from the judgement of

individuals as good or bad. Pargament maintains that spirituality does include a sense of the sacred. But for Wulff (1997, p.7), “What *is* conspicuously new in today’s spirituality is the frequent absence of an explicit transcendent object outside the self.”

To begin with, let the broad distinction between religion and spirituality be maintained, in order to see if a separation is meaningful or not. The separation simply affirms that there could be some individuals who are spiritual, but do not belong to any structured religion, particularly understood in terms of the Abrahamic religions – Judaism, Christianity and Islam. Here already, we are beginning to define religion in a narrow sense, in terms of structure and institution. This may not be avoidable, if some part of humanity wants to be free from what they perceive as the ‘tyranny’ of institutional religion. However, it is important to be aware that this is not how religion has historically been understood even in Western scholarship, nor is the institutional character intrinsic to most indigenous religions. Though this distinction between religion and spirituality, in terms of the institutional criterion, is now largely found useful in the long history of religious studies, as Pargament (1999) has pointed out, religion has not always been defined as a purely institutional phenomenon. He recalls, as an example, William James’ (1902/1977) definition of religion as “*the feelings, acts, and experiences of individual men in their solitude...*” (p.50).

What about the concepts of the ‘sacred’ and ‘God’? There could be more than one way of talking about the sacred. Firstly, the sacred could be personified in ‘God’, meaning that the sacred becomes an identifiable being and is accessible to worship and prayer. A second way is to have a sense of the presence of the sacred in the cosmos and in individuals’ lives. In this sense, the sacred remains a power or even a principle, as the concept of *dhamma* in Buddhism implies. Here, even if there could be an acceptance of the existence of a greater power, this does not become an object of devotion. There is still the third way of relating to a sense of the sacred in an existential framework (Stifoss-Hanssen, 1999; see also Lynch, 2012), as that which provides meaning to one’s existence.

In short, the rejection of ‘religion’ just because it appears to be institutional or that it entails a belief in a personal God, may not be justified. For example, African Traditional Religions are neither institutional nor authoritarian (Magesa, 1998; Mbiti, 1969); they do not have well spelt out canons, priests, and written texts. Belief in *dhamma* in Buddhism is not comparable to the personal God of the Judeo-Christian traditions. Therefore, do we need to rewrite our text books to imply that indigenous religions and Buddhism have always been spiritualities rather than religions?

As regards value commitment and personal experience as specific characteristics of spirituality, as Spilka and colleagues (2003) have pointed out, these are also included in most religions of the world. Religions have always been inseparable from ethical systems, even if religions might defend what is morally good from a faith perspective rather than from a purely rational or humanist perspective. The integration of faith and reason in explicating the norm of morality has also been part of the philosophical systems of religious traditions like Christianity and Hinduism. Similarly, while Abrahamic religions tend to be largely communal, their spiritual-mystical traditions have encouraged and even demanded a personal experience. For instance, a “trustful surrender to Jesus Christ, the *personal* Saviour and ever-living Lord” has been part of the Reformed Christian understanding of salvation (Kilpatrick, 2003, p.694).

So, what is really unique about spirituality that it should be a separate entity from religion? I suggest that an attempt to understand spirituality as being separate from religion might offer difficulties in defining spirituality itself. This lack of a good definition of spirituality in turn, as Spilka and colleagues (2003) point out, could create psychometric problems in measuring spirituality. In a similar vein, in tracing the lexical history of ‘spirituality’, Wulff (1997) maintains that the word ‘spirituality’ itself has its origin in religion, even if “the separation of spirituality from religious tradition is a modern development” (p.5; see also Sheldrake, 1992).

A both/and model: religion and spirituality

Due to the overlap between religion and spirituality, at least for the sake of scholarship, a both/and model could be considered (Hill et al., 2000). In this model one is seen to be contained within the other, or perhaps even a possible interaction between

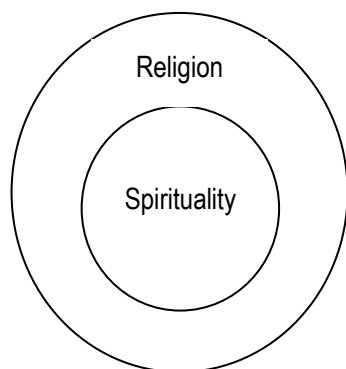


Figure 2.3. Both/and model 1

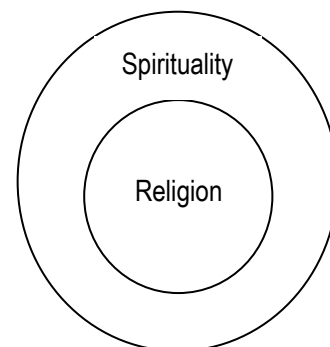


Figure 2.4. Both/and model 2

religion and spirituality. If one is contained within the other, then, another debate follows: which is more generic than the other? Pargament (1999) prefers to consider

spirituality as a dimension of religion (Both/and model 1 as represented in Figure 2.3). Some of the reasons cited in the section above form part of his argument, that not all religious traditions have been institutional, and that fundamentally both are searching for the sacred. Elsewhere, Pargament (2009) points out that “The sacred refers to concepts of God and transcendent reality as well as other aspects of life that take on divine character and significance by virtue of their association with the holy” (p.928). From this perspective there is not much difference between religion and spirituality – both are related to the sacred. Spirituality could even be seen as one approach among others within a range of religious sentiments that express people’s search for the sacred. There are, nevertheless, some counter arguments for this position (Stifoss-Hanssen, 1999), suggesting that, for instance, in the Scandinavian countries, the choice may not be between being ‘religious’ or ‘spiritual’, but being ‘Christian’ or ‘religious’, where the word ‘religious’ carries the same meaning as the American use of ‘spirituality’. (But I think the discussion we are engaged in is more than mere semantics.) Now, instead of using the concept of the sacred as the connecting link between religion and spirituality, if we use existentiality (search for meaning of life), as Stifoss-Hanssen (1999) suggests, then spirituality could be a generic construct and religion would be one particular way of seeking meaning of human existence (both/and model 2 as represented in Figure 2.4). However, it should be noted that, as Hill and colleagues (2000) point out, the narrowing of religion could be due to the fact that spirituality has claimed all the good things that were previously within the domain of religion making itself superior to religion.

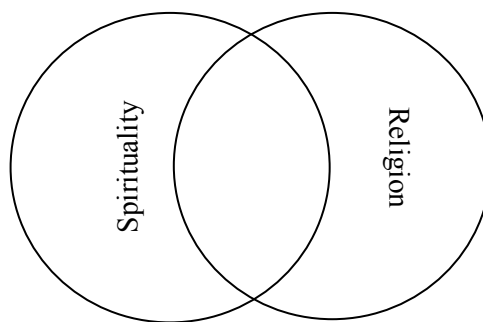


Figure 2.5. Interactive Model

Stifoss-Hanssen (1999) goes on to suggest an alternative possibility: an interactive model (Figure 2.5). This model looks at “independent forms of spirituality more as complementary to than alternative to religion” (p.26). He still maintains existentiality as the connecting link. However, while there is an overlap, there are some areas of both domains that are different. As he also points out, some people may

identify themselves as spiritual but might have recourse to religion when life-cycle rituals are involved: naming ceremony, weddings and funerals. While this model offers an interesting alternative, it does not adequately represent all the possible varieties created by the interaction between, or the absence of, spirituality and religion. Moreover, Stifoss-Hanssen does not give a name to the overlapping area. And his proposal that spirituality be represented by a larger circle, suggesting that more people may be spiritual rather than religious, again might show a bias emerging from Northern Europe. Finally, as far as the study of religion is concerned speaking about people who are neither religious nor spiritual is also of interest. Some scholars have branded such a phenomenon, ‘non-religion’ (Guyau, 1962; Lee, 2012, Voas, 2012). Though sometimes ‘non-religion’ is used as an umbrella term to include a variety of positions which are in contradistinction to religion often there are three major strands of approaches: “1) those which take religion as their root (non-religion, irreligion, a-religion, anti-religion), 2) those which take theism as their root (atheism, non-theism), 3) those which take the secular as their root (the secular, secularity, secularism)” (Lee, 2012, p.130). The foregone discussion indicates the conceptual complexity underlying the study of religion: it is far more than the mere distinction of religion and spirituality. Hence, the study of religion and spirituality requires a multidimensional matrix within which to situate itself.

A multidimensional matrix: towards religious spirituality

	3	4
High Spirituality	Spiritual-but-not-religious Quest orientation Sacred or secular Search for significance	Religious spirituality Intrinsic religiosity Sacred and secular Search for significance
Low Spirituality	2	1
	Neither religious nor spiritual Non-religion (?) Searching or no search for significance	‘Empty’ religion Extrinsic religiosity Sacred No search for significance
	Low Religiosity	High Religiosity

Figure 2.6. Multidimensional Matrix of Religion and Spirituality

The multidimensional matrix is represented in Figure 2.6. It is not the intention of this model to deny the possibility of a distinction or even a separation between religion and spirituality. It only points out that it is not academically helpful to talk about just two polarised constructs. The model draws attention to different possibilities both within religion and within spirituality, and the interaction between the two. It integrates the other models discussed above.

Let me begin by acknowledging that religiosity (columns in Figure 2.6) and spirituality (rows in Figure 2.6) are two possible ways of searching for meaning and/or the sacred (see Zinnbauer, Pargament, & Scott, 1999). Religiosity here could be described as being open to the *creed*, *code* and *cult* that encapsulate the experiences and expressions of a *community* of people in their search for the transcendent (see Swidler & Mojzes, 2000). Creed is a set of possible explanations for the mysteries of the origin, nature, meaning of the world, human life, and the transcendent. Code refers to the set of rules and guidelines flowing from the creed that regulate the community of believers. Cult is the way humans express their relationship with the transcendent in prayer, worship, and lifecycle rituals.

In addition to whatever has been said in the discussions above, spirituality could be said to be marked by a search for significance, often in terms of the sacred. Spirituality, even the strand that tends to polarise itself against religion, in scholarship or in larger society, rings an alarm bell for religion that may be bereft of spirituality. It calls attention to some aspects of religion with which not everyone might feel comfortable. The interaction between religiosity and spirituality, and the lack of it, create various possible positions in a matrix (Figure 2.6). These positions could be characterised as shades in a rainbow typified by various degrees of interaction, which, only for the sake of clarity, have been represented here in the figure as four distinct quadrants. Quadrant-1 shows a high level of religiosity and low level of spirituality, in which there may be an exaggerated focus on the sacred to the neglect of the secular. It runs the risk of becoming an empty religion, what Allport (1950) called, 'Extrinsic religion'. Quadrant-2 exhibits low levels of both religiosity and spirituality. Some people in this quadrant could be still searching for significance but not able to locate themselves in any particular direction, while others may not be interested in the search at all. Still others might be antagonistic towards the whole search. Quadrant-3 is the type of high spirituality and low religiosity that would emerge from the either/or model that has been discussed above. Quadrant-4 shows a possibility of being religiously

affiliated while maintaining a high level of spirituality. The discussion below elaborates further the interaction between the quadrants.

Batson (1979) proposed a ‘quest religiosity’ (close to Quadrant-3 in Figure 2.6) as an alternative to Allport (1950)’s intrinsic-extrinsic religiosity. He sees quest religiosity being conceptually closer to intrinsic orientation than extrinsic orientation, yet it is different from it in that intrinsic orientation might include commitment to some religious tradition. The individuals who orient to religion as a quest “view religion as an endless process of probing and questioning generated by the tensions, contradictions, and tragedies in their own lives and in society. Not necessarily aligned with any formal religious institution or creed, they are continually raising ultimate “whys,” both about the existing social structure and about the structure of life itself” (Batson, 1979, p. 32). Quest religious orientation is not without its critics (Donahue, 1985; Hood & Morris, 1985). Batson has replied to some of these criticisms (Batson & Ventis, 1985). However, as Beck and Jessup (2004) have suggested, the quest construct itself could have a multidimensional nature. In any case, for the purposes of the present study the quest orientation is not a useful framework since the study prefers an integrative approach that brings together religion and spirituality.

For the present study, without making a value judgment on individual adherents it is possible to look at some possible healthy tendencies of religion. In this context, I find Allport’s (1950) distinction between intrinsic and extrinsic religion, particularly in its original form, still useful. Initially he had talked about mature and immature religion; though this seems value-laden, this terminology clarifies what Allport meant. Perhaps, the main reason why researchers have been wary of Allport (1950)’s distinction of intrinsic and extrinsic religion is the value judgement implied in this distinction, as Paragament points out (1999). However, I do think that it is better to acknowledge openly that there may be certain type of religiosity that could be good or bad. Such an evaluation could be made, for instance, on the basis of contribution to human flourishing in its subjective, psychological and social dimensions. As will be explored in the present study, within positive psychology, human flourishing can be operationalized in terms of wellbeing and authentic happiness (Ryff & Keyes, 1995), or in terms of quality of life (Nussbaum, 2000). Ryff and Keyes (1995) expand wellbeing under three categories: subjective wellbeing (individuals who enjoy wellbeing acknowledge this), psychological wellbeing (they are free from mental disorders), and social wellbeing (they function well in their society). These categories will be further explored in the next section, but for now these criteria suggest that there is indeed a

difference between the religion of the likes of Osama bin Laden, and the religion of Mother Teresa, Desmond Tutu and the Dalai Lama. In short, as Vaillant (2008) has pointed out, the issue here may not be so much religion versus spirituality as immature faith versus mature faith. In the following paragraphs I briefly examine immature and mature faith arriving at what I call, 'religious spirituality' in which to situate the present study.

In the works of the psychology of religion, 'religiosity' is measured in terms of simple belief in the tenets of a particular religion (creed), observance of the directives of the religion (code), frequency of attendance in religious practices (cult), and sometimes also in attitudes towards the believing community (Francis & Katz, 1992). It should be reiterated that all religiosity is not negative. As it has been pointed out earlier, religiosity could be correlated to wellbeing. However, at times certain type of religiosity could compromise subjective, psychological and social wellbeing. For lack of space, I present just a few examples that summarise the abundant literature available within psychology of religion. Citing Andreason (1972), and Bock and Warren (1972), Spilka and colleagues (2003, p.529) point out, "Just as religion can strengthen moral commitments, enhance optimism, and stimulate ego development it may also activate disordered thinking and behaviour. We see this in religion's concern with sin." They go on to explore the role of religious exaggeration with sin and guilt that seems often correlated to depression and distress. Loewenthal (2007, pp. 68-70), in examining the relationship between gender and depression in the context of religion, summarises a score of studies to suggest that some unpleasant emotions such as guilt, shame and anxiety could be linked to religion, and they could mediate depression.

In its association to social wellbeing, when allegiance to creed, code, cult and the community is exaggerated radically, coupled with naivety and exclusivity, religiosity tends to become religious fundamentalism (Laythe, Finkel, & Kirkpatrick, 2001). Some authors see an association between fundamentalism and 'orthodoxy' (Fullerton & Hunsberger, 1982). In fundamentalism, creed, code, cult and the community of a particular faith-system get 'fossilised' – with little room for a dynamic interpretation, and sometimes hierarchical judgements arise, that is, considering 'our' faith-system as being superior to 'their' truth-claims. In more precise terms, the expression of the latter attitude would be fanaticism (Early, 1979, p.1318). That is, while fundamentalism is a radicalisation of one's own faith, fanaticism is an uncritical devotion to one's own truth-claim, and might include negative judgements about other

systems of faith and truth-claims. It is at these extreme levels that religiosity begins to threaten human flourishing.

On the other hand, Allport described ‘the mature religious sentiment’ in terms of the following attributes (Allport, 1950, pp.64-83):

- Differentiation: arriving at a multiplicity of religious sentiments (beliefs and expressions) through a reflective and even critical process. The individual expresses an internal order of religious sentiments which are maintained in a multiplicity.
- Dynamism: the mature religious sentiment exhibits a willingness to break out of the comfort zone of magical thinking and self-justification.
- Consistent morality: when intense religious sentiment is able to transform character, “producing moral zeal, engendering consistency upon men’s purposes” (p.76).
- Comprehensive: mature sentiment is ordered and coherent, infused with motive. Since mature faith just knows ‘God is’, it does not narrowly insist ‘God is precisely what I say He is’, it is tolerant and inclusive.
- Integral: related to being comprehensive, mature religious sentiment expresses harmony that engenders freedom.
- Fundamentally heuristic: “A heuristic belief is one that is held tentatively until it can be confirmed or until it helps us discover a more valid belief” (p.81).

This list resembles the description of spirituality as developed by some psychologists of religion (Spilka et al., 2003; Wulff, 1997). Therefore, I see spirituality as related to mature religious sentiment. Consistent with this, Genia (1997) had reported a high correlation between her measure of Spiritual Support (SS) factor and Allport’s measure of intrinsic religion (Allport & Ross, 1967). The SS subscale of Genia (1997) included items that are univocal with spirituality. Genia developed her Spiritual Experience Index (SEI) based on theoretical framework drawn from Allport (1950), James (1902) and Fromm (1950), basically to measure spiritual maturity. It is this type of religion that I refer to as religious spirituality: the mature religious sentiment or intrinsic religion. The term religious spirituality is not totally new (see Slife, Hope, & Nebeker, 1999), even Emmons (1999, p.94) has used it. The contrary term, ‘non-religious spirituality’ is also in use (Lines, 2006; Weaver II & Cotrell, 1992), which in Figure 2.6, has been referred to as ‘Spiritual-but-not-religious’. The construct of religious spirituality has been corroborated by the findings of a recent online qualitative study (Gall, Malette, & Guirguis-Younger, 2011) that suggests that “religiousness is an

external tool through which individuals can access their spirituality and relationship to the divine” (p.158).

The objective of the above discussion is not to deny that some people might identify themselves as being “spiritual but not religious” just as there are people who identify themselves as being indifferent to both religion and spirituality, and there are still others who are aggressively atheistic. The intention is rather to present a comprehensive model within which the different attitudes can find a place. More importantly, the discussion also aimed at pointing out that when it comes to delineating the human search for meaning in terms of the sacred, there are not just two watertight entities but instead a number of approaches that fall into a grey area. In the context of the present doctoral project, the multidimensional matrix helps in situating the study within the domain of religious spirituality. This is important at least for two reasons. Firstly, as mentioned earlier, the study was carried out among an African population who may not make a separation between religion and spirituality (Magesa, 1997; Mbiti, 1969). Secondly, religious spirituality is relevant to this project as it uses an intervention with origins in a religious tradition (Christian contemplative practice). The project examines whether the religious contemplative practice would have the potential to open up the one who practices it into the depths of spirituality in terms of a search for meaning and transcendence (Emmons, 1999) and thus facilitate recovery from addiction. But how could the association between religious spirituality and wellbeing in general, and recovery in particular, be theoretically and empirically explored? To address this question, positive psychology offers some promising possibilities.

2.3. Positive Psychology

2.3.1. Positive psychology: Its sources and contents

In 1998, when Martin Seligman was elected as the president of the American Psychology Association (APA) he extended a clarion call to psychology to focus on wellbeing and happiness as it does on pathology and psychological disorder (Seligman, 1999). The stream of psychological accent that followed is referred to as ‘positive psychology’. This is not a new school of psychology but only a new movement. It draws its sources from the history of psychology; and its interests are similar to that of humanistic psychology, but it differs sharply from it in that positive psychology

embraces an empirical approach. It is the focus on existential questions with an empirical grounding that makes positive psychology unique (Seligman & Csikszentmihalyi, 2000, p. 13; see also Seligman & Csikszentmihalyi, 2001).

For a long time, psychology was focused on understanding, treating and preventing psychological disorder. The positive psychology movement challenges this focus on a disease model of human nature, without denying the existence of human problems. It invites scholars and therapists to direct their efforts towards the study of positive affect, happiness and wellbeing. Positive psychology sees happiness or wellbeing as an outcome of a pleasant life: “pursuit of positive emotions about the present, past and future”, engaged life: “using your strengths and virtues to obtain abundant gratification in the main realms of life”, and meaningful life: “use of your strengths and virtues in the service of something much larger than you are” (Seligman, 2003, p.127). These three contributing factors to wellbeing have an internal hierarchy. That is, due to heritability and habituation (Bartels & Boomsma, 2009; Brickman, Coates, & Janoff-Bulman, 1978), pleasures do not consistently contribute to happiness as much as meaningful life does. At still another level, meaningful life provides life satisfaction, gratification and wellbeing. Good life, which is a combination of engaged life and meaningful life, is also understood in the Aristotelian sense of ‘eudemonia’ - doing and living well. In the recent years, positive psychology has begun to explore wellbeing and happiness in the parlance of Greek philosophical terminology of *hedonia* and *eudaimonia* (Deci & Ryan, 2008). While *hedonia* refers to those aspects of wellbeing that arises from pleasure oriented activities, *eudaimonia* refers to fulfilment of our potential as human beings. Furthermore, positive psychology literature makes some distinction between psychological wellbeing, social wellbeing, and emotional wellbeing (Keyes & Lopez, 2002).

Subjective Wellbeing: Diener (1984) has been consistent in the use of the term Subjective Well-Being, to include individual happiness, presence of positive affect, and absence of negative affect. Subjective well-being is an individual experience, which excludes objective conditions like health, comfort, virtue and wealth. In some literature the terms subjective wellbeing and emotional wellbeing are used synonymously (Snyder & Lopez, 2007).

Psychological Wellbeing: Ryff and colleagues have been critical of identifying psychological health with subjective wellbeing (Ryff & Keyes, 1995), and have preferred to use the term ‘human flourishing’ or ‘psychological wellbeing’. In this sense, wellbeing is not synonymous with happiness, and their approach to defining

wellbeing is clearly in terms of *eudaimonia*. Here, wellbeing is defined as “the striving for perfection that represents the realization of one’s true potential” (Ryff, 1995, p.100). Psychological wellbeing is measured in terms of six factors:

- self acceptance – positive attitude towards the self with its multiple aspects including impressions of past life;
- personal growth – feeling of continued development and being open to new experience;
- purpose in life – having goals and a sense of direction in life;
- environmental mastery – feeling competent and being able to manage one’s environment, which includes also the community of people;
- autonomy – ability for self-determination, independence and internal regulation; and finally,
- positive relations with others – having warm and satisfying relationship with others, and being capable of empathy, affection and intimacy.

Social Wellbeing: As mentioned above, there is the third type of wellbeing that challenges the individual emphasis implied in the subjective and psychological approaches to wellbeing. Scholars have evolved constructs and measures to examine, what they call, social wellbeing (Larson, 1993). Social wellbeing is considered in terms of the following dimensions:

- social acceptance – positive attitude towards others;
- social actualization – being optimistic about the future of the society;
- social contribution – believing that individuals have something valuable to give to the society;
- social coherence – understanding the social world as intelligible, logical and predictable; and,
- social integration – feeling part of the community and experiencing a sense of belonging.

We can recognise some aspects that overlap between these three types of wellbeing. For instance, life-satisfaction in subjective wellbeing might have some correspondence to purpose in life in psychological wellbeing, and both might have some resemblance to the dimension of social contribution in social wellbeing (Snyder & Lopez, 2007, pp.71-72).

2.3.2. Character strengths of Values in Action (VIA)

The implication of this, at the pragmatic level, is to understand those psychological factors that contribute to human flourishing and wellbeing (Gable & Haidt, 2005; Linley, Joseph, Harrington, & Wood, 2006). These factors are referred to as “core virtues and character strengths.” Research and intervention based therapy (see Seligman, Rashid, & Parks, 2006), within positive psychology, therefore, are led by a taxonomy of core virtues and character strengths (Peterson & Seligman, 2004), which are also referred to as ‘Values in Action’ (VIA; Peterson, 2006b). This ‘manual of the sanities’ or the Values in Action (VIA) as referred to in a later work (Peterson, 2006b), has a list of 6 core virtues and 24 character strengths (Table 2.1). The VIA is meant to be a positive alternative to the existing catalogues of mental disorders, DSM-IV or ICD-10.

Virtue here is defined as “any psychological process that enables a person to think and act so as to benefit him- or herself and society” (McCullough & Snyder, 2000, p. 1). Peterson and Seligman (2004) suggest that virtues “are universal, perhaps grounded in biology through an evolutionary process that selected for these aspects of excellence as means of solving the important tasks necessary for survival of the species” (p.13). Virtues are expressed in character strengths. “Character strengths are the psychological ingredients – processes or mechanisms – that define the virtues. Said another way, they are distinguishable routes to displaying one or another of the virtues” (Peterson & Seligman, 2004, p.14). The character strengths are said to be correlated to wellbeing and happiness (Park, Peterson, & Seligman, 2004; Peterson, 2006a). Character strengths are trait-like and are measurable in terms of an individual’s behaviour that includes thoughts, feelings and actions. Character strengths are different from talents and abilities, but belong to a family of positive traits.

The ubiquity of these virtues and character strengths, especially in cultural and religious traditions of the world, has been duly acknowledged (Peterson & Seligman, 2004, pp.40-50; Dahlsgaard, Peterson, & Seligman, 2005; Selvam & Collicutt, 2013; Snyder & Lopez, 2007, pp.23-50). In generating entries for the classification of the VIA, Peterson & Seligman (2004) relied on traditional and contemporary cultures, on historical luminaries, and on scholars. They came up with the following criteria to scrutinise the candidate strengths. These criteria, which are the pertinent features of character strengths, also help us understand their meaning in greater depth (Peterson &

Seligman, 2004, pp.14-27; Park & Peterson, 2007, p.296; see also Peterson, 2006, pp.29-48):

1. *Fulfilling*: The selected character strength contributes to various fulfilments that constitute good life, for oneself and for others; fulfilment includes, but goes beyond, pleasure. Character strengths are dispositions to act, desire and feel, which involves the exercise of judgement and which leads to human flourishing (Ong & van Dulman, 2007).
2. *Moral Value*: The candidate character strength “is morally valued in its own right, even in the absence of obvious beneficial outcomes” (p.19). However, it is not to be understood inherently to carry moral implications in a philosophical or religious sense, in such a way that they deserve moralistic judgement. Nonetheless, the practice of the character strength does presuppose “the role of effort and will” (Peterson & Seligman, 2004, p.20).
3. *Non-threatening to others*: The practice of a character strength deserves praise, but “the display of a strength by one person does not diminish other people in their vicinity” (Peterson, 2006, p.31), that is, it does not jeopardise the possibility of a win-win situation.
4. *Nonfelicitous opposite*: The character strength has obvious antonyms that are negative; this also implies that the strength itself is really in positive terms.
5. *Traitlike and measurable*: Character strength is measurable in terms of individual’s behaviour and attitudes; this also means that the strength has “a degree of generality across situations and stability across time” (Peterson & Seligman, 2004, p.23). This criterion is further discussed below.
6. *Paragons*: This criterion flows from no. 3 above. There are individuals who are acclaimed as ideal models of the character strength in traditional and popular culture. “A character strength is embodied in consensual paragons” (Peterson & Seligman, 2004, p.24).
7. *Prodigies*: There are also some prodigies with respect to the strength. Larger society admires individuals, especially younger persons, who exhibit a high degree of a particular strength; however, this criterion may not be applied to all strengths.
8. *Selective absence*: Contrary to the above criterion, there could also be individuals “who show – selectively – the total absence of a given strength” (Peterson & Seligman, 2004, p.26).

9. *Distinctiveness*: Every strength is unique in its own right, and distinct from other positive traits. Conceptually and empirically they are not redundant.
10. *Institutions*: The larger society provides institutions and associated rituals for cultivating that strength, and sustaining its practice.

There are a few relevant points that emerge from the above list that need further clarification. Are the character strengths traits or states, or are they aptitudes or abilities? Are they malleable? If character strengths are not malleable in themselves, what is the use of strengths-based interventions (such as those reported by Norrish, & Vella-Brodrick, 2009 and by Proctor 2011)? And are they heritable? Peterson and Seligman (2004) in the presentation of the VIA clearly state:

The stance we take toward character is in the spirit of personality psychology, and specifically that of trait theory, but not the caricature of trait theory so unfairly held up as a straw man and then criticized by social learning theorists in the 1970s. We instead rely on the “new” psychology of traits that recognizes individual differences that are stable and general but also shaped by the individual’s setting and thus capable of change (p.10).

This implies that the VIA presents a set of traits-like character strengths that are malleable (see also Seligman, 2004), and their use can be “marshalled and maximised” (Linley, Willar, & Biswas-Diener, 2010; see also, Seligman, Steen, Park, & Peterson, 2005). In a recent work, however, Nofle, Schnitker and Robins (2011) point out to the overlap between Values in Action (VIA) - classification of character strengths and the Big Five trait dimensions. They add in the same vein that, “the empirical structure of the character strengths has yet to be replicated... Future studies, especially those utilizing large samples, are needed to clarify the structure of the VIA” (p.215). Moreover they point out that the distinction between the Big Five and the VIA needs to be better clarified.

Are character strengths genetically heritable? There is one known study (Steger, Hicks, Kashdan, Krueger, & Bouchard, 2007), which examined a sample of 336 middle-aged twins drawn from the Minnesota Twin Registry, out of whom 51 were matched monozygotic pairs and 40 matched dizygotic pairs who completed the VIA inventory of strengths. The results suggest significant genetic and non-shared environmental effects for 21 of 24 character strengths with little evidence of shared environmental contributions. The estimates of additive genetic factors ranged between 14% and 59% of genetic influence, with a median estimate of 42%. This result, which resembles similar studies in the heritability of traits, the authors suggest, has to be interpreted with

due consideration to the small sample size, the age group (average age 49), and gender difference which was not examined in the present study.

What follows is a brief description of the 24 character strengths (Table 2.1). Each of the character strengths is briefly defined, pointing out their lexical and conceptual equivalents as they are expressed within positive psychology literature. Since the six core virtues are considered tentative and provisional, we will focus only on the 24 character strengths. The grouping and order of character strengths in Table 2.1 are based on Peterson and Seligman (2004). However, future listing throughout this work will follow the order that is presented in the Values in Action – Inventory of Strengths (Peterson & Park, 2009).

Table 2.1.	
Values in Action	
Core Virtues	Character Strengths (CS)
I.	Wisdom and Knowledge Creativity (originality, ingenuity) Curiosity (interest, novelty-seeking, openness to experience) Open-mindedness (judgement, critical thinking) Love of Learning Perspective (wisdom) Bravery (valour)
II.	Courage Persistence (perseverance, industriousness) Integrity (authenticity, honesty) Vitality (zest, enthusiasm, vigour, energy) Love
III.	Humanity Kindness (generosity, nurturance, care, compassion, altruistic love, “niceness”) Social Intelligence (emotional intelligence, personal intelligence) Citizenship (social responsibility, loyalty, teamwork)
IV.	Justice Fairness Leadership Forgiveness and Mercy
V.	Temperance Humility (modesty) Prudence Self-regulation (self-control) Appreciation of beauty and excellence (awe, wonder, elevation)
VI.	Transcendence Gratitude Hope (optimism, future-mindedness, future-orientation) Humour (playfulness) Spirituality (religiousness, faith, purpose)

CS1. Curiosity

Curiosity represents “one’s intrinsic desire for experience and knowledge” (Peterson & Seligman, 2004, p.125). Curiosity is particularly noticed when someone seeks knowledge that goes beyond the principle of “utility of the information to the agent.” It is as if information is sought for its own sake (Loewenstein, 1994, p.75). Thematic correlates of curiosity include interest, novelty-seeking, and openness to experience. While curiosity and interest are used interchangeably, novelty-seeking involves a propensity for new and exciting experiences, sometimes marked by a willingness to endure risks. In this way, novelty-seeking is also associated with courage. “Openness to Experience” is a higher order personality dimension included as one of the traits in the Five Factor Model (Costa & McCrae, 1992). Items in the VIA measurement include:

- I find the world a very interesting place.
- I am never bored.
- I really enjoy hearing about other countries and cultures.

CS2. Love of Learning

Love of learning describes an individual’s interest to acquire information and skill, and the way one engages new information and skills. Thus, it includes aspects of motivation, content, and methodology in engaging knowledge. People acknowledge the presence of a positive affective state when engaging in new knowledge. Students, for instance, are said to possess the strength of love of learning when they study not only for extrinsically oriented rewards, such as higher grades, but also for intrinsic values like the appreciation of, and personal interest in, the subject-matter (see Covington, 1999). Love of learning shows some resemblance to the character strength of curiosity. It is measured with items that include the following:

- Every day, I look forward to the opportunity to learn and grow.
- I always go out of my way to visit museums.
- I love to read non-fiction books for fun.

CS3. Open-mindedness

This character strength consists in the ability to seek evidence against one’s own beliefs, plans, or goals. Open-mindedness can also be referred to as a sense of judgement and critical thinking. In simple words, open-mindedness consists in a

constant effort towards the elimination of one's own biases and stereotypes. Typical items in VIA instrument are:

- I always identify the reasons for my actions.
- I value my ability to think critically.
- My friends value my good judgment.

CS4. Creativity

Creativity can be observed in behaviours that exhibit, and ideas that express, great degree of originality and adaptive character (Peterson & Seligman, 2004, p.110). Creativity may be seen as a mental process, expressed by certain individuals, and can be analysed in terms of tangible products (Simonton, 2005, p.191.) Studies on creativity also focus on expressions of creativity across life-span and the aspects of environment that contribute to these expressions (Simonton, 2000). In line with the central focus of positive psychology on wellbeing, creativity is to be valued not only in arts and sciences, but also in how individuals deal with their daily life. To achieve a true sense of wellbeing, overcoming exaggerations of creativity that can jeopardise other aspects of life, there is a need to balance creativity with wisdom (Bacon, 2005). Lexical alternatives of creativity include originality, ingenuity, adaptability, novelty, surprising, unusual, and insight. Typical items in the measurement would be:

- Being able to come up with new and different ideas is one of my strong points.
- In the last month I have found an original solution to a problem in my life.
- I have a powerful urge to do something original during this next year.

CS5. Social Intelligence

Social intelligence is a concept that is related to emotional intelligence and personal intelligence. Personal intelligence refers to the ability to “assess one's own performance at a variety of tasks,” including the motives and emotions that accompany them; emotional intelligence refers to the capacity to identify emotional states of others, to understand how these states can influence relationships, and how best to manage emotions; social intelligence is the ability to get people to cooperate, being aware of the dynamics of such interaction, and to respond wisely in these situations (Peterson & Seligman, 2004, pp.338-339). In summary, this type of intelligence refers to the ability to be aware of one's own motives and feelings, to be sensitive to that of others, and to discern how to handle them, as shown in the items of the VIA:

- I am good at sensing what other people are feeling.
- I am aware of my own feelings and motives.
- I always know what to say to make people feel good.

CS6. Perspective

Perspective or wisdom is conceptualised “in terms of wise processes, wise products, or wise people” (Peterson & Seligman, 2004, p.182). It is distinct from intelligence, and represents a higher level of knowledge and judgement. Wisdom is closely related to self knowledge, meaning of life, and being able to use right judgement in relationships. Thus, this special type of knowledge is used for the well-being of oneself and others. In this way, wisdom has intra- and inter-personal dimensions (Kunzmann & Stange, 2007, p.306). Here are some samples of items that measure perspective:

- I have never steered a friend wrong by giving bad advice.
- People describe me as "wise beyond my years."
- I am always able to look at things and see the big picture.

CS7. Bravery

Bravery or valour is seen in a voluntary action, which involves some danger, and which an individual undertakes after due understanding of risks involved. It also includes “speaking up for what is right even if there is opposition; acting on convictions even if unpopular” (Peterson, 2006, p.32). Certain conditions are considered necessary to courage: freedom, fear, risk, uncertainty, an endangered good and a morally worthy end (Shelp, 1984, p.351). Examples of items:

- I have taken frequent stands in the face of strong opposition.
- I have overcome an emotional problem by facing it head on.

CS8. Persistence

It is defined as “voluntary continuation of a goal-directed action in spite of obstacles, difficulties, or discouragement” (Peterson & Seligman, 2004, p.229). Continuing to perform something that is fun and rewarding in itself does not entail persistence, though there may be some pleasure at the completion of the demanding task that is marked by persistence. ‘Persistence’ and ‘perseverance’ are used interchangeably, and sometimes, the term, ‘industriousness’ is also used. Industriousness denotes an attitude of consistently working at something (Eisenberger,

1992) even if there will be only a delayed gratification. Typical items in the measurement would be:

- I always finish what I start.
- I am a goal-oriented person.
- I am a hard worker.

CS9. Integrity

Integrity, which is related to authenticity and honesty, consists in being true to oneself, and admit accurately one's inner states, intentions and commitments (Peterson & Seligman, 2004, pp.251-252). While authenticity is perceived in the avoidance of pretence, honesty is refusing to fake reality (Locke, 2005, p.308; see also Harter, 2005). Rogers (1961) considered integrity as one of the traits of fully functioning persons.

Here are some items used in measuring integrity:

- I always keep my promises.
- My friends tell me that I know how to keep things real.
- Others trust me to keep their secrets.

CS10. Kindness

Kindness, generosity, nurturance, care, compassion, altruistic love, and "niceness" are closely related terms that indicate "a common orientation of the self toward the other" (Peterson & Seligman, 2004, p.326). Kindness consists in doing favours or good deeds to others, while compassion is more related to the emotion evoked at the sufferings of others. Compassion becomes significant when the troubles of the other person are serious, not self-inflicted, and the agent of compassion is able to picture oneself in the same predicament as the one in trouble (Cassell, 2005, p.435).

Assessing kindness involves very practical indicators as in:

- I have voluntarily helped a neighbour in the last month.
- I always call my friends when they are sick

CS11. Love

Peterson and Seligman attempt to define love in terms of psychology:

Love represents a cognitive, behavioural, and emotional stance toward others that takes three prototypical forms. One is love for the individuals who are our primary sources of affection, protection, and care... [like] a child's love for a parent. Another form is love for the individuals who depend on us to make them feel safe and cared for... [for instance,] a parent's love for a child. The third

form is love that involves passionate desire for sexual, physical, and emotional closeness with an individual whom we consider special and who makes us feel special (Peterson & Seligman, 2004, p.304).

This is also referred to as intimacy (Peterson, 2006, p.32), or as attachment (Hazan & Shaver, 2004) and is different from compassion or kindness. Hazan and Shaver (1984) have explored the parallels between the three attachment styles among infants – secure, avoidant and anxious/ambivalent – and in the way adults experience romantic love.

Items in the VIA instrument include:

- I can express love to someone else.
- I can accept love from others.

CS12. Citizenship

This character strength, which includes social responsibility, loyalty, and teamwork, represents a general commitment to the common good. This commitment does not immediately imply being politically concerned, but it is the ability to be meaningfully part of any group – small and large. Without the neglect of the self, it consists in going beyond self-interest, in the fulfilment of duty. It is also expressed in being loyal to friends, being a good team-player, having a strong civic sense, and contributing to social causes. Items in the VIA that measure citizenship include:

- I never miss group meetings or team practices.
- I really enjoy being a part of a group.
- I am an extremely loyal person.

CS13. Fairness

In simple words, it is “treating all people the same according to notions of fairness and justice; not letting personal feelings bias decisions about others; giving everyone a fair chance” (Peterson, 2006, p. 33). On a deeper note, fairness presupposes moral judgement – being able to determine what is morally right or wrong, and what is morally permitted or proscribed. Fairness includes the two psychological traditions in moral reasoning: the justice reasoning approach and the care reasoning approach. The former is the awareness that it is wrong to cheat, or to discriminate, or to use people; the latter consists in acknowledging that it is humane to be kind and to respect everyone (Peterson & Seligman, 2004, pp.392, 394-396). Typical items in VIA instrument are:

- I always admit when I am wrong.
- I treat all people equally regardless of who they might be.
- I refuse to take credit for work I have not done.

CS14. Leadership

Leadership is a personal quality that fosters the cognitive and temperamental ability to influence and help others. While working in groups, leadership is particularly noticed in the ability to motivate others to move towards the objectives of the group while fostering good relationships among members. Leadership could be measured through items like:

- I am very good at planning group activities.
- To be an effective leader, I treat everyone the same.
- My friends always tell me I am a strong but fair leader.

CS15. Self-regulation

As one of the character strengths of temperance, self-regulation can also be referred to as self-control or self-discipline. The expressions of self-regulation and its constructs refer to how a person exerts control over his or her impulses and behaviour so as to pursue their goals while maintaining their moral standards. It can also mean a rhythm of life that facilitates self-efficacy (Bandura, 1999). “Delay of gratification constitutes an important paradigm of self-regulation,” implying that a person with self-regulation is able to resist the temptation to choose an immediate, small reward in order to obtain a larger benefit, even if the latter was delayed (Peterson & Seligman, 2004, p.500).

- I am a highly disciplined person.
- I can always stay on a diet.
- I can always say "enough is enough."

CS16. Prudence

Prudence consists in being aware of the consequences of one’s choices, and developing strategies in self-management so as to move towards the achievement of one’s goals. Prudent individuals also have a moderate and flexible attitude to life, and constantly strive to balance between their ends and means (Peterson & Seligman, 2004, p.478). Prudence is not to be identified with excessive caution, nor is it selfish, endless calculations. Haslam (1991) succinctly summarises the Aristotelian understanding of prudence as it is in the latter’s *Psychology of Action*: “Prudence is essentially concerned with the personal future, in the choice, planning, pursuit, and incontinent betrayal of far-

sightedly virtuous ends. It also touches on self-continuity, moderation and flexibility, and the pursuit of self-interest vs social concerns” (p.151), as in some items of VIA:

- I always think before I speak.
- I always avoid activities that are physically dangerous.
- I think through the consequences every time before I act.

CS17. Appreciation of beauty and excellence

This character strength in transcendence consists in “noticing and appreciating beauty, excellence, and/or skilled performance in all domains of life, from nature to art to mathematics to science to everyday experience” (Peterson, 2006, p.33). Awe, wonder, and elation are emotional states that accompany appreciation. Typical items in the VIA that deal with appreciation of beauty:

- It is important to me that I live in a world of beauty.
- The goodness of other people almost brings tears to my eyes.
- I experience deep emotions when I see beautiful things.

CS18. Gratitude

Gratitude includes an appropriate response to receiving gifts; gift is understood as a reward that was beyond what one worked for. This includes then being aware of, and thankful for, the good things that happen in life. The three components of gratitude proposed by Fitzgerald (1998) have been generally accepted by psychologists: (a) a warm sense of appreciation for somebody or something; (b) a sense of goodwill toward that person or thing, and (c) a disposition to act on what flows from appreciation and goodwill (see also Peterson & Seligman, 2004, p.555; Emmons & McCullough, 2004, p.5). Gratitude flows from the appreciation of the nature and purpose of the universe and one’s place in it. It also becomes an expression of hope and optimism; and often overflows into interpersonal relationships. Gratitude is assessed through items like:

- I always express my thanks to people who care about me.
- At least once a day, I stop and count my blessings.

CS19. Hope

“Hope, optimism, future-mindedness, future-orientation represent a cognitive, emotional, and motivational stance towards the future” (Peterson & Seligman, 2004, p.570). In more precise terms, this stance consists in “expecting the best in the future and working to achieve it; believing that a good future is something that can be brought

about” (Peterson, 2006, p.33). In simple terms hope is expressed in optimism and positive outlook about life and people around. Hope is related to future orientation, and an adequate grasp of the meaning of life and existence. Hope flows from human ability to imagine, that is, to see what is not here and now. From this ability flows an outlook that all is going to be well. This sense of hope could often emanate from one’s belief in the existence of a greater power, and/or from a humanistic acceptance of the goodness of humanity. Optimism and hope are measured by items like:

- I can always find the positive in what seems negative to others.
- Despite challenges, I always remain hopeful about the future.

CS20. Spirituality (religiousness, faith, purpose)

“Spirituality and religiousness refer to beliefs and practices that are grounded in the conviction that there is a transcendental (non-physical) dimension of life” (Peterson & Seligman, 2004, p.600). These beliefs and practices may be expressed in having coherent beliefs about the higher purpose and meaning of the universe; knowing where one fits in the larger scheme; having beliefs about meaning of life that shape and provide comfort (Peterson, 2006, p.33). Two typical items in the VIA:

- I believe that each person has a purpose in life.
- I believe in a universal power, a god.

CS21. Humility

Although humility may falsely be equated with a sense of unworthiness and low self-regard, true humility is a rich, multifaceted construct that entails an accurate assessment of one's characteristics, an ability to acknowledge limitations, and a "forgetting of the self" (Tangney, 2000). Modesty, which is related to humility, “refers primarily to the moderate estimation of one’s merits or achievements and also extends into other issues relating to propriety in dress and social behaviour” (Peterson & Seligman, 2004, p.463). Some items used to measure humility include:

- I do not like to stand out in a crowd.
- I do not act as if I am special person

CS22. Humour

Humour can have at least two possible strands of meaning. First, it refers to the ability to recognise, enjoy and even create ‘comic’. Comic includes a whole range of harmless incongruent situations – jokes, comedy, teasing, sarcasm, satire, irony, fun, wit

and so on. It could emerge out of a use of language, or the body, or arrangement of objects. In this sense, humour is an ability to have wholesome fun, it is related to playfulness, and is one type of aesthetics. The second meaning refers more to an attitude towards situations in life: being able to see the lighter side of things, being composed and cheerful even in the face of adversity, and maintaining a good mood. While in the first sense humour may be related to physical laughter, in the second sense it is more an internal attitude (see Martin, 2004). The items in VIA measuring humour are quite straight-forward:

- I try to have fun in all kinds of situations.
- I try to add some humour to whatever I do.

CS23. Vitality

Vitality consists in “approaching life with excitement and energy; not doing things halfway or half-heartedly; living life as an adventure; feeling alive and activated” (Peterson, 2006, p. 32). Other substitute terms for vitality would be zest, enthusiasm, vigour and energy. Vitality presupposes a physiological wellbeing – free from fatigue and illness, and a psychological wellbeing – integration of the self at the intrapersonal and interpersonal levels (see Ryan & Frederick, 1997). Some items used to measure vitality include:

- I awaken with a sense of excitement about the day's possibilities.
- People describe me as full of zest.

CS24. Forgiveness and Mercy

Forgiveness is a set of pro-social changes that needs to be understood in terms of what happens inside the person who has been hurt – intra-psychic consequence; and between the one hurt and the relationship partner - interpersonal consequence (Baumeister, Exline, & Sommer, 1998, p.85) According to Enright and Coyle (1998, p.140) forgiveness consists in three steps: the injured person recognises an actual injustice; the injured person chooses willingly to respond with mercy rather than with justifiable retribution; and to be concerned with the good of the interaction. Forgiveness can be considered a particular expression of mercy that includes “kindness, compassion, or leniency towards a transgressor” (Peterson & Seligman, 2004, p.446). At one level, forgiveness could be expressed in a dialogical request for redress; on another plane, it could also be a gratuitous offer of mercy and openness to reconciliation. Some items from VIA that measure forgiveness:

- I do not want to see anyone suffer, even my worst enemy.
- I try to respond with understanding when someone treats me badly.

2.4. Psychology of Religion and Positive Psychology

2.4.1. *Positive psychology as a theoretical framework for psychology of religion*²

Psychology of religion in search of a theoretical framework

Discussion on theoretical and methodological issues related to psychology of religion (PR) is ongoing (Emmons & Paloutzian, 2003; Gorsuch, 1988; Hill & Gibson, 2008; Jonte-Pace & Parsons, 2001; Spilka et al., 2003, pp. 1-23; Wulff, 1997, pp.1-19; just to cite a few). In its recent history, PR has moved from the religious orientation model of 1970s and 80s that was influenced by the contribution of Allport and Ross (1967), through a measurement paradigm (Gorsuch, 1988) to “a multilevel interdisciplinary paradigm” (Emmons & Paloutzian, 2003). While the measurement paradigm could only yield “a collection of data without a guiding theoretical framework” (Dittes, 1969 as cited by Hill & Gibson, 2008, p.20), the attempts at seeking an overarching theoretical framework, like the meaning-based approach proposed by Park and Paloutzian (2005), end up stressing only a limited aspect of religion, for instance, religion as a meaning system. Therefore, in the opinion of Hill and Gibson, psychology of religion still suffers from an “inability to develop sustaining substantive theories or concepts that integrate multiple disparate lines of research” (Hill & Gibson, 2008, p.20).

There are two fundamental undercurrents in this discussion: one, methodological, and the other, conceptual or theoretical. Every science has its own methodology, and research in contemporary psychology is largely empirical, even if this presupposes ideographic and nomothetic theorizing (Haslam & McGarthy, 2003, p.13). However, often the empirical approach in psychology has leant towards a positivist option. Embracing the positivist approach, including the use of measurements, would provide a scientific rigour to psychology of religion. But there is a need for variety within the empirical framework; for instance, an increased use of qualitative methods could facilitate a greater dialogue between cultural contents of religion and spirituality in the psychological study of religion (Belzen, 2010; see also Hood, 2010). This openness would protect psychology of religion from naïve realism and postmodern anti-realism, and help it to remain within the framework of critical realism: that “reality is

² A previous version of this section was presented at a symposium organised by the British Sociological Association – Sociology of Religion Study Group: *Teaching and Studying Religion – choices and challenges*. London, Imperial Wharf, 15 December 2011.

apprehended by the human mind which attempts to express and accommodate reality as best it can with the tools at its disposal - such as mathematical formulae or mental models” (McGrath, 2004, p.195; see also Bhasker, 2008). Within a critical realist framework then, a balance between inductive and deductive processes is needed: new data leads to corroborating existing hypotheses and the verification and improvement of old theories, while also developing new ones. In this context, grounded theory in itself could be a necessary but not a sufficient approach for the cumulative progress of scientific study (Layder, 1998; Thomas & James, 2006), including the psychological study of religion. Therefore, both theory-driven and data-driven research approaches are needed. How could research within PR be theory-driven? I see three possible tendencies in the use of theoretical frameworks within psychology of religion. I briefly summarise them below:

An over-arching meta-theory: This would be an attempt to explain all religious phenomena within a single theory, such as the psychoanalytical approach. If the theoretical framework is monolithic and restrictive, would it not leave PR impoverished? Besides, there are some inherent aspects in religion that might prove such an enterprise difficult. Religion, the subject-matter of PR, is a complex phenomenon, as I have pointed out earlier. Besides the problem of definition, the elements that make up religion are multidimensional. Therefore the theoretical framework for PR needs to be also multidimensional.

Mid-level theories: Some scholars, like Hill and Gibson (2008), propose mid-level theories to be used in psychology of religion. They do not expend much effort to discuss the nature of these theories; they simply jump to present three samples: attachment theory, attribution theory, and coping theory. What they call, mid-level theories, are closely related to the “middle-range theories’ in sociology and archaeology. Middle-range theory attempts to bridge the gap between theory and empirical evidence (Merton, 1968). It does this by looking at the data and asking ‘why’ questions. This approach protects social science from being prejudiced by a grand-theory. This is acceptable given our discussion above about the complexity of religion. On the other hand, mid-level theories could lead to a piecemeal approach without a coherent thread to hold together different research attempts in psychology of religion. Therefore, what is needed is a set of psychological theories that offer the framework(s) to explore the diverse dimensions of religion and spirituality.

Multidimensional Interdisciplinary Paradigm: Multidimensional approaches to the study of religion (Hood et al., 1996, p. 11) call for a multilevel interdisciplinary

paradigm. This paradigm is “a framework within which theories of different scope can develop and cohere” (Paloutzian & Park, 2005, p.553) within the broader paradigm of psychology itself. Such an approach needs to “recognize the value of data at multiple levels of analysis while making nonreductive assumptions concerning the value of spiritual and religious phenomena” (Emmons & Paloutzian, 2003, p.398). Theoretical frameworks chosen for the psychological study of religion need to facilitate the consideration within the psychological discourse of what I have called the four C’s of religion, namely, creed, code, cult, and community; and at the same time, they have to offer the possibility for the scientific enquiry of spirituality – aligned and non-aligned within religious traditions.

The challenges to, and the possibilities for, psychology of religion are also the challenges and possibilities for the present study. How could these challenges be handled, and the possibilities be harnessed? Could positive psychology be a viable multidimensional theoretical framework for the psychological study of religious spirituality? How open is positive psychology to the use of mixed methods – qualitative and quantitative?

Positive psychology as a viable theoretical framework

Through the present study, I would like to suggest that positive psychology provides a multidimensional interdisciplinary paradigm for the psychological study of religion. There is a growing body of empirical studies that has identified significant links between religion and spirituality and the themes of positive psychology, as seen in the special issue of the journal, *Mental Health, Religion and Culture* (Joseph, Linley, & Maltby, 2006), and the review by Emmons (2006). Some of the psychologists of religion who began their work even before the formation of the positive psychology movement have now preferred to situate themselves within positive psychology (see, Pargament & Mahoney, 2009). For instance, Pargament has been studying the relationship between wellbeing and religious coping (Pargament, 1997). Several parallels can be discerned between coping theory and positive psychology (Mahoney, Krumrei, & Pargament, 2008): Religious coping examines how people seek or maintain significance in times of stress; “that significance may be material (e.g., a house), physical (e.g., health), social (e.g., intimate relationships), psychological (e.g., meaning), or spiritual (e.g., closeness with God)” (Pargament, 1997, p.216). The same is true of other psychologists like Emmons (1999, 2006). He has been studying the role of ‘ultimate concern’ or sense of purpose vis-à-vis religion and spirituality in human

wellbeing. Besides these traditional themes within psychology of religion, there are new themes that are emerging within this division of psychology thanks to the influence of positive psychology. Researchers at the Psychology and Religion Research Programme in the University of Cambridge see positive psychology as a possibility to pursue the dialogue between religious traditions and human qualities like forgiveness, gratitude, and hope (Watts, Dutton, & Gulliford, 2006).

Virtues and character strengths that have been hitherto largely the subject matter of theology and philosophy have now become a central framework for positive psychology. As described earlier on page 41, one of the criteria applied in the original selection of the candidate strengths to the catalogue of the VIA was their ubiquity across cultures and religious traditions (Peterson & Seligman, 2004; Peterson 2006). More precisely, this was achieved by examining the philosophical and religious traditions of China (Confucianism and Taoism), South Asia (Buddhism and Hinduism), and the West and Ancient near East (Ancient Greek philosophy, Judaism, Christianity and Islam), looking for the insights each provide for the pleasant, good, and engaged life (Dahlsgaard et al., 2005; Peterson & Seligman 2004; Snyder & Lopez 2007).

Recently, Belzen (2010) has suggested that psychology be culturally sensitive, particularly when studying religious phenomena. To achieve this, he calls for a dialogue between cultural psychology and psychology of religion. This dialogue is already taking place within positive psychology. Haidt (2003) invited scholars within positive psychology to look “to other cultures and other historical eras for ideas and perspectives on virtue and the good life” (p.275). He also supposed that world religions hold a great promise of “highly developed and articulated visions of virtues, practices, and feelings, some of which may even be useful in a modern secular society.” In a similar vein, Maltby and Hill (2008) envisioned religion to be a fertile ground for positive psychologists to study systematically the “common denominators” of virtues and character strengths. There have been other similar efforts in facilitating a dialogue between positive psychology and various religious and cultural traditions, either in support, or in critique, of positive psychology and its constructs (Chu & Diener 2009; Delle Fave & Bassi, 2009; Sundararajan, 2005; Joseph, Linley, & Maltby, 2006; Watts, Dutton, & Gulliford, 2006; Vitz, 2005; Zagano & Gillespie, 2006). These provide some evidence for the interdisciplinary-multidimensionality of positive psychology. At the same time, there is a coherence that is created by the focus of positive psychology on wellbeing and happiness. Even if this is still a work in progress, this attempt opens up many avenues for psychology of religion, even in exploring the mediators of spiritually

induced recovery from addictive behaviour among young adults in Africa, as it is the case in the present study. Within the framework of positive psychology, recovery itself could be understood in terms of wellbeing: subjective, psychological and social. These dimensions of wellbeing have been defined in the previous section, and its connection to recovery will be explored in the next chapter.

As regards the empirical approach that would provide psychology of religion with its scientific rigour, positive psychology appears to offer much. Several questionnaires that are used currently within positive psychology could act as measures that are linked to themes of psychology of religion: for instance, Adult Hope Scale (Snyder et al., 1991), Meaning of Life Questionnaire (Steger, Frazier, Oishi, & Kaler, 2006), Gratitude Questionnaire (McCullough, Emmons, & Tsang, 2002), and Mindful Attention Awareness Scale (Brown & Ryan, 2003). Initially, in an attempt to “adapt what is best in the scientific method” (Seligman & Csikszentmihalyi, 2000, p.7), PP might have tended to be positivist in its approach. The preferential option for quantitative methods within positive psychology was also prompted by its eagerness to distinguish itself from humanistic psychology (Peterson, 2006a; Franco, Friedman, & Arons, 2008; Friedman, 2008). However, qualitative methods are increasingly being used (e.g. Krause, Evans, Powers, & Hayward, 2012; Reynolds & Kee Hean, 2007), particularly in cross-cultural studies in positive psychology (Delle Fave, & Bassi, 2009; Selvam & Collicutt, 2013). Ong and van Dulmen (2007, pp.292-323) consider the possibility of integrating quantitative and qualitative approaches in positive psychology. This is because, as Robbins (2008) contends, “Eudaimonic happiness cannot be purely value-free, nor can it be completely studied without using both nomothetic and idiographic (i.e., quantitative and qualitative) methods in addressing problems of value...” (p. 96). Interestingly, there is also an increasing number of studies in positive psychology that use mixed methods (Grant, Curtayne, & Burton, 2009; Pöhlmann, Gruss, & Joraschky, 2006).

How do we identify the convergent points for psychology of religion and positive psychology? Consistent with the objectives of the present study, one way of answering this question is to explore how ‘spirituality’ is operationalized within psychology of religion, particularly in studies that focus on wellbeing, and to identify potential links to positive psychology.

2.4.2. *Parallels between constructs of spirituality and character strengths*

A simple search in EBSCOhost digital source using the keywords, ‘conceptual components’ and ‘spirituality’ suggested the following sources. As pointed out earlier, ‘spirituality’ has been used in the search rather than the relatively new construct, ‘religious spirituality’.) In what follows, I will summarise the dimensions of spirituality that emerge from these sources, and attempt to show the parallels between these dimensions and character strengths.

Emmons (1999/2003), in his *Psychology of Ultimate Concerns* conceives spirituality as a type of intelligence, and considers ‘spiritual intelligence’ as playing a role in human personality and adaptive functioning. It is a set of interrelated abilities and skills (Emmons, 2000). Though Emmons bases his starting point for spiritual intelligence in the concept of multiple intelligences, Howard Gardner himself has been critical of this type of intelligence (Gardner, 2000). Emmons (2000) has listed five components of spiritual intelligence, which are useful in understanding spirituality itself. Here I list and describe the five components:

- *The capacity to transcend the physical and material*: it is the capacity to go beyond the physicality of time and space, and might include the relationship with a divine being. This state of transcendence could be more intense and specific in heightened states of consciousness.
- *The ability to experience heightened states of consciousness*: this would include mystical experiences. In these experiences there is an awareness of the ultimate reality marked by oneness in which boundaries of normal waking consciousness disappear. Emmons suggests that spiritually intelligent people possess the skills to enter into states of transcendence and heightened states of consciousness.
- *The ability to sanctify everyday experience*: sanctification consists in interpreting daily experiences and goals, in the light of faith. This could facilitate the obtainment of goals and promote wellbeing. Aided by religious sentiments, for instance, parenting could be seen as a ‘generative work’, which then provides significance to a mundane activity. In this sense, even individual striving becomes a collaborative task together with a higher power.
- *The ability to utilise spiritual resources to solve problems*: this dimension of spiritual intelligence encompasses religious and spiritual coping. Spiritual resources could help in the reframing of a problem and in seeking alternative solutions to the problem.

- *The capacity to be virtuous*: to show forgiveness, to express gratitude, to be humble and to display compassion and wisdom.

Emmons had expressed openness about the components listed above, particularly about the specific number of items on the list. He acknowledges that they are not exhaustive. It is not within the scope of the present work to critically evaluate the validity of the constructs of social intelligence, nor to enumerate how it has been further developed by other scholars (for a review see, Hosseini, Elias, Krauss, & Aishah, 2010). Suffices it to point out that these constructs have some obvious links to positive psychology.

The latest version of Piedmont's Assessment of Spirituality and Religious Sentiments (ASPIRES) is available in both a self-report and observer-rating forms ((Piedmont, Kennedy, Sherman, Sherman, & Williams, 2008). It contains 12 items relating to Religious Sentiments and 23 items concerning Spiritual Transcendence. We will focus here on the latter, which was originally called the 'Spiritual Transcendence Scale (STS), with 24 items (Piedmont, 1999). It has also been used in addiction studies (Piedmont, 2004). Piedmont (1999) defines Spiritual Transcendence as "the capacity of individuals to stand outside of their immediate sense of time and place to view life from a larger, more objective perspective" (p. 988). He sees transcendence as a motivation that drives individuals' behaviour. For those who have a sense of transcendence religion and spirituality are ample avenues. However, it is clearly different from religiousness.

Piedmont (1999) suggested the inclusion of Transcendence as the sixth factor to the Five Factor Model (FFM) of personality, in addition to Open – Close-minded; Conscientious (stable) – Disorganised; Extraverted – Introverted; Agreeable – Disagreeable; Nervous – Calm/relaxed (Costa & McCrae, 1992). Piedmont proposes the following components to spiritual transcendence (Piedmont, 1999, p.989):

- a sense of *connectedness*: an awareness that one is part of a large orchestra in which even the individual's contribution is vital for the continuing harmony;
- *universality*: a belief in the unitive nature of life;
- *prayer fulfilment*: a feeling of consolation as a result of an encounter with the transcendent reality;
- *tolerance of paradoxes*: the ability to look at reality around in terms of "both/and" rather than "either/or"

- *nonjudgmentality*: the ability to accept others on their own terms, without making value judgements, and a sensitivity to the needs of others;
- *existentiality*: a desire to live in the here and now, and embrace the opportunities for growth;
- *gratefulness*: an innate sense of wonder and thankfulness for the shared and unique features of one's life.

As we can see there are correspondences between these components and what Peterson (2006) lists as character strengths of transcendence (Table 2.1). This psychometrically robust scale (Piedmont & Leach, 2002; Piedmont, 2007) consists of three subscales that integrate the components listed above (Piedmont, 2001): Prayer Fulfilment – “a feeling of joy and contentment that results from personal encounter with a transcendent reality”; Universality – “a belief in the unitive nature of life”; and Connectedness – “a belief that one is part of a larger human reality that cuts across generations and across groups” (p.5). It is interesting to note that the three subscales of the STS have some, albeit vague, resemblance to the three guiding principles of positive psychology proposed by Seligman (2002; 2003): Pleasant life (life of enjoyments and *positive affect*), Good life (life of *engagement* using character strengths), and meaningful life (life of affiliation building a *larger purpose of life*).

As mentioned earlier, Cook (2004, 2006) reviewed 265 books and papers on spirituality and addiction, employing a descriptive study design. In an attempt to clarify the understanding of the concept of spirituality in addiction research, he identified 13 conceptual components of spirituality which occurred within the literature that was reviewed. Cook (2004, p.545) produced a long list of lexical equivalents of the thirteen conceptual components of spirituality identified by him. Here I summarise them:

- *Relatedness*: interpersonal relationships that includes, but not only, intimacy, forgiveness, love, mercy and gratitude.
- *Transcendence*: recognition of a transcendent dimension to life that is beyond the self, it could be a higher power, it could be divine, or simply, God. This also comprises ultimate concern, ultimate reality.
- *Humanity*: that which makes human beings uniquely so. (Here, ‘humanity’ is used in a different sense from the way it is used in positive psychology.)
- *Core/force/soul*: the inner 'core', 'force' or 'soul' of a person, which could be referred to as the soul, spirit, life.
- *Meaning/purpose*: meaning and purpose in life

- *Authenticity/truth*: authenticity and truth
- *Values*: values, importance and worth
- *Non-materiality*: contrasting the spiritual to the material
- *(Non-) religiousness*: opposition of spirituality to, or identity with, religion
- *Wholeness*: holistic wellness, wholeness or health; this includes also integrity and fulfilment of life.
- *Self-knowledge*: self-knowledge and self-actualization, also what is sometimes expressed as ‘noetic dimension’.
- *Creativity*: creativity of the human agent
- *Consciousness*: consciousness and awareness

Similar to the above work, Vachon, Fillion and Achille (2009) reviewed 71 articles on end-of-life spirituality. Employing a content-analysis design the researchers identified 11 dimensions of spirituality. The eleven dimensions of spirituality identified by Vachon and colleagues (2009) are the following (in the order of the frequency of their appearance among the reviewed articles):

- *Meaning and purpose*: This theme expresses the aspect of having a global meaning to life and death, but also the ability to find meaning out of different life events. In many cases, spirituality could be defined as “a search for meaning and purpose in life” or as “a feeling to have found a meaning and purpose in life and death.”
- *Self-transcendence*: A sense of connecting authentically with the inner self.
- *Transcendence with a higher being*: This includes all items that relate to a belief in, faith in, or feeling of communion with a Divine or a higher being.
- *Mutuality and feeling of communion*: A feeling of communion and of mutuality that is part of the spiritual experience. This feeling of communion can be felt with the self, with nature or the environment, with God or the Universe, within interpersonal relationships and even with things.
- *Faith and beliefs*: This dimension is often related to the idea of a Divinity or a higher being, but not necessarily to God or to a Divine power. It could include a profound faith in human beings in general, or faith in a higher order system.
- *Hope*: This can take on several meanings ranging from hoping for better days especially during times of difficulty to hope in life after death.

- *Attitudes toward death*: (In the context of end-of-life) the idea of preparing for, accepting and to being more conscious of one’s death is perceived as being part of the spiritual journey.
- *Appreciation of life*: “The capacity to live in the here and now and to appreciate life’s simple moments. A positive attitude and gratitude toward life as well as

Table 2.2
Parallels between character strengths and constructs of spirituality

	Spiritual Intelligence (Emmons, 1999)	ASPIRES (Piedmont, 1999)	Spirituality in Recovery (Cook, 2004)	End-of-life Spirituality (Vachon et al., 2009)
CS01	Curiosity (novelty-seeking, interest)			
CS02	Love of learning			
CS03	Open-mindedness (critical thinking)	✓		
CS04	Creativity (originality, ingenuity)		✓	
CS05	Social intelligence (emotional and personal intelligence)			
CS06	Perspective (wisdom)	✓	✓	
CS07	Bravery (valour)			
CS08	Persistence (perseverance)			
CS09	Integrity (authenticity, honesty)		✓	✓
CS10	Kindness (generosity, care, compassion, altruistic love)	✓	✓	✓
CS11	Love		✓	
CS12	Citizenship (social responsibility, loyalty, teamwork)			
CS13	Fairness			
CS14	Leadership			
CS15	Self-regulation (self-control)			
CS16	Prudence			
CS17	Appreciation of beauty (awe, wonder, elevation)			
CS18	Gratitude	✓	✓	
CS19	Hope (optimism, future mindedness, future orientation)	✓	✓	✓
CS20	Spirituality (religiousness, faith, purpose)	✓	✓	✓
CS21	Humility (modesty)	✓	✓	
CS22	Humour (playfulness)			
CS23	Vitality (zest, enthusiasm, vigour)		✓	✓
CS24	Forgiveness & Mercy	✓	✓	

Note. ‘✓’ indicates that the character strength is implied in the reviewed theory or measure.

considering life as a gift.” This also includes the ability to appreciate beauty and to be filled with wonder.

- *Reflection upon personal values*: Some of the values here referred to are authenticity, compassion, altruism, kindness and charity.
- *Developmental nature*: This refers to the development of spirituality as a process instead of as a static state.
- *Conscious nature*: “The spiritual experience may be described as being fully present and conscious. Consciousness of one’s values, beliefs and of the transcendent dimensions of life may be what actually makes the experience spiritual.”

Taken together, firstly, there appear to be many points of convergence among the four sampled set of constructs of spirituality. Secondly, there are similarities between these converging dimensions and the character strengths of positive psychology as Table 2.2 provisionally indicates. It is clear that not all the character strengths feature under the framework of spirituality, however, there is an emerging pattern of the salient character strengths: wisdom, integrity, vitality, compassion, forgiveness, humility, gratitude, hope, and faith (also referred to as ‘spirituality’ in the VIA). In addition to their similarity to the constructs of spirituality, the VIA offers at least two added advantages: first, it offers a comprehensive model that is not limited to a single faith tradition or secular philosophy; and secondly, it offers a possibility for measurement. Therefore, it seems to be an attractive option to choose Values in Action (VIA) as the theoretical framework for the present study; this will be measured by Values in Action-Inventory of Strengths (VIA-IS).

Positive psychology is not just a theoretical endeavour; it is also building up an evidence-based set of interventions that are aimed at enhancing happiness and wellbeing. These are called, ‘positive psychology interventions’ or ‘positive interventions’ (Rashid, 2009; Seligman, Steen, Park, & Peterson, 2005). There is also a fast growing approach in therapy that is inspired by positive psychology, which goes by the title, ‘positive psychotherapy’ (Seligman, Rashid, & Parks, 2006). These interventions include Counting Blessings (Emmons & McCullough, 2003), Gratitude-Letter and/or Visit (Seligman, Steen, Park, & Peterson, 2005), Life Summary Exercise (Seligman, Rashid, & Parks, 2006), Savouring Exercise (Bryant & Veroff, 2007). Some of these exercises are delivered to the participants via the internet. Mindfulness practice is also being used as an intervention in positive psychology (Hamilton, Kitzman, &

Guyotte, 2006; Snyder & Lopez, 2007). Due to its affinity to religion and spirituality (MHF, 2010), and its use in facilitating recovery from addiction (Bien & Bien, 2002), could mindfulness be one key meeting point for positive psychology, psychology of religion and addiction recovery? The next section explores this possibility.

2.4.3. Cultivating character strengths through mindfulness

What is mindfulness? In popular understanding mindfulness is often referred to as “emptying of the mind.” An absolute emptying of the mind may not be possible straightaway, therefore, techniques such as awareness of breathing and body sensation are used as anchors to relax the body while keeping the mind attentive. In the words of a report from the UK-based Mental Health Foundation, “Mindfulness is a way of paying attention to the present moment by using meditation, yoga and breathing techniques. It involves consciously bringing awareness to our thoughts and feelings, without making judgments...” (MHF, 2010, p. 12). Shapiro (2009, p.556) defines mindfulness as “the awareness that arises through intentionally attending in an open, accepting, and discerning way to whatever is arising in the present moment.” Mindful awareness is the outcome of intentional attending (Shapiro & Carlson, 2009). The other common definition is from Jon Kabat-Zinn (1994, p.4): “Mindfulness means paying attention in a particular way: on purpose, in the present moment, and nonjudgementally.” The three adjectives in the second part of the sentence are crucial. Mindfulness is an intentional activity. It pays attention to the present; therefore, there is no sense of guilt about the past and anxiety about the future. It entails being non-judgemental, that is, the individual does not classify their thoughts and sensations as good or bad. They are just mindful or aware!

Mindfulness is increasingly being used in clinical contexts (Mars & Abbey, 2010). In the UK, for instance, the National Institute for Health and Clinical Excellence (NICE, 2004) recommended Mindfulness-Based Cognitive Therapy (MBCT) for people who had experienced depression. This was further confirmed by a research published by the Mental Health Foundation (MHF, 2010) that reported that out of the 250 General Practitioners (GP) surveyed, 72% think it would be helpful for their patients with mental health problems to learn mindfulness meditation skills. In a representative sampling of 2,007 British adults, 51% of those surveyed said they would be interested in attending free meditation classes to help them deal with stress and thus look after their health.

There are some specific approaches in psychotherapy that have integrated mindfulness based interventions. Mindfulness-Based Cognitive Therapy (MBCT) was developed by Segal, Williams and Teasdale (2002) as a therapy for relapse prevention of major depression. Kabat-Zinn's (2003) Mindfulness-Based Stress Reduction (MBSR) integrates components of Cognitive Behavioural Therapy (CBT; Beck, 1993). Meta-analyses and systematic reviews on the available data on the effectiveness of mindfulness-based interventions report very mixed findings. For instance, evidence for a beneficial effect of MBSR on depression and anxiety was equivocal (Toneatto & Nguyen, 2007). Whereas, there is other evidence that suggests that mindfulness-based intervention might have some effect on stress reduction in healthy subjects (Chiesa & Serretti, 2009). Other results show that mindfulness-based therapy is a promising intervention for treating anxiety and mood problems in clinical populations (Hofmann, Sawyer, Witt, & Oh, 2010; O'Driscoll, 2009).

Mindfulness is also being employed to facilitate recovery from addiction and to prevent relapse (see for example, Appel & Kim-Appel, 2009; Carlson & Larkin, 2009; Marlatt & Chawla, 2007). Hendershot and colleagues (2011) have pointed out that the last decade has witnessed the effective development of mindfulness based relapse prevention. This has been achieved at times with the merger of Cognitive-Behavioural Therapy (CBT) and at other times using techniques of mindfulness on their own. The ten day *Vipassana* meditation training is a good example of the latter case (Bowen et al., 2006). *Vipassana* is a Buddhist meditation technique that begins by paying attention to breathing (*anapana*) and goes on to pay attention to body sensations (*vipassana*). Another version is Mindfulness-Action Based Cognitive Behavioural Therapy (MACBT), which is said to hold promise in treating individuals with co-existing binge eating disorder and substance use disorder (Courbasson, Nishikawa, & Shapira, 2011). These are but a few samplings of the plethora of literature available, some of which will be explored in later sections of the dissertation.

In general, as Baer (2003, p.140) has suggested, although the “empirical literature supporting its efficacy is small,” there is a growing support for the claim that “mindfulness-based intervention can be rigorously operationalized, conceptualized, and empirically evaluated” in the context of health and wellbeing (see also Kabat-Zinn, 2003). Others suggest that “the combination of some well-developed conceptual models for the therapeutic action of mindfulness and a developing empirical base, justifies a degree of optimism that mindfulness-based approaches will become helpful strategies to offer in the care of patients with a wide range of mental and physical health problems” (Allen et al., 2006, p.285).

In positive psychology, mindfulness is used as a means to facilitate novelty, flow and optimal experiences, and its relation to spirituality is also duly acknowledged (Snyder & Lopez, 2007). The suitability of mindfulness as a viable intervention technique in positive psychology is supported by the possibility that the principles and practice of mindfulness are similar to most basic elements of positive psychology. Since, “mindfulness meditation promotes positive adjustment by strengthening meta-cognitive skills and by changing schemas related to emotion, health, and illness,” Hamilton and colleagues (2006, p.123) suggest that mindfulness holds the promise of being “a link between positive psychology and cognitive behavioural therapies.” Furthermore, in examining the qualities of mindfulness that have parallels with positive psychology, Shapiro and colleagues (2002, p.640) list the following: non-judging, non-striving, acceptance, patience, trust, openness, letting go, gentleness, generosity, empathy, gratitude, and loving kindness. While some of these qualities are directly related to the list of character-strengths, others can have at least an extended denotation. For instance, the description of patience and trust could be related to hope, non-judging quality to wisdom, letting-go to forgiveness, and acceptance to faith.

Though mindfulness is often used in therapy without any religious connotation, its roots in religious and spiritual traditions cannot be denied. And hence, mindfulness has become a subject of enquiry within psychology of religion (Nelson, 2009). The MHF document (2010) further states, “Mindfulness is most commonly linked with Buddhist practices, although similar ideas and techniques are found in ancient Greek philosophy, contemplative Christianity, Judaism and Islam, Gestalt and humanistic psychologies and today’s ‘slow movement’” (see also Shapiro & Carlson, 2009). More specifically, in the Christian tradition, there are methods of prayer which are comparable to techniques that are referred to as ‘mindfulness’ as described above (Molleur, 2009). The way of ‘praying’ with these Christian methods is referred to as contemplation. It is interesting to note that, often in literature, ‘mindfulness’ is also simply referred to as ‘contemplative practice’ (Holland, 2006; Nanda, 2009). On the other hand, meditation, at least as understood in the Christian tradition, would be considered different from contemplation, in that meditation involves more a prayerful reflection on a religious theme. It involves the mind; that is why it is also referred to as ‘mental prayer’. That is to say, meditation is more discursive in nature. Whereas, contemplative prayer involves the heart in its initial stages, and eventually through prolonged sitting in quietness it is expected to lead the practitioner to an experience of emptiness. One method that most resembles mindfulness is the “Jesus Prayer” or also known as, ‘Hesychasm’. As Appel and Kim-Appel (2009, p.507) have pointed out,

“Many have also compared the Eastern Orthodoxy tradition of the hesychast practice of focusing one’s attention on an individual object to a direct form of meditation or mindfulness. Philokalia (read: hesychasm) can be seen as a form of a meditation of the heart ... whose goal is to ignore the senses and achieve an inner stillness.” Chapter 4 on the Method of Study will elaborate the details of the intervention used in the present project, which are here collectively called ‘Christian mindfulness’. Appendices include more specific contents of the intervention protocol.

A caveat, perhaps, can act as the conclusion to this section. With due respect to the religious sentiments of believers who practise contemplation in the context of prayer and with a content of faith, it should be acknowledged that the use of the Jesus Prayer in psychological experiments runs the risk of reductionism. While it might well be possible that its effects are measurable in psychological terms, its inner effects in terms of grace cannot be measured, nor its dynamics adequately explained within the framework of psychology. Therefore, it may be meaningful to concede that the scientific approach of psychology may not exhaustively explain all that underpins a religious experience. Whether this study will succeed in deciphering the trajectories that are prevalent in Christian contemplative practice, or not, the components of the contemplative practice will continue to remain spiritual practices in their own right. It might just be the case that the tools of psychology are not fully adequate. On the other hand, religion or spirituality need not be overly suspicious of these studies and experiments. Insofar as all human experiences are brain-based, religious experiences are also brain-based (see Saver & Rabin, 1997). Moreover, the fruits of these experiences could be perceivable in terms of human behaviour (James, 1902), or at least the individuals would be able to describe these experiences in some way. It is these phenomenological realities that instruments of measure are attempting to pick up in the psychological study of religion, which also the present study intends to achieve.

In an attempt to establish the theoretical framework for the present project, in this chapter I have drawn a bird’s-eye view of two major areas of enquiry: psychology of religion and positive psychology. I have also suggested that mindfulness is one possible practice where these areas of enquiry could find a common platform. Moreover, it seems, at least hypothetically at this stage, that character strengths could be the set of constructs that could provide the schema for exploring the relationship between spirituality and recovery from addiction. How can this relationship be operationalized? In other words, what would be the relationship between character strengths, mindfulness, and recovery from addiction? Do character strengths play the mediating role between mindfulness intervention and recovery? The next chapter will explore these questions and propose a conceptual framework for the study.

Chapter 3

Addiction, Spirituality and Character Strengths: Evolving a Conceptual Framework

A theoretical framework is a theory or set of theories on which a study is based, the conceptual framework is the operationalization of the theory. The conceptual framework generates a set of hypotheses that attempt “to identify something that is going on” in the phenomenon under study (Maxwell, 2005, p.34). The aims of this chapter are to relate the psychology of addiction and recovery to the psychology of religion and positive psychology, and to evolve a conceptual framework. This will be achieved through three steps that form the three major sections of the chapter. To begin with, I define addiction and recovery, particularly by examining some theories and models of addiction. These theories are selected on the basis of their relevance to the possible role of character strengths in recovery. They are grouped under the criteria for addiction set out in the *Diagnostic and Statistical Manual of Mental Disorders* published by the American Psychiatry Association (DSM-IV, 1995) and the *International Classification of Diseases and Related Health Problems* by the World Health Organisation (ICD-10, 1992).

In the second section, the possible mediating role of character strengths in addiction recovery induced by spirituality-based-interventions is examined. This is done through a qualitative systematic literature review. The third section of this chapter integrates the insights from the literature review and the theories of addiction and recovery, to propose a conceptual framework that could be useful in exploring the mediating role of character strengths in addiction recovery. This chapter proposes a holistic understanding of addiction and recovery within which the conceptual framework for the present research is to be situated. The holistic framework attempts to bring together various types of predispositions for addiction, processes involved in addiction, interventions that facilitate recovery and maintain abstinence, and the dynamics of relapse. Special attention is paid to the role of religious spirituality in the different stages of addiction and recovery, particularly in enhancing character strengths. The chapter concludes with a set of hypotheses that will be tested in the empirical part of this research project.

3.1. Understanding Addiction

3.1.1. Definitions and characteristics of addiction

The word ‘addict’ came into English usage around 1520 CE with less severe sense, meaning: ‘devoted’ or ‘delivered’. Etymologically, the Latin ‘*addicere*’ could mean, ‘to deliver, award, yield, devote’ (from ‘*ad*’ meaning, ‘to’ and ‘*dicere*’ which means, ‘declare’). Warner (1994, p.687) cites a sermon delivered in Early Modern English in 1609 by one Reverend Downame, in which he distinguished habitual drunkenness as a vice, different from just drinking for delight, and pitied those “who *addict* themselves to this vice.” According to an Online Etymological Dictionary, it was in 1779 that the word was first used with reference to the use of tobacco. Then ‘addiction’ began to take on a meaning of being self-addicted, that is, to award oneself to someone or some practice. In 1909, ‘addict’ was first used in reference to morphine, and by 1939 it was generally used in the narcotics sense. Today, in common parlance, people speak of various objects of addiction: work, chocolate, plastic surgery, the mobile phone. In simple terms, ‘addiction’ is used to refer to a compulsive physiological and psychological need for a habit-forming substance, action, or situation. The present project will focus more on the psychological aspects of this need, and use the term ‘addictive object’ to include substance, action and situations that have a potential to influence the user towards an addictive behaviour. In an attempt to understand at a little more depth the subject matter of the present study, I will first list some available definitions of addiction, identify the emerging commonalities and list the characteristics of the human behaviour that is referred to, in psychology, as ‘addiction’.

Jim Orford defines addiction in terms of ‘excessive appetite’, where the adjective ‘excessive’ is understood as "apparent loss of control over a form of activity which, for most people, serves as a pleasurable and moderate indulgence" (Orford, 2001a, p.9; see also Orford, 2001b). Another popular writer, DiClemente, points out that “the term *addiction* has been used to identify self-destructive behaviours that include a pharmacological component” (DiClemente, 2003, p.3). He also adds that, in a narrow sense, the term ‘addict’ has been often used to refer to “individuals with a *physiological* dependence on one or more *illegal* drugs” (p.3). For instance, to Heather (1998) addiction is “defined by repeated failures to refrain from drug use despite prior resolutions to do so.” Robert West (2006) offers a working definition in his compendium of theories of addiction: “a syndrome in which a reward-seeking

behaviour has become out of control” (p.10). In summary, the following aspects emerge from the above definitions: repetition, excess, loss of control, dependence, reward or pleasure, and self-destructive behaviour.

More technically, the DSM-IV and ICD-10 offer criteria that shed more light on the definition of addiction. To begin with, the DSM-IV makes a distinction between substance dependence and behavioural dependence as in pathological gambling, though similarities are observed. I will return to this distinction later in the section. Table 3.1 summarises the definitions by pointing out the commonalities and comparing them with those criteria presented by DSM and ICD. It is important to note that according to the methodology of DSM and ICD, in a maladaptive pattern of substance use, three or more of the following criteria are said to occur at any time in the previous 12-month period. Also, any behaviour becomes pathological (a mental disorder) when the behaviour is associated with present distress, and impairs the functioning of the individual. Flowing from these criteria, it is misleading to speak about ‘positive addictions’ (see Glasser, 1976). Addiction, by definition, implies negative outcome in terms of human functioning; it is with this meaning that the word and its constructs are used in the present study. Therefore, it is also not proper to refer to a repetitive use of mindfulness as addiction, insofar as it contributes to human wellbeing.

The commonalities identified in Table 3.1 become the outline of the remaining part of this chapter, and a select-set of theories and models are presented within this outline (Table 3.2, Page 84). Some of these characteristics overlap with each other; additionally, some of the theories that are summarised could be relevant to more than one of the characteristics identified. Generally, theories become well accepted within a particular field based on empirical evidence that supports the theory. The strength of a theory is also supported by its ability to predict. It is not within the scope of the account that follows to provide details of the body of empirical evidence for each of the theories. Nor is it possible to review over a hundred theories that are available within the sphere of addiction research (for an exhaustive list, see Hodgson, 1987; West et al., 2001; West, 2006). The aim of this section is only to scan through the body of theories to discuss the relationship between religious spirituality and addiction in terms of character strengths. Hence, the theories and models listed here are selected on the basis of two criteria:

(a) Parsimony: theories that are economical but are, at the same time, able to explain several aspects of the process of addiction. Incidentally, some of these theories also explain a variety of psychological processes other than addiction. These theories

are general enough to provide appropriate explanation for the characteristics of addiction and thus to establish a theoretical framework within which to conduct the present study.

(b) Relevance: theories that are meaningful to the present project, and lend themselves to examining the relationship between addiction and spirituality, particularly in terms of character strengths. Hence, constantly I will attempt to discuss the character strengths that may have some association to the specific theories of addiction.

Table 3.1.
Characteristics of addiction

	DSM-IV Maladaptive pattern of substance abuse	ICD-10	Commonalities
1	Substance is taken in larger amounts or over longer period than intended	Difficulties in controlling substance-taking behaviour in terms of its onset, termination, or levels of use	Loss of self control
2	Persistent desire or unsuccessful efforts to cut down or control substance use	Strong desire or sense of compulsion	Persistent desire ('craving')
3	A great deal of time spent towards obtaining and using the substance, or recover from its effects	Progressive neglect of alternative pleasures or interests, increase amount of time necessary to obtain or	Investment of time and effort
4	Important social, occupational or recreational activities given up or reduced	take the substance or to recover from its effect	Neglect of social and occupational engagements
5	Continued use despite persistent or recurrent psychological or physical problems	Persisting with use despite clear evidence of overtly harmful consequences	Awareness of Negative Impact
6	Tolerance: diminished effect with continued use of the same amount; or need for greater amounts to reach desired effect	Increased dose is required in order to achieve effects originally produced by lower doses	Tolerance
7	Withdrawal: manifested by withdrawal syndrome	Physiological withdrawal state when substance use has ceased or been reduced, or the same substance is used to relieve of the withdrawal symptoms	Withdrawal syndrome

Loss of self control

Loss of self control could be understood in two ways: one, while being in the addictive condition as an inability to control oneself from an excessive indulgence in the situation (Orford, 2001a), and two, while being in a sober state an inability to refrain from a future use of the substance, a phenomenon that Heather (1988) referred to as, “repeated failure to refrain.” One of the insights of Alcoholics Anonymous (AA) is that for someone building an addictive behaviour, initially self control may become difficult only in that particular addictive context, in due course, however, this powerlessness could extend to life in general. Therefore, the first step in the 12 Steps of AA is to acknowledge that “We were powerless over alcohol – that our lives had become unmanageable” (AA, 1953/2007, p.59).

The disease model of alcoholism proposed by Elvin Morton Jellinek (1960) is well known among scholars of addiction, and it could shed some light on the loss of self-control, particularly from a physiological perspective. Jellinek’s focus was on alcoholism, which he defined as “any use of alcoholic beverages that causes any damage to the individual or society or both” (Jellinek, 1960, p.35). He saw alcoholism as a disease of the brain that develops through different phases: pre-alcoholic phase, prodromal phase, crucial phase and chronic phase. He also distinguished five levels of alcoholism identified with the first five letters of the Greek alphabet (Alpha to Epsilon). This is listed later in this chapter. What is important here is to point out the implications of the disease model. On the one hand, this model reduces the personal responsibility of the alcoholic, and on the other hand, it emphasises the possibility of dealing with alcoholism with a medical intervention. The disease model raises more questions than the answers it offers. As Khantzian (1980) argues, the medical model contributes to de-stigmatising alcoholism and provides a detailed classification of the types and processes in alcoholism. However, it tends to reduce the problem of alcoholism to the physiological realm and to downplay the possible contribution from behavioural scientists. The concept of disease needs to be extended to include psychopathology and comorbidity: that people who are prone to addictive behaviour might be previously disposed to it by virtue of other psychopathological conditions, such as personality disorders (Mehroof & Griffiths, 2010; Tyndel, 1974). This is further explored on page 113 in this work in the section on predispositions to addictive behaviour.

From a psychological perspective, it is important to recognise an underlying vicious cycle involved in self-control and addiction: the initial loss of self-control might introduce a person to an excessive use of the addictive object, and the prolonged misuse

of the object contributes to a morbid loss of self-control. Some insights from positive psychology could throw light on this. One of the character strengths in the VIA is self-regulation or self-control (CS15). It is listed under the virtue of temperance. From the contributions of Baumeister and colleagues it is possible to understand the vicious cycle of self-regulation failure and addiction (see Baumeister, 2012; Baumeister & Heatherton, 1996; Muraven & Baumeister, 2000). There are two basic concepts that could be useful here. First, Baumeister compares self-control to the working of a muscle – the more a muscle is exercised the more it is capable of working in the future (Baumeister, 2012; Muraven & Baumeister, 2000). Secondly, self-regulation in terms of improved agency in one area of daily life could influence monitored control in another area (Baumeister, 2012). The overlap of self-regulation, or the loss of it, over an addictive object and other aspects of life is well recognised in the Alcoholics Anonymous literature as pointed out above. One way of improving self-regulation, Baumeister suggests, is to monitor the impulse to act on something in order to put off the action towards delayed gratification. He adds, “Self-regulation is a controlled process that overrides the usual consequences of an impulse rather than preventing the impulse from occurring” (Baumeister, 1996, p.2). A way of achieving delayed response to an impulse could be through mindfulness exercises that activate the prefrontal cortex of the brain (Siegel, 2007; see also Newberg et al., 2010). These insights are of interest to the present study, and will be further examined.

Pathological Desire ('Craving')

A clarification offered by the World Health Organisation (WHO) in 1954, could serve as a good starting point in our understanding of what is referred to as ‘a desire’ in addiction. Proposing to avoid the use of the term ‘craving’, WHO drew a distinction between physical ‘craving’ that can be related to ‘physical dependence’ or ‘withdrawal symptoms,’ and psychological or a symbolic ‘craving’ that is better referred to as ‘pathological desire’ or ‘irresistible impulse’ (see Kozlowski & Wilkinson, 1987). Despite the differences in opinion regarding this distinction in terminology (see Shiffman et al., 1987), it seems difficult to speak of the psychological aspects of desire without due reference to its neurobiological dimension. What is pathological about the desire in addiction? What starts off as a pleasurable activity, in addiction, becomes a ‘necessity’ (Orford, 1999b). This desire becomes explicitly pathological when the person with addiction wants to be free from the addictive situation but is unsuccessful.

The best account of the stages that underpin this process is offered by Jim Orford (1985/2001a).

Addiction as Excessive Appetite: Based on the theories of emotional reward systems associated with appetites, Orford (1985/2001a) sees addiction as an outcome of excessive appetite. His conceptualization of addiction is based on the view that there are indeed a range of objects and activities that are potentially risky for humans though initially they might offer some pleasant experience. Individuals might have recourse to these objects and develop such strong attachment to them that their ability to moderate their behaviour in relation to the object is significantly reduced (see Orford, 2001, p.15). There are several criteria that can be used to assess a particular behaviour as excessive. Generally, addiction is a skewed consumption that falls outside the normal consumption-distribution of the population, and this excessive appetite “spoils many lives” (p.28). Furthermore, the dynamics of excessive appetite can be consistently explained within other human cognitive and emotive systems in terms of learning, motivation and ‘cognitive schemata’. This theory of excessive appetite is highly parsimonious. It could provide the theoretical framework for the explanation of almost any form of addiction ranging from marijuana to ‘joyriding’. It also integrates other addiction theories like tension-reduction theory (Cappell & Herman, 1972), multiple regulation model (Leventhal & Cleary, 1980), Abstinence Violation Effect - AVE (Marlatt, 1978), Transtheoretical Model (Prochaska, DiClemente, & Norcross, 1992), just to cite a few.

From the perspective of character strengths it would be interesting to explore the facilitating role of curiosity (CS1) and the protective role of prudence (CS16) and self-regulation (CS15) in craving. Curiosity, which also includes novelty seeking, is an “intrinsic desire for experience” (Peterson & Seligman, 2004, p.125). Some studies have suggested novelty seeking as a risk factor in addiction (Etter, 2010; Redolat, Perez-Martinez, Carrasco, & Mesa, 2009). This also makes adolescents a vulnerable group for addiction since usually they score high on novelty seeking (Kelley, Schochet, & Landry, 2004). On the other hand, prudence – which presupposes due consideration of consequences before acting, and avoiding risky behaviours – could play a moderating role in the exercise of excessive appetite.

Increasing Investment of time and effort

An addictive behaviour takes its toll on the individual, not only in physical terms but also in the economic and social spheres. It demands their investment of resources,

including time, and this might contribute to the neglect of other personal and social responsibility. But why would someone continue to engage in a potentially harmful behaviour that also demands a heavy investment of time and resources? Self medication hypothesis might offer some insight.

Self Medication Hypothesis (SMH): This is generally associated with Edward J. Khantzian and colleagues (1974). Khantzian initially proposed this hypothesis working from a psychodynamic framework and personality, but later he revised it in terms of psychiatry. Khantzian suggested that addicts are mentally ill people and they are trying to medicate themselves with drugs or alcohol in an attempt to deal with their distressful subjective states. Hence, the SMH is related to the disease model of addiction discussed earlier. Khantzian (1980) observed that individuals with impulsivity tend to create problems of health, difficulties in familial relationships, and in work places. These situations create anxious affective states. To relieve themselves of such states they use drugs or alcohol. Similar behaviour could be seen in people with “affect deficit” and alexithymia. Alexithymia is a condition of inability to describe one’s feelings to another, or the experience of feelings that are ambiguous. Initially they find their choice of drug does relieve them from distress caused by anxiety or alexithymia. However, in due course there could be a vicious cycle here: the stress that occurs as a result of the use of an addictive object that involves high costs in terms of finance and relationships may act as the motivating factor in the continued entanglement with addiction. In this case, addiction becomes a dysfunctional mode of coping with the negative effects of addiction itself.

Khantzian (1999) clarifies that it is not necessarily the psychopathological condition itself that prompts the use of addictive substance but the affective condition that is provoked by the pathological condition. This model makes sense particularly in the motivation behind the use of psychotropic drugs, even in the treatment of alcoholism. It can also imply a need to make a distinction between drug use and drug abuse. David Duncan is acclaimed as another important contributor to this model of addiction. According to Duncan and Gold (1983), therapists need to treat drug abuse rather than its use. “This does not mean encouraging drug taking, but does mean encouraging those who take drugs to do so in ways that minimize the probability of hazards or of addiction” (p.143).

This model is very controversial. It does not explain the possibility of getting hooked to addiction by accident or out of the initial adventure of just trying out with no underlying pathology (West, 2006). Moreover, some empirical studies have questioned

the self-medication hypothesis. For instance, the findings of Hall and Queener (2007) did not offer support for this hypothesis. Suh and colleagues (2008) attempted to test the SMH using the 6 scales from The Minnesota Multiphasic Personality Inventory- 2 (MMPI-2) with 402 non-drug users and drug users to capture the psychological elements relevant to this model. The results were very mixed. On the other hand, the use of some specific drugs was traceable to certain psychological states like depression, or Post-Traumatic Stress Disorder (PTSD). Therefore, though there is a relationship between addiction and the ability to manage emotional states, the findings of this research were only partially consistent with the SMH. The SMH does not take into consideration environmental factors that may be in play in addictive behaviour, for example, the price of the substance and its accessibility could influence its use in a particular location. In general, it is also possible that individuals use addictive substance not just to avoid negative affect (or pain) but also to attain positive affect (pleasure). This dual purpose could also be possible in the choice of the same individual at different times.

From the perspective of positive psychology and character strengths, hope or future-orientation (CS19) seems relevant to the regulation of increasing investment of time and resources. It could be presupposed that people who have a sense of purpose about the future might also have plans for the responsible use of their resources. This is yet another conceptually unexplored area of research, though some therapeutic interventions have focused on future-orientation and goal-setting in successful drug rehabilitation (Carten, 1996; Miller, 1991). In any case, increasing investment of time and resources in the present becomes a problem when it would lead to the neglect of social and occupational engagements. And this is discussed here below.

Neglect of social and occupational engagements

The increasing investment of time and effort in the pursuit of an addictive situation could contribute to the neglect of responsibilities and reduced social engagements. Problem Behaviour Theory could explain the social implications of addiction.

Addiction according to Problem Behaviour Theory: Problem Behaviour Theory is a parsimonious psycho-social framework that attempts to explain deviant behaviour especially among young people (Jessor, & Jessor, 1977). From its very beginnings, this theory has been meaningfully applied to the study of addiction, particularly to alcohol abuse (Jessor, 1987). The theory comprises three conceptual systems of psychosocial

influence – Personality System, the Perceived Environment System, and the Behaviour System. Each of these systems is made up of variables that are said to instigate a problem behaviour or control against it, and together, they generate a dynamic state of proneness to the transgression of normative behaviour. The Personality System is a set of social-psychological variables that include motivational-instigation structure, personal belief structure and personal control structure. Religiosity, for instance, is one of the variables featuring in the personal control structure. The Perceived Environment System consists of a distal structure (that is, indirect support and control extended by parents and peers), and a proximal structure (approval of problem behaviour from parents and peers). The behaviour system consists of concepts that have “an emphasis on socially learned purpose, function, significance, and meaning (Jessor, & Jessor, 1977, p.18; see Jessor, 1987 for a diagrammatic representation).

Several character strengths could be associated with the prevention of the neglect of social and occupational engagements among people with addictive behaviour: social intelligence or emotional intelligence (CS5), integrity (CS9), and citizenship, which includes social responsibility and loyalty (CS12). A systematic review of 36 studies that examined the relationship between emotional intelligence and addictive disorder indicates that lower level of emotional intelligence is associated with more intensive smoking, alcohol use, and illicit drug use (Kun & Demetrovics, 2010). Another study suggests that people with addictive behaviour may be impaired in their description of norms governing social contracts (Kornreich et al., 2011). Similarly, the U.S.-based Betty Ford Institute that provides treatment services for alcoholism and other drug dependencies defines recovery from substance dependence as “a voluntarily maintained lifestyle comprised of sobriety, personal health and citizenship” (BFI, 2009, p.493). The institute understands citizenship as performing duties in line with the expectations of the state, and “participating in the rights and responsibilities of social life” (p.495). The theoretical framework of positive psychology could be helpful in exploring these issues further. The Problem Behaviour Theory also considers the role of purpose, significance, and meaning, in developing addictive behaviour. These are related to the character strength of hope or future-orientation (CS19). And this is discussed here below.

Continuation despite negative consequences

Together with the physiological and psychological negative impact that the addictive behaviour has on the individual, there is also an increased tendency towards

taking risks in the fulfilment of the persistent desire. These risks could include also legal issues. One of the criteria laid down by *International Classification of Diseases* (ICD-10) for the definition of addiction is the persistent use of a substance despite clear evidence of harmful consequences. This criterion can be further understood, I think, by examining some theories of addiction that Robert West (2006) groups as Choice theories. The choice can be either rational and informed, or irrational and ill-informed. Salient among these is the Theory of Rational Addiction (Becker & Murphy, 1988). There are also other theories that imply choice, but some of them have been already expounded under different characteristics of addiction: the Self-medication Model of addiction, Expectancy Theories, Choice Theory (Skog), Affect Heuristic (Slovic), Cognitive Bias Theories.

The Theory of Rational Addiction: This theory is not just an economic model for illustrating addiction but it is indeed a theory in economics. This is clear from the nature of the journals that have published the contributions of the proponents of this theory, Becker and Murphy (1988; see also Becker, Grossman, & Murphy, 1991; 1994). In fact, Gary Becker was awarded the Nobel Prize for economics in 1992 for his application of economic theories to explain human behaviours such as racial discrimination, crime, family functions, addiction, and altruism.

The basic concept in this theory is 'utility'. Utility in economics is the measure of relative satisfaction in, or the desirability of, the consumption of goods and services. The experience of utility is generally relative, because the same quantity of a good can have varying effect on different individuals. For instance, a gift of £20 to a part time worker who normally earns about £30 per day will exhibit greater utility than the same gift offered to a celebrity who might earn £1000 per hour. People's desire for something depends on how they perceive its utility. Similarly, addiction to something (a good) depends on how an individual perceives the utility achieved by the use of that good, which is evaluated in terms of different variables: benefits versus harmful effects, and past versus future effects. Individuals who are future-oriented would tend to be susceptible to beneficial habits, and those who are susceptible to harmful addictions generally disregard future consequences of their action. Thus, individual differences in addiction to the same good are explained within this theory.

According to this theory, a person could be potentially addictive to something, if an increase in the current consumption of that object would lead to an increase in the future consumption of that object. Reinforcement and tolerance are two major components in the understanding of addiction even within this theoretical framework.

Reinforcement implies that the increase in the current consumption leads to an increase in future consumption. Tolerance means that current consumption cannot be lower than past consumption (see Becker & Murphy, 1988, pp.681-682). In what they call ‘normal’ addiction, a steady state is maintained between current consumption and future consumption, that is, rapid increase may be seen only for a while. But in ‘pathological’ addiction there is an unstable steady state, that is, the increase in the consumption of a good continues to increase over time although the individual fully anticipates the future and the individual’s preferred utility decreases with increasing desire. For example, one who is pathologically addicted to smoking currently sees increased benefit in smoking despite the decreasing utility due to cost and health risks. Therefore, the theorists predict that, if a smoker knows that the price of cigarettes would go up in two years the smoker would consider decreasing their consumption now (Becker, Grossman, & Murphy, 1991).

The characteristic of continuing to use the addictive object despite negative consequences, and the theory of rational addiction presuppose a lack in future-orientation (CS19). Becker and Murphy (1988) state, “drug addicts and alcoholics tend to be present-oriented, while religious individuals and joggers tend to be future-oriented” (p.685). What is meant here is that religious individuals and joggers are willing to undergo discomfort in the present so as to benefit gratification in the future. On the contrary, people who expect increase in utility merely based on their experience of the present would tend to increase the dosage of the addictive object to maintain the same level of utility now. This approach would build tolerance, and eventually addiction. This concept provides some support for the conceptual framework of the present study that will be elaborated later (see Figure 3.7). For now, we explore the meaning of tolerance.

Tolerance

Tolerance in a dependent state is the need to increase the dose of the addictive object in order to achieve the same levels of euphoria that was previously achieved by lower doses. Here two major theories that explain tolerance are considered. One of the theories is more a psychological explanation, and the other physiological.

Gateway Theory: According to this theory, the use of ‘legal drugs’ like cigarettes and beer act as the entry stage, which in turn leads to the use of softer drugs like marijuana, which would act as a “gateway” to the use of hard drugs like heroin and cocaine. How this process works can be explained in terms of different possibilities

(West, 2006). The ‘gateway’ drug could simply act as an introduction to the taste of reward that a more powerful drug could provide. The process of graduation may also be due to increasing tolerance for the effects of the drug. In all this the pressure from the social group of the user cannot be ruled out. This theory, proposed in the 1970’s by Goode (1970) and Kandel (1975), has generated much research but also much debate (Golub & Johnson, 1998). It is interesting to note that already in the 1950’s debates about drug control policies, especially in the US, had been influenced by debates about marijuana users graduating to be heroin users or even criminals. A comprehensive assessment of the Gateway Theory has been provided by the so-called Rand Report (Morral, McCaffrey, & Paddock, 2002). According to this report, the relationship between the use of marijuana and other harder drugs cannot be ruled out, but there is no causal relationship. The ‘graduation’ may be influenced by the availability of harder drugs in a given geographical location, while it is also true that many who use cocaine and heroin have not first been initiated to marijuana.

Opponent Process Theory: This theoretical model could be used to explain several aspects of addiction, including withdrawal symptoms and tolerance. It was proposed by Leo Hurvich and Dorothea Jameson (1957) as a neurological model initially to explain colour vision and later extended to a wide range of emotional states and behaviour (Hurvich & Jameson, 1974). In the visual situation when the direct stimulus ceases there is a neural opponent process that creates an after-image. Similarly, the sudden termination of the pleasant stimulus is said to produce a more intense opponent affect, just as a sudden termination of a red input would give rise to an intense green afterimage.

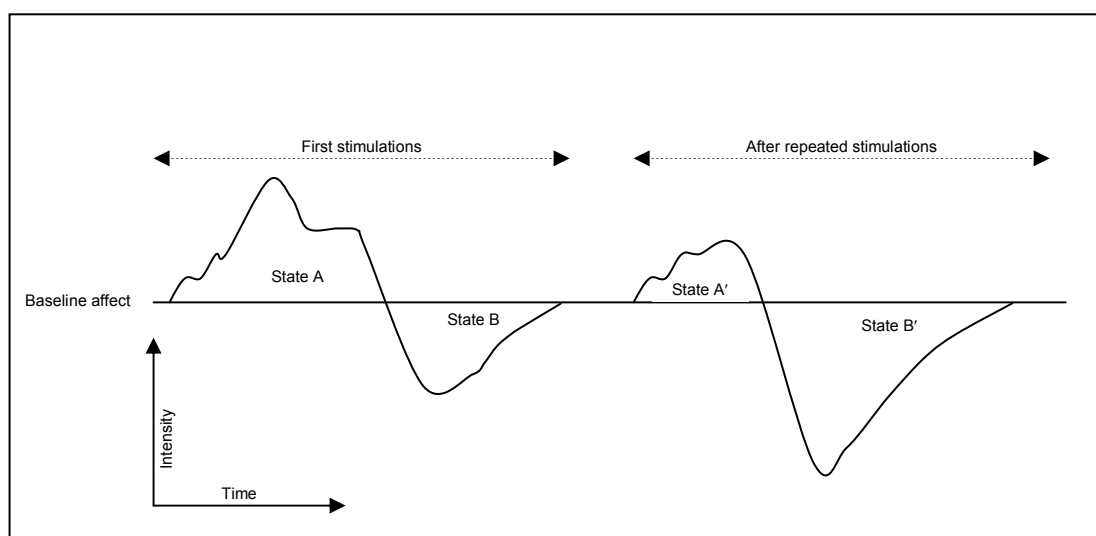


Figure 3.1. Illustration of Opponent Process
(Adapted from Solomon and Corbit, 1973)

This model can be used to explain addictive behaviour (Solomon & Corbit, 1973) with the help of a simplified illustration (Fig.3.1). When someone is first exposed to, say, a drug, there is a state of elation (State A). This State A is marked by a peak, and a steady state level. When the exposure to the drug is ceased, even as it continues its reaction in the body, State A is followed by State B, which is marked by a dip in the affective level. This is craving. The movement from the low level to the baseline level is sluggish and seems prolonged. With repeated exposure to the drug, initially there is an elation (State A') but it is not as high as State A, as seen in first exposures. This is a sign of development of tolerance to the drug. However, the dip that follows (State B') is deeper and its recovery to baseline more gradual. This is withdrawal. However, the dynamics of the State B' can be weakened by the disuse of the addictive substance, while its continued use will strengthen it. More often that State A' is elicited, the more the opponent process is strengthened. Thus addiction is ingrained. Interestingly, according to opponent-process theory, there are also some hedonistic states that do not elicit a State B after termination of stimulus even if the stimulus did produce a mild State A. This is reported in the use of marijuana (Solomon & Corbit, 1974), whereby the tolerance level and withdrawal symptoms are not severe. Because of the variation noticed in State B' in repeated exposures to the addictive substance, a simple model of homeostasis cannot be sufficient to explain the process that is pointed out by the opponent process model (cf. Peper, 2009). State B' is not a simple invariable feedback response. Therefore some researchers have sought to use another model that could explain the process of sustaining stability in organisms, namely, allostasis. Sterling and Eyer (1988) explained allostasis as a process of remaining stable by being variable.

This was applied to addiction research by Koob and Le Moal (2001/2005). Addiction is understood here as a process of dysregulation of the brain reward system that increases to the point where there is a loss of control over the addictive substance. In this allostatic process the reward function is stabilised by the changes in the brain reward mechanism itself. Tolerance to an addictive substance is an attempt by the organism not merely to restore the normal reward system (i.e., homeostasis) but to adapt itself to the interference that has been caused in the reward system. In simple words, the addictive substance upsets the normal reward system drastically that it needs a variable reaction to establish stability. The resulting chronic deviation of reward explains the neurobiological basis for vulnerability to addiction and relapse.

While the opponent process theory may not be directly related to character strengths, it is a useful theory in understanding the role of enjoyment based on pleasure in addiction and the role of gratification in wellbeing. This will be explored in the conceptual framework (Figure 3.7). On the other hand, the character strength of curiosity (CS1) could act as an entry point to lighter addictive objects before graduating into harder ones, as it is espoused by the gateway theory of addiction. In any case, there seems to be an indication that some character strengths like curiosity could facilitate rather than cushion the possibility of addiction.

Withdrawal Symptoms

One of the characteristics of addiction is that when there is the cessation of consumption of the addictive object the organism experiences distress. This distress can be a set of physical or mental unpleasant reactions. It can range from headaches to dysphoria, depending on the type of the addictive object. Physiologically withdrawal flows from tolerance as illustrated by the aforementioned Opponent Process Theory, but in a more psychological sense – without ruling out the physiological symptoms – withdrawal is related to craving and relapse (Drummond, 2001): withdrawal makes craving acute, and craving could lead to relapse. The physiological conditions accompanying withdrawal symptoms can be explained within the framework of Pavlov's Classical Conditioning.

More than one of Pavlov's theories can contribute to the understanding addiction and withdrawal. Let us begin with the concept of "orienting response" (Pavlov, 1927): it is the instinctual auditory or visual response to a stimulus that is sudden and novel. This evolutionary heritage is accompanied by biological symptoms such as slowing of the heart and constricting of blood flow to major muscle groups. This somatic quietness, which generally lasts but a few seconds enables the brain to focus on the new environment so as to gather information more effectively. The concept of the orienting response has been used to explain addiction to television or film. The cuts, edits, zooms, pans, sudden noises of the TV can contribute to a slowing down of metabolic activities during viewing, which could be similar to relaxing, but when the screen goes blank after prolonged viewing there is a negative affect and lowered alertness (Kubey, et al., 2004).

In extending the theory of classical conditioning to addiction, Pavlov (1927) noticed that dogs that were repeatedly administered morphine by the same experimenter began to exhibit morphine effects at the appearance of the experimenter. In de-

addiction sessions people who had been weaned from drugs, exhibited signs of opiate withdrawal while talking about their former episodes of drug ingestion: like rubbing of eyes and yawning. This was further supported by experiments carried out by Wikler and Pescor (1967) among rats, alluding to the fact that withdrawal symptoms are conditioned. This conditioned withdrawal is also reported among monkeys (Goldberg & Schuster, 1970). Studies carried out by O'Brien and colleagues (1988) among human participants led them to conclude that the conditioning withdrawal requires that initially the subject be dependent (unconditioned response) on opiate (unconditioned stimulus) “so that withdrawal symptoms can occur and can be paired with environmental stimuli (conditioned stimulus). At a later time, when the individual is no longer dependent, the environmental cues (conditioned stimulus) alone would be enough to elicit the symptoms of withdrawal (conditioned response)” (p.47).

In summary, as West (2006, p.100) suggests, “there can be no doubt that classical conditioning plays a critical role in the experience of drug addiction and the dependence syndromes surrounding it... but it is not yet clear whether the same mechanism can be used to help addicts to recover.” In any case, this understanding justifies the use of psychological support for dealing with withdrawal symptoms, largely reducing the craving, and thus preventing relapse. It is in this context that the use of mindfulness techniques prove meaningful especially in the maintenance stage of recovery to avoid relapse.

In conclusion to the section on addiction theories, Table 3.2 lists the theories and models that have been expounded in this section and their relative correspondence to the characteristics of addiction.

Table 3.2.

Correspondence between theories and characteristics of addiction		
	Commonalities of addiction	Relevant theories or models
1	Loss of self control	• Disease model of addiction
2	Pathological desire (‘craving’)	• Addiction as Excessive Appetite
3	Investment of time and effort	• Self medication Hypothesis
4	Neglect of social engagements	• Problem Behaviour Theory
5	Awareness of Negative Impact	• The Theory of Rational Addiction
6	Tolerance	• Gateway Theory
		• Opponent Process Theory
7	Withdrawal syndrome	• Pavlovian Classical Conditioning

3.1.2. Understanding recovery and relapse

One of the more popular models that is being used in understanding recovery from addiction is the Transtheoretical Model (TTM; DiClemente, 2003; Prochaska & DiClemente, 1982; Prochaska, DiClemente, & Norcross, 1992), which is also known as the Stages of Change Model. It is so called because the model creates an integrative framework by bringing together fragmented approaches to treating problem behaviours. It explores the stages, processes, markers and contexts of change. I will focus here on stages of change. In general, this model attempts to elucidate how people intentionally change their behaviour with or without the aid of psychotherapy. The focus here is on intentional change, particularly in the context of addiction, rather than the change imposed by the society or lifespan development. The model delineates five stages that mark the process of movement that individuals go through in overcoming addictive behaviour or any chronic behaviour pattern including getting into addiction.

Pre-contemplation: In this stage no change is contemplated. Individuals may not even be interested in changing their behaviour in the nearest future. They may be aware of the effects of their behaviour, but do not yet see the depth of the problem due to rationalisation of their behaviour. The present pattern of behaviour might just seem functional to them. The necessary task at this stage is to create increased awareness of the impending dangers of the pattern of behaviour and the need to change. They need to build hope of change with small achievable targets.

Contemplation: Individuals at this stage have the desire to change in the near future, say, within the next six months. They begin to evaluate the risk and reward involved in the change. Though change is not always lead by reason, the motivation to change needs a rationale. The stage of contemplation is about finding the compelling reasons. The considered response leads them to make a decision to change.

Preparation: This stage entails developing a plan of action and making a commitment to the plan. This might need much courage, time and energy on the part of the individuals. The envisaged future in terms of time-frame to begin acting on the plan would be less than a month.

Action: The implementation of the action-plan marks this stage of change. This is identifiable by some visible change of behaviour; change is no more a mere intention. The individuals at this stage begin to enjoy the benefits of the change that they have already implemented. Since old patterns of behaviour still offer attraction, they are constantly focussed on an additional step in the new pattern of behaviour. The Action

stage might last longer when quitting a less frequent pattern of behaviour like binge drinking, than high frequency behaviour like cigarette smoking.

Maintenance: This stage comes into effect when the Action stage has lasted for several months, or even years. In due course, the habitual new behaviour becomes integrated into the lifestyle of the individual. The new behaviour now requires little thought or effort. However, the temptation to revert to the old pattern of behaviour could always be there. But the cycle of change is complete, and could be terminated only when no trigger would cause the individual to revert to the old behaviour.

Several multidimensional questionnaires have been developed to assess the stage in which an individual is in this cycle (for a review see Sutton, 2001). The proponents of the model have been optimistic about its usefulness to tailoring interventions to facilitate change according to the stage an individual is at, at a given time (Prochaska & DiClemente, 1982; Prochaska & Velicer, 1997). However, the model has been critically evaluated by different scholars from various perspectives. Some authors have raised questions regarding the nature of the ‘stages’: are they distinct states, or separate categories and real stages (for instance, Bandura, 1997). According to DiClemente (2003) these stages are not to be taken to be irreversible linear sequential states that are completely isolated from one another. They are in fact “recursive in nature” (p.31).

Sutton (2001) and West (2005) are more persuasive in their criticism of the model. Sutton points out the lack of reliability between measures that were developed based on the same model. Intervention-based experiments also have not yielded much support for the model (Sutton, 2001). West (2005) calls for a moratorium on the TTM for several reasons. Besides the flaws in the model like low predictability, he points out that often individuals may not go through protracted contemplation about a plan for change of behaviour. This is also indicated in the inconsistencies in the way people answer questionnaires testing the model. He has suggested that more attention be given to reward and punishment in human motivation, rather than conscious decision making involved in breaking habits. He proposes a new model called, ‘State of Change Model’. Reacting to the call of West (2005), Herzog (2005) has extended support to the alternative model, and Hodgins (2005) has proposed a more critical use of the model in an attempt to refine TTM further. Taken together, it seems that this model is a useful metaphor but may need critical assessment in its empirical use. Within the framework of the present study, it could be hypothesised that mindfulness interventions could facilitate contemplation – as understood within stages of change model – and thus

motivate individuals towards change. What interests the study, though, is the role of character strengths in all the stages of change.

Relapse is common in the stages of Action and Maintenance. Social Learning Theory (SLT) and Cognitive Social Learning Theory (CSLT) could be useful in understanding relapse. The origins of SLT in its present form can be attributed to Rotter (1954) who suggested that a specific behaviour is learned through repetition based on how the effect of that behaviour influences one's motivation. It is similar to the theory of operant conditioning but differs from it in its emphasis on social environment and stimulus rather than just on cognitive process. Rotter saw behaviour as an outcome of the interplay between subjective expectancies and stimuli from the environment. Bandura (1977) expanded the work of Rotter (1954) by integrating it with contributions from other psychologists, particularly Vygotsky (1978), to present a comprehensive theory of human behaviour. According to him, the learning process involved in human behaviour is influenced by stimuli from the social environment that facilitates imitation and modelling, and by cognitive processes like attention, memory, and motivation. Based on this, Marlatt and Gordon (1985) developed the CSLT to explain relapse in addiction. Marlatt and Gordon make a very useful distinction between an initial *lapse* (for instance, a former smoker having one smoke in a particular situation without drastically affecting their abstinence) and a *relapse* (resuming regular smoking). Marlatt and Gordon (1985) have argued that in the process of a lapse turning out to be a relapse there is the influence of how an individual makes attribution to the initial drug use. If the attribution is to factors that are uncontrollable and unchangeable – often cues in the environment – then the relapse is likely to be stronger. And when the person in abstinence is actually exposed to the cues then there is a risk of relapse. Moreover, if the addiction is related to multiple cues then the risk escalates even further. Therefore, the way to stay in abstinence is to build personal 'resources' in terms of motivation and increased self-efficacy levels. A high level of self-efficacy provides the cushion against the influence of cues from the environment. In terms of character strengths, it could be conceptually suggested that responsibility (CS12) might be associated with self-efficacy. This relationship is alluded to also in positive psychology literature (Maddux, 2002).

3.1.3. Varieties of addictive behaviour

Having summarised some of the salient theories and models in an attempt to understand the characteristics of addiction, it is necessary to conclude the section with a clarification on different types of addiction. I will also briefly describe the three kinds of addictive behaviours that will be examined in the empirical part of this project: alcohol dependency, sex addiction and compulsive use of the internet.

There is an increasing understanding and acceptance among psychiatrists on the variety of addictive behaviour. On one end of the spectrum would lie purely behavioural based addictions with no substance ingestion, and on the other end, substance-induced addictions. In the above considerations of addiction theories, it has also emerged that addiction inducing substances themselves have varying valence in ingraining an addictive behaviour. For instance, heroin could have stronger impact than marijuana. The range of addictions that are not induced by substance could be referred to as 'Behavioural Addiction' (Grant, Potenza, Weinstein, & Gorelick, 2010; Potenza, 2006). They can be defined as those behaviours, which, "besides psychoactive substance ingestion, produce short-term reward that may engender persistent behaviour despite knowledge of adverse consequences, i.e., diminished control over the behaviour" (Grant et al., 2010, p.233). Potenza (2006) points out similarities between substance addiction and pathological gambling, and Grant and colleagues (2010) conclude: "Current data suggest that this combined category may be appropriate for pathological gambling and a few other better studied behavioural addictions, e.g., Internet addiction" (p.233).

The fifth edition of Diagnostic and Statistical Manual of Mental Disorders (DSM-5) which is due for publication in May 2013, has taken into account these evidence-based suggestions. Diagnoses that were listed in DSM-IV under the chapter of "Substance-Related Disorders" have now been extended to include Pathological Gambling, and the title of the chapter has been renamed to read "Substance Use and Addictive Disorders" (American Psychiatrist Association, 2012). Similarly, "Hypersexual Disorder" has also received an entry into the DSM-5, probably in the Appendix.

In the empirical part of the present study, three types of addictions are taken into consideration; I will collectively refer to them as 'addictive behaviours'. These are alcoholism, sex addiction and internet addiction. These have been included as dependent variables so as to assess the impact of mindfulness enhanced character

strengths on the spectrum of addictive behaviour. In what follows, I briefly discuss these three types of addictive behaviours.

‘Alcoholism’ is a much used term with various connotations and denotations. Generally, it is taken to refer to chronic continual drinking or periodic consumption of alcohol which is characterized by the elements listed in the criteria for addiction: loss of control over drinking, preoccupation with alcohol, and the use of alcohol despite adverse consequences (World Health Organisation, 2012). Technically, this type of uncontrolled drive to consume alcohol when accompanied by tolerance and withdrawal would be ‘alcohol dependence’. On the other hand, repeated use of alcohol with some adverse consequences would be ‘alcohol abuse’. ‘Alcohol misuse’ is different from ‘alcohol abuse’ in that the misuse is taken to be unintentional. There are also a few other terms with some nuances (as defined by World Health Organisation, 2012): ‘harmful drinking’ presupposes the use of alcohol that causes damage to health; and ‘hazardous use’ would include potential harm to self and others. ‘Binge drinking’ is a pattern of heavy drinking for particular periods of time followed by periods of abstinence. In this study, generally I use the expression, ‘harmful use of alcohol’. The measurement criteria are discussed in the next chapter. The most cited list of terms and distinctions come from Jellinek (1960). This classification does not have any internal hierarchical criteria, as it goes from the *alpha* to *epsilon*:

- *alpha* alcoholism – characterized by psychological dependence, with no progression to physiological dependence; also called problem drinking or escape drinking;
- *beta* alcoholism – characterized by physical complications involving one or more organ systems, with a general undermining of health and shortened life span (harmful drinking);
- *gamma* alcoholism – characterized by increasing tolerance, loss of control, and precipitation of a withdrawal syndrome on cessation of alcohol intake;
- *delta* alcoholism – characterized by increasing tolerance, withdrawal symptoms, and inability to abstain, but not loss of control of the amount of intake on any occasion; and,
- *epsilon* alcoholism – paroxysmal or periodic drinking, binge drinking; sometimes referred to as dipsomania or binge drinking.

Sexual addiction is a sexual behaviour that produces pleasure as well as discomfort and is characterized by “recurrent failure to control the behaviour... and continuation of the behaviour despite significant negative consequences” (Goodman,

1990, p. 1404). Patrick Carnes (1983) has carried out very elaborate studies on patterns in sexual addiction and recovery. He has also developed the Sexual Addiction Screening Test (SAST) to assess sexually compulsive or addictive behaviour (Carnes, 1989). Sexual addiction has created increased academic interest particularly in the light of the rise in cyber-pornography. As said earlier, there is also a new chapter in DSM-5 entitled, “Hypersexual Disorder” which includes five criteria for diagnosis (American Psychiatric Association, 2012):

- (1) Excessive time is consumed by sexual fantasies and urges, and by planning for and engaging in sexual behaviour;
- (2) Repetitively engaging in these sexual fantasies, urges, and behavior (sic) in response to dysphoric mood states;
- (3) Repetitively engaging in sexual fantasies, urges, and behavior in response to stressful life events;
- (4) Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, and behavior;
- (5) Repetitively engaging in sexual behavior while disregarding the risk for physical or emotional harm to self or others.

Internet addiction or cyber-addiction still lacks academic clarity, though interest in the subject is increasing. The addictive nature of the compulsive and prolonged use of the internet is much disputed. Generally, compulsive use of the internet may not be considered as an addiction disorder, but as a behavioural addiction. In this study, I will stick to the more modest term, ‘Compulsive Use of Internet’ (Meerkerk, 2007). In any case, many scholars suggest that compulsive internet use needs attention within addiction research (Caplan, 2002; Davis, 2001; Meerkerk, 2007; Wang, 2001; Yang, Choe, Baity, Lee, & Cho, 2005; Young, 1998). Several attempts have also been made to evolve a set of clinical characteristics to diagnose ‘internet addiction’ (Beard, 2005; Ko, Yen, Chen, Chen, & Yen, 2005; Weinstein & Lejoyeux, 2010). A typical sample could be the work by Tao and colleagues (2010, p.563) that provides some criteria in the diagnosis of what they call, ‘internet addiction’:

- Preoccupation with the internet (thinks about previous online activity or anticipates next online session);
- Withdrawal, as manifested by a dysphoric mood, anxiety, irritability and boredom after several days without internet activity; and,
- At least one (or more) of the following criteria:
 - Tolerance, that is, marked increase in internet use is required to achieve satisfaction as one continues to have repeated access to the internet;
 - Persistent desire and/or unsuccessful attempts to control, cut back or discontinue internet use;

- Continued excessive use of the internet despite knowledge of having a persistent or recurrent physical or psychological problem;
- Loss of interest in previous hobbies and entertainment as a direct result of internet use, while the interest in internet use increases;
- Use of the internet to escape or relieve from a dysphoric mood (e.g. feelings of helplessness, guilt, anxiety).

In this section, an attempt has been made to understand addiction and its characteristics. How does this tie up with psychology of religion and positive psychology? The next section will examine the salience of character strengths in the spirituality-addiction literature. In this way, the three theoretical strands of this study will be brought together: psychology of religion, positive psychology, and the psychology of addiction and recovery.

3.2. Character Strengths in Spirituality and Addiction: A Systematic Literature Review

In stating the objectives of this study in Chapter 1, two research questions were raised. The purpose of the present section is to seek to answer conceptually the first research question through a literature review: Can the mediators of the association between spirituality and recovery from addiction be identified in terms of the character strengths of positive psychology? Thus, this section attempts partly to fulfil the first objective: to identify the salient character strengths that feature in the relationship between religion/spirituality and recovery from addiction through a systematic literature review. Also, the approach here is only conceptual in that it intends to form the basis for the generation of a set of hypotheses. The organisation of this part of the chapter is complete in itself with its own description of procedure including the method of literature search, analysis, results, and discussion sections.

3.2.1. Description of procedure

Systematic literature reviews are common in life-sciences, particularly in medical sciences. The procedure of meta-analysis attempts to analyse data combined from a number of studies statistically, and to identify, appraise and synthesise available evidence. Generally, it is a quantitative procedure. However, qualitative systematic

literature reviews are also increasingly being published in peer-reviewed journals (Butt, Markle-Reid, & Browne, 2008; Higginson, & Sen-Gupta, 2000). While the quantitative systematic review helps to evaluate the strength of available evidence in terms of numbers, the qualitative procedure helps in systematically schematising the constructs used in measures and intervention protocols (see for instance, Thomas et al., 2004). The present review does not deal with the primary data from the studies but with the attributions made by the authors on the basis of the primary data they have reported. It is therefore a review of the discourse of addiction researchers on the relationship between religious spirituality, character strengths, and addiction-recovery.

Three steps are said to be important in a systematic literature review: selection of the available sources, analysis of the sources and reporting the identified patterns. In the present systematic literature review a qualitative approach was used. The objective of this procedure was to identify the constructs in the addiction-spirituality literature in terms of the character strengths of positive psychology, to use the identified pattern in the generation of hypotheses for this study, and to partly direct the intervention towards the identified character strengths. The use of computer-assisted qualitative data analysis software programme, namely NVivo-8, offered the advantage of being able to handle large data set, to check for consistency in coding, and to digitally transfer coded data to the report (Leech & Onwuegbuzie, 2011).

Literature search

At the beginning of September 2010 a search was run in the EBSCOhost digital database on the following Boolean formula: “addiction AND (spiritual* OR religio* OR mindfulness).” The following databases were selected for the search: Academic Search Complete, PsycINFO, MEDLINE, PsycEXTRA, PsycARTICLES. The search targeted the abstracts field. The inclusion criteria were the following: a) articles; b) published in peer-reviewed journals; c) in English language; d) using terms ‘addiction’, ‘religion,’ and ‘spirituality’ as defined in the present study; e) and with access to full texts.

The initial search yielded a total of 2480 entries. After fine tuning the search for English language, peer reviewed articles with full texts, 622 articles were available. In the second level of selection, the abstracts of the 622 articles were read, and some articles (n=477) were rejected for reasons listed in the inclusion criteria, and as described in the flow chart in Figure 3.2. Out of this process 145 articles were selected. To these, 39 full text articles that were manually extracted from various other sources

were added. Most of these articles were identified through cross referencing. This rendered a total of 184 full text articles.

At the third stage, the 184 articles were read in full. The articles that were read could be classified under three general categories: literature reviews, conceptual papers, and empirical research reports (see Table 3.4). The aim of the present literature review was not just to establish the prevalence of the character strengths of positive psychology in terms of number of occurrence, but most of all, to examine how these themes were handled within the addiction-spirituality literature. For this purpose, while whole texts were useful from systematic reviews, meta-analyses and conceptual papers, only the discussion sections were of particular interest from quantitative research reports. The articles that showed some direct association between the various dimensions of spirituality and recovery, and then attempted to discuss the possible mechanism behind their findings were most useful for this review. Some articles were rejected either because they did not really discuss the psychological nature of addiction or because they did not consider 'religion', or 'spirituality' as understood in the present study. For example, at times 'addiction' was used in a commonsensical way to refer to habits, or 'religion' was mentioned without any relation to addiction, or the word 'spiritual' was used in a theological sense. The flow chart (Figure 3.2) describes in further detail the selection criteria. The selected articles ($n = 53$) were then imported into NVivo software for coding. The methodology employed in the coding process could be termed as 'Qualitative Thematic Analysis'.

Qualitative thematic analysis

"Thematic analysis is a method of identifying, analysing and reporting patterns (themes) within data" (Braun & Clarke, 2006, p.79). Often this approach goes beyond identifying and analysing to interpreting various aspects of the research topic (Boyatzis, 1998). In this way, thematic analysis is very flexible. Though very similar to qualitative content analysis, it is distinct from other methods of qualitative research like narrative or discourse analysis (Eto & Kyngäs 2008; Hsieh & Shannon 2005). This method remains a foundational approach to those qualitative methods that use thematic identification.

Thematic analysis consists of coding the data systematically and finally reporting patterns that are identified in the data. The paradigm of contemporary qualitative research often presupposes that even the template of themes (nodes) is evolved in the process of interpreting the data. This is particularly the case in grounded

theory approach (Charmaz, 2008). Braun and Clarke (2006), however, are sceptical of the passive role of the researcher in the analysis process. When the themes are said to ‘emerge’ from the data, “it denies the active role the researcher always plays in identifying patterns/themes...” (p.80). Another hybrid approach is to allow the template to ‘emerge’ from the data based on a theoretical framework (Fereday & Muir-Cochrane, 2006). This approach presupposes a deductive-inductive interactive process: applying the theoretical framework to the data and identifying themes, and finally to attempt to refine the theoretical framework based on the themes from the data. In a similar attempt in this study, understandably the theoretical framework came from positive psychology (Peterson & Seligman, 2004). The coding template, as acknowledged earlier, was the set of 24 character strengths of the VIA, which were described in Chapter 2. The texts extracted from published articles served as the qualitative data. The coding process itself consisted in identifying lexical equivalents and significant phrasal expressions of character strengths in the selected literature.

Analysis and coding procedure

The data analysis was carried out following the steps suggested by standard sources on qualitative analysis in psychology (for instance, Lyons & Coyle, 2007). A similar procedure was employed in a previous work by this research student (Selvam & Collicutt, 2013).

Step 1. Initial Coding: The selected documents were imported from ‘PDF format’ into the NVivo software. The documents were then meticulously read, highlighting words, phrases and sentences that had resemblance in expression or meaning to the 24 character strengths. One of two criteria were used in determining ‘resemblance’: a) phrasal resemblance: when the text-unit employed the exact vocabulary, or its equivalent, that is already used in the discourse of Values in Action (as listed in Table 2.1, page 44), or b) semantic resemblance: when the text-unit expressed meaning that was close to the description of the character strengths in positive psychology (Peterson & Seligman, 2004) which is also summarised in the present study in section 2.3.2 (pages 44 to 53). Obviously some level of interpretation was involved in the second criteria. This has to be considered within the hermeneutical realist paradigm of the present study.

The highlighted text-units were selected in such a way that they made complete sense. Their length ranged from one to five sentences. Each highlighted text-unit was assigned a node. When a particular text-unit had reference to more than one theme, it was assigned to more than one node. Nodes are simply themes or names under which text-units are coded. (Being consistent with NVivo, I use the term ‘node’ to refer to themes, and ‘to code’, as a verb, to refer to the process of assigning a text-unit to a node). Whenever the title of the character strengths could be assigned as the node for the highlighted text, this was done; if not, a node was assigned using a phrase or a vocabulary from the text itself (for an example of a coded data, see Appendix A). At this stage the assigned themes are called Free Nodes. At the end of the first step, a total of 82 Free Nodes were identified.

Step 2. Axial Coding: In the second level of coding the Free Nodes were merged into more generic nodes. The outcome of this process in NVivo is referred to as creating Tree Nodes. No new nodes were created at this stage, but existing nodes were merged to reduce their number.

Step 3. Thematic Identification: At this stage, an attempt was made to merge the second level of Tree Nodes into the predetermined themes from the coding template, i.e., the 24 character strengths (Table 2.1). NVivo keeps count of the number of extracts that are coded under a particular node. Table 3.5 reports these numbers. In this table sub-sub-nodes are the nodes that were identified in the process of open coding. Sub-nodes are those that were also free nodes during open coding, but during axial coding they were identified as generic nodes that could receive some of the sub-sub-nodes into themselves. Finally, nodes are character strengths.

Step 4. Report Writing: When called for, NVivo also generates lists of texts that were coded under a particular node. These textual extracts were used to write up the report on the salient character strengths in the addiction-spirituality literature.

3.2.2. Results of the literature search

Literature selection – a summary

The flow chart (Figure 3.2) reports the results of the literature selection process using an adopted model from David Moher (2009).

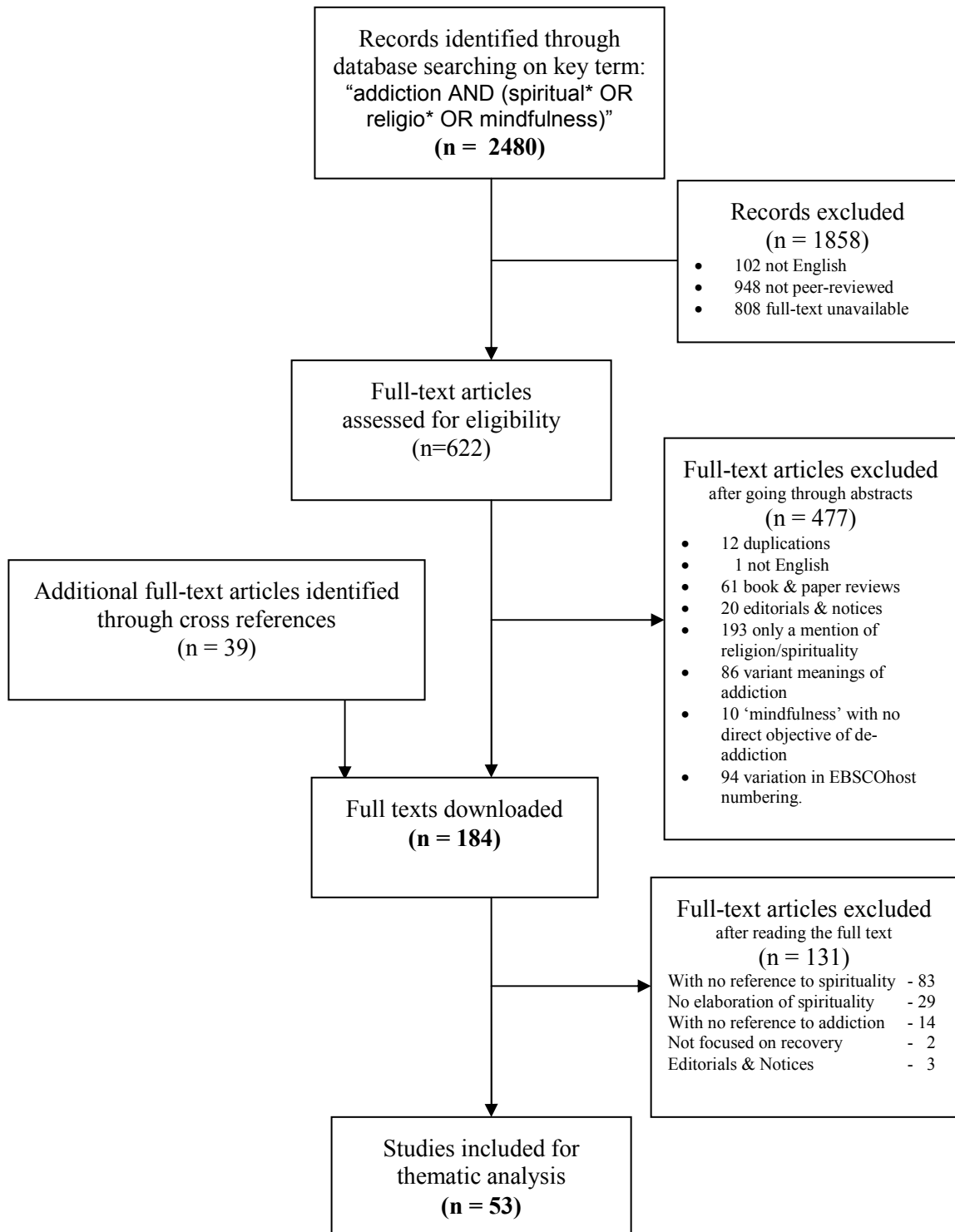


Figure 3.2. Summary of literature selection

Description of the selected literature

Table 3.3 presents the list of 53 peer-reviewed articles that were included in the present systematic literature review. Their full details appear in the list of References at the end of the dissertation.

1. Avants, Marcotte, Arnold, & Margolin, 2003	28. Lambert, Fincham, Marks, & Stillman, 2010
2. Avants, Beitel, & Margolin, 2005	29. Longshore et al., 2009
3. Bell, 2007	30. Lyons, Deane, & Kelly, 2010
4. Best, Ghufuran, Day, Ray, & Loaring, 2008	31. Magura, Knight, Vogel, Mahmood, Laudet, & Rosenblum, 2003
5. Blakeney, Blakeney, & Reich, 2005	32. Marcotte, Margolin, & Avants, 2003
6. Bristow-Braitman, 1995	33. Miller, 1998
7. Brown, Whitney, Schneider, & Vega, 2006	34. Morjaria & Orford, 2002
8. Brown, O'Grady, Battjes, & Farrell, 2004	35. Neff & Macmaster, 2005
9. Brown, 2006	36. Piderman, Schneekloth, Pankratz, Maloney, & Altchuler, 2008
10. Chapman, 1996	37. Piedmont, 2004
11. Chi, Kaskutas, Sterling, Campbell, & Weisner, 2009	38. Polcin & Zemore, 2004
12. Cook, 2004	39. Robinson, Cranford, Webb, & Brower, 2007
13. Coyhis & Simonelli, 2008	40. Saunders, Lucas, & Kuras, 2007
14. Davis & Jansen, 1998	41. Swora, 2004
15. Dyslin 2008	42. Toussaint, 2009
16. Earle, Dillon, & Jecmen, 1998	43. Turner, O'Dell, & Weaver, 1999
17. Flynn, Joe, Broome, Simpson, & Brown, 2003	44. Unterrainer, Ladenhauf, Moazed, Wallner-Liebmann, & Fink, 2010
18. Galanter, 2007	45. Vaillant, 2005
19. Galanter, 2006	46. VonDras, Schmitt, & Marx, 2007
20. Geppert, Bogenschutz, & Miller, 2007	47. Walker, AINETTE, WILLS, & MENDOZA, 2007
21. Gregoire, 1995	48. Warfield & Goldstein 1996
22. Hazel & Mohatt, 2001	49. Weegmann & Piwowoz-Hjort, 2009
23. Johnson, Sheets, & Kristeller, 2008	50. Wilkund, 2008
24. Kelemen, Erdos, & Madacsy, 2007	51. Wills, 2007
25. Kelly, Magill, & Stout, 2009	52. Wills, Gibbons, Gerrard, Murray, & Brody, 2003
26. Knight, Sherritt, Sion Kim, Holder, Kulig, Shrier, et al., 2007	53. ZEMORE, 2007
27. Kogan, Luo, Murry, & Brody, 2005	

The publication dates of these studies ranged from 1995 to 2010. It is interesting to note that, though there was no restriction made on the basis of publication date in the search criteria, most of the studies included here were published between 2006 and 2010 (56.6%). This could be an indicator of the growing interest in this area

of research. A good number of the reviewed articles were related to the 12-steps of AA (41.5%); 56% of the studies were empirical (n=30), and others were either conceptual papers or systematic reviews (Table 3.4).

Table 3.4
Description of the studies included for review

Type of Research	No.		Year of Publication		Related to AA			
	No.	%	Years	No.	%	No.	%	
Conceptual	18	34.0	1995-99	7	13.2	Yes	22	41.5
Lit. Review	5	9.4	2000-05	16	30.2	No	31	58.5
Qualitative	8	15.1	2006-10	30	56.6	Total	53	100
Quantitative	21	39.6	Total	53	100			
Mixed method	1	1.9						
Total	53	100						

Summary of nodes: Prevalence of character strengths

In the final tally (Table 3.5), out of the 24 character strengths, 10 of them scored two-digit percentage points (Fig. 3.3). The percentage points indicate the degree of their prevalence in the coded text. Among the 10 most featured character strengths Spirituality scores the highest percentage, followed by kindness. Out of the other 14 character strengths that scored below the two-digit percentage points, nine of them scored below 2%, while citizenship scored 9.43%, and humour and gratitude 3.77%. The 7 character strengths that had no reference at all (0%) were curiosity, open-mindedness, bravery, persistence, leadership, prudence, and appreciation of beauty. It is interesting to note that a near 10 point score in citizenship was contributed by the *sub-node* of responsibility (7.55%).

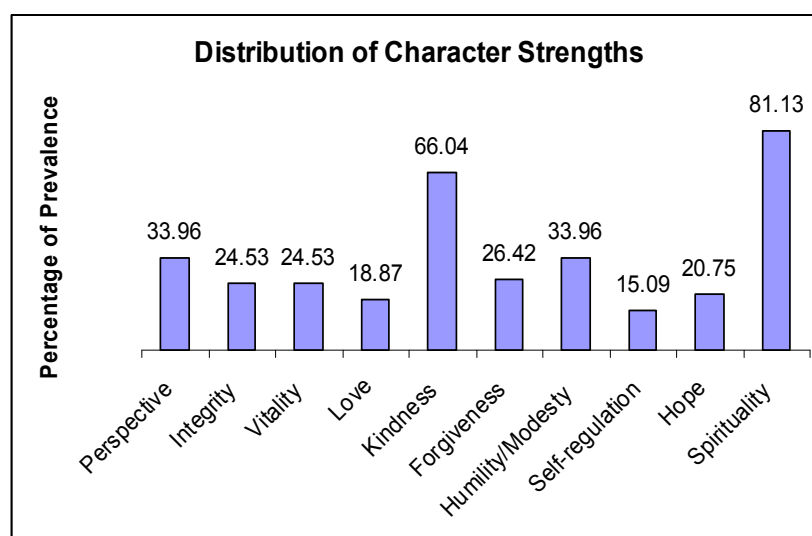


Figure 3.3. Distribution of Character Strengths in the Literature

Table 3.5
Summary of nodes and their contents

Nodes	Subnodes	Sources	References	Percent of Sources
	Sub-subnodes			
CS1	Curiosity	0	0	0.00
CS2	Love of learning	1	1	1.89
CS3	Open-mindedness	0	0	0.00
CS4	Creativity	1	1	1.89
CS5	Social intelligence	1	1	1.89
CS6	Perspective	18	36	33.96
	Equanimity	4	5	7.55
	Being here and now	1	1	1.89
	One day at a time	1	1	1.89
	Meaning & purpose	12	19	22.64
	Purpose in life	2	2	3.77
	Self knowledge	3	6	5.66
	Consciousness	1	1	1.89
	Sense of coherence	4	4	7.55
	Wisdom	2	3	3.77
CS7	Bravery	0	0	0.00
CS8	Persistence	0	0	0.00
CS9	Integrity	13	32	24.53
	Authenticity	7	12	13.21
	Self disclosure	2	2	3.77
	Truth	3	3	5.66
	Values	5	6	9.43
CS10	Kindness	35	64	66.04
	Affiliation	2	5	3.77
	Altruism	7	11	13.21
	Compassion	1	2	1.89
	Helping	2	3	3.77
	Interconnectedness	3	3	5.66
	Relatedness Human	22	31	41.51
	Social network	9	10	16.98
	Rootedness (culture)	1	1	1.89
	Social support	14	19	26.42
CS11	Love	10	20	18.87
	Friendship	3	4	5.66
	Positive family relationships	3	9	5.66
	Parental support	1	1	1.89
	Trust	1	1	1.89
CS12	Citizenship	5	5	9.43
	Responsibility	4	4	7.55
CS13	Fairness	1	1	1.89
	Moral inventory	1	1	1.89
CS14	Leadership	0	0	0.00
CS15	Self-regulation	8	9	15.09
	Freedom to choose	3	3	5.66
CS16	Prudence	0	0	0.00

CS17	Appreciation of beauty	0	0	0.00
CS18	Gratitude	2	2	3.77
CS19	Hope	11	18	20.75
	Future orientation	1	2	1.89
	Optimism	5	8	9.43
	Positive attitude	2	4	3.77
CS20	Spirituality	43	93	81.13
	Connection to larger reality	6	8	11.32
	Contact with the spiritual self	2	3	3.77
	Divine	17	33	32.08
	God	15	28	28.30
	Soul force	1	1	1.89
	Faith in Higher Power	4	5	7.55
	Faith-Religious	4	4	7.55
	Meditation	2	2	3.77
	Non-materiality	1	1	1.89
	Non-religious spirituality	2	3	3.77
	Prayer	5	6	9.43
	Relatedness - Higher Power	4	6	7.55
	Religiousness/Religiosity	5	6	9.43
	Spiritual awakening	1	1	1.89
	Transcendence	5	5	9.43
CS21	Humility	18	37	33.96
	Escape from the burden of the ego	10	14	18.87
	Sense of personal worth	3	3	5.66
	Self esteem	6	8	11.32
	Surrender	4	7	7.55
	Letting go	2	3	3.77
CS22	Humour	2	2	3.77
CS23	Vitality	13	24	24.53
	Healing	1	1	1.89
	Open to growth - transformation	3	6	5.66
	Desire to change	3	4	5.66
	Wholeness	10	15	18.87
	Integration of conflicting opposites	2	2	3.77
CS24	Forgiveness	14	31	26.42
	Forgiveness from God	3	7	5.66
	Self-forgiveness	1	2	1.89
	Forgiving others	2	11	3.77
	Reconciliation	3	7	5.66

Notes 1: Sources indicate the number of articles that had reference to the node;
References refer to the number of times that theme appeared.

2: Numbers between nodes and sub-nodes are not expected to add up, as the same reference could have been coded under two nodes.

3.2.3. Character Strengths identified from the addiction-spirituality literature

As a way of summing up the insights gained from the literature review, it is worthwhile considering how the character strengths that feature in the addiction-spirituality literature are treated and understood. In the section that follows a summary of the coded texts on the ten most prevalent character strengths is presented. The indented quotes are sample coded texts from the selected articles. Particular attention is paid to the sub-nodes, because these varied terms and expressions add better conceptual clarity to the character strengths as they are dealt with within the reviewed literature. I will also consider how these sub-nodes interact with each other within the generic category of character strengths.

Perspective (Wisdom)

The two terms ‘perspective’ and ‘wisdom’ are used almost synonymously in positive psychology. In the reviewed literature, the other themes that the researcher assigned under the node of perspective were ‘equanimity’, ‘self-knowledge’, ‘meaning and purpose’, and ‘sense of coherence’ (Table 3.4). These terms were chosen from the texts themselves.

Equanimity (Avants, Beitel, & Margolin, 2005) is one of the dimensions in which recovering addicts are trained in the Spiritual Self Schema (3-S) Therapy that is used to facilitate recovery. Equanimity consists in being aware and focussed. These concepts are also captured in AA philosophy of “not drinking ‘one day at a time’ instead of forever” (Davis, & Jansen, 1998, p.176). Self awareness (Marcotte, Margolin, & Avants 2003) and self acceptance (Miller, 1998) were also seen to facilitate transformation and recovery. A case study by Marcotte, Margolin, and Avants (2003) captures this in relation to abstinence from drug use:

By the end of treatment, [Pauline] had significantly increased her self-awareness, had begun the process of resolving past regrets, decided she would live her remaining days with greater honesty, had achieved 4 weeks of abstinence from cocaine, was more attentive to health-related issues, and was able to focus on the needs of others as well (p.173).

Of all the sub-nodes that came up under perspective, ‘meaning and purpose’ had the highest number of references. There was a dilemma in classifying this sub-node under ‘perspective’, because ‘purpose’ itself could relate to ‘hope’. However, ‘meaning’ is considered in positive psychology as an aspect of wisdom. Therefore this sub-node appears under wisdom or perspective. Meaning and purpose were identified

as an important dimension (22.64%) in the avoidance of, and recovery from, addiction:

Individuals who endorsed higher levels of search for meaning reported more negative beliefs about alcohol (Johnson et al., 2000, p.166).

Meaning and purpose are also seen to be related to sense of coherence:

This sense of coherence lends meaning, provides a system of rules to govern behavior, (sic) and patterns various cognitive functions, such as foresight, appraisal and evaluation of situations, and decision making (Hazel, & Mohatt, 2001, p.542).

Purpose in life was significantly correlated with forgiveness of self, forgiveness of others, and feeling forgiven by God for patients of an outpatient rehabilitation program at both baseline and 6 month follow-up (Lyons et al., 2010, p.535).

Again, there appears to be some reciprocity between relationship with others and meaning and purpose, and this reciprocity, in turn, has an effect on recovery:

The question of meaning is also a question of one's own being in relation to others and with the world of which God might be perceived to be a part (Wilkund, 2008, p.2431).

Helping people find healthy ways of making contact with others may help them develop meaning in their own lives (Gregoire, 1995, p.352).

Integrity

Integrity (CS9) was related to 'authenticity', which also included references to 'honesty' (see also Cook, 2004). Some of the dimensions of integrity, even as they are understood within positive psychology could have a degree of moral implication. In this sense, integrity has a bonding with fairness (CS13), which is about justice. However, in the articles reviewed here, there was very little reference to justice as such. Therefore, while integrity was identified as one of the ten prominent character strengths, fairness did not get much treatment. One of the coded sources captures the meaning of integrity, which is consistent with the understanding of positive psychology, and is related to recovery:

Integrity, we argue, is what's being recovered in recovery. Integrity is a way to understand and operationalize general character. It includes but is not limited to moral judgement development, because integrity demands consistency between judgement and action. It implies a self-consistent moral self, whose feelings, thoughts and behaviour form a mutually informative and transformative regulatory system. A person of integrity, aware of his or her feelings, aware of conflicts, context and what is ultimately at stake, chooses and carries out right action. By integrity we mean more than consistency, whole-ness, and general character (Blakeney, Blakeney, & Reich, 2005, p.75).

This extract points out the impact of integrity, or the lack of it, on addiction and recovery. It is further supported by other texts. The addictive behaviour exhibits a lack of integrity and authenticity. A person with an addictive problem, due to loss of self-control, is not able to act as he or she wishes. Often this split could be internal:

Here Daniel tells us, from a point of view that stands outside himself, that he recognises the split between his feelings and his thoughts (Blakeney, Blakeney, & Reich, 2005, p.71).

Other times it is simple enough to notice in:

the continued use of a substance while experiencing moral qualms over its consumption (Galanter, 2007, p.270).

However, the recovery process bridges the split, facilitating integrity:

[Rachel] alternates between enmeshment in two contexts: member of society and rebel against society. The split soul, as she describes it, is the inability to reconcile the parts, and thus to recover integrity. Recognition of the split, however, is, in the words of Alcoholics Anonymous' Twelve Steps, the First Step (Blakeney, Blakeney, & Reich, 2005, p.71).

Often taking that first step itself demands honesty (Swora, 2004). However, when this step is taken, there emerges a new self, as shown in another case study (Marcotte, Margolin, & Avants, 2003):

As the contact with this newly emerging spiritual self increased, so did the desire for honesty and the strong desire to talk about her experience in a free and open manner (p.172).

At the core of her recovery process, Pauline identified the freedom to be honest and the invaluable benefit of having a place to tell her story in a way that felt "authentic" to her (p.173).

In this discussion, it is not difficult to discern that integrity is related to integration (wholeness), which has been coded under vitality (CS23).

Kindness

Kindness was identified as the second most prominent node, after spirituality, having 64 references associated with 35 sources (66%). It is impossible to quote them all. A typical statement was that sobriety is associated with,

a strong sense of the need to contribute to family and community. Often central to this process was a desire to help others and contribute to the community by working with others in recovery programs or being a role model for community members (Hazel & Mohatt, 2001, p.554).

Persons with addictive behaviour tend to be self-absorbed. In contrast, in a relationship the individual is invited to break the confining boundary of selfhood and go beyond the self. How is kindness understood within the addiction-spirituality discourse? What positive psychology lists as kindness is expressed in a variety of terms within the addiction-spirituality literature. In this analysis they are reported as nodes and sub-nodes: affiliation, altruism, compassion, helping, human connectedness, interconnectedness, social support, community support, community network, and fellowship. These terms have their specific connotations. The word, 'fellowship' is much used within the discourse of AA (Bristow-Braitman, 1995). Fellowship refers not only to the actual meetings of AA, but also to the aspect of social support offered by the peers in the recovery process.

Both AA and the Emmanuel Movement recognized the importance of engaging alcoholics in group work and mutual support. AA's founders believed that only through involvement with other alcoholics could a person expect to recover. When people connect with each other they transcend the self-centered relationship with alcohol (Gregoire, 1995, p.352).

Similarly, affiliation can be understood to be a dimension under kindness, related to social network. Affiliation in the positive sense is an expression and the fulfilment of the sense of belonging (see Kogan, Luo, Murry, & Brody, 2005). Another term that captured the meaning of the character strength of kindness is 'altruism'. Altruism was further linked to nodes like 'helping', 'connection to others', 'escape from the burden of ego'. The last term could also be expressed as 'escape from self-absorption'. This is best expressed in a work exploring the effect of providing opportunity for people with addictive problems to reach out to others in a helping relationship:

It has been suggested that helping enhances helpers' self-perceptions of independence, competence, usefulness, and/or social status; fosters relationships with others; and diverts helpers from excessive self-absorption (Zemore, 2007, p. 448).

Love

Positive psychology has a more restrictive understanding of 'love' that is distinct from 'kindness'. Love is a specific way of relating to individuals with whom there is a long term relationship. This relationship is generally mutual, but always enhancing the growth and humanity (human life and dignity) of those in that relationship. It could be expressed in physical and emotional intimacy (Peterson, 2006, p.32), but also with the freedom for choice. Love is associated with recovery from addiction:

New love relationships are important to recovery. It seems important for ex-addicts to bond with people whom they have not hurt in the past and to whom they are not deeply emotionally in debt. Indeed, it helps for them to bond with people whom they can actively help (Vaillant, 2005, p.432).

Nevertheless, in more precise terms, love can be understood in terms of familial relationships and friendships. Parent-child relationship seems to have a direct and indirect role in addiction prevention.

It should be noted that parental support was prominent as a protective factor for both younger and older adolescents, with indirect effects through both attitudinal and self-control constructs, and the risk-promoting effect of parent-child conflict was mediated through similar paths (with opposite sign) to self-control and deviance-prone attitudes (Walker, Anette, Wills, & Mendoza, 2007, p.93).

The results gave some support for parent-child communication as a unique protective construct, showing that communication about drugs and sex is related to more unfavorable prototypes of substance users (Wills, Gibbons, Gerrard, Murray, & Brody, 2003, p.320)

Parent-child relationship is seen to play a role in friendships among adolescents, particularly as understood as peer-relationships. And this in turn plays an important protective role in addictive behaviour.

Youths with positive attachments to parents internalize more conventional norms, which subsequently influence their peer selection (Kogan, Luo, Murry, & Brody, 2005, p.388).

Self-regulation

Among the ten prominent character strengths that were identified in the literature review, self-regulation had the least score (15% of prevalence). This defies commonsensical assumption that self-regulation, which includes also self-control, would have a higher impact on prevention and recovery. A close examination of the coded texts further reveals that often there is only a mention of the expression 'temperance' or 'self-control' with no further exploration of these constructs. Wills and colleagues (2003) treat self-regulation within the context of familial relationships as cited earlier:

Thus, parent-child relationship appears to have generalized effects on self-regulation and social perceptions (p.321).

Hope

In the coding process, the sub-nodes that were identified under hope were optimism and future orientation. These are also used as dimensions of hope in positive

psychology. In the context of addiction research, hope is seen as a strong mediator of recovery and positive treatment outcome.

Hope is generally defined as positive expectations for the future, hopelessness as negative expectations... the early installation of hope for the future is a key element to recovery through the 12 steps (Magura et al., 2003, p.307).

[T]his study also suggests the particular significance of clients' felt optimism/pessimism about their lives. Those who question their capacities to overcome adversity or doubt their abilities to achieve are significantly more likely to show negative treatment outcomes (Brown, O'Grady, Battjes, & Farrell, 2004, p.457).

Hope, as explored in several studies reviewed here, is also linked to spirituality, and sometimes specifically to God (Swora, 2004). Another author defines spirituality itself in terms of hope:

Spirituality is thus defined as an active process engaging hope in the ongoing development of connection to self, to others, and to the universe, and health is understood as a confluence of the physical self, or the body, the mental self, mind, and the spiritual self, or the spirit/soul (Wills, 2007, pp.431-32).

The conclusion of Margaret Wills (2007) could serve well as the conclusion to our section on hope pointing to its relevance to recovery. Wills herself is quoting another paper that was also selected for the present review.

Taken together, these studies suggest a significant relationship between hope, defined by Magura et al. as "positive expectations for the future," (2003, p. 307) and health/healing.

Spirituality

Spirituality and its dimensions have been identified as the most prevalent character strength in the reviewed data with 43, out of the 53 articles (81.13%) having texts that could be coded under this node. These overwhelming numbers cannot be definitive because 'spirituality' was a key word in the search criterion. A beneficial discussion here would be to consider the way spirituality is treated and interpreted within the addiction research literature.

The definition of spirituality offered by Cook (2004) is akin to the way this character strength is defined within positive psychology:

Spirituality is a distinctive, potentially creative and universal dimension of human experience arising both within the inner subjective awareness of individuals and within communities, social groups and traditions. It may be experienced as relationship with that which is intimately 'inner', immanent and personal, within the self and others, and/or as relationship with that which is wholly 'other', transcendent and beyond the self. It is experienced as being of

fundamental or ultimate importance and is thus concerned with matters of meaning and purpose in life, truth and values (pp.548-49).

A salient set of free nodes under spirituality in the present review were nodes that had reference to the concept of 'higher power'. Besides faith in higher power or relatedness to higher power, the other nodes included: God (with an understanding of the greater power having a personal nature offering the possibility of relating to 'Him' in a personal way), and Divine (a more abstract way of understanding). The sources that use the term 'God' more frequently were mostly qualitative studies.

For instance, in an ethnographic study among Afro-American women recovering from cocaine use, the author reports (Brown, 2006):

It is of interest to note that the women did not attribute their sobriety to the support they received from church members, but rather to their personal relationship with God (p.37).

In another qualitative study involving focus groups and survey, Hazel and Mohatt (2001) report one of the participant's expressions about the support she found in spirituality in her recovery process:

I had confidence that Yes! God will listen to little me and yes God did a lot of work in my heart. He helped me to see I was very special and he cared about me (p.555).

This finding could indicate that while researchers and therapists, in an attempt to be politically correct might use abstract terms like 'Greater Power' and 'Divine', most participants themselves could be at home with the personal expression: 'God'. It is in this context then it becomes easy to understand the 11th step of AA that speaks about prayer and meditation: "Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out." This step implies a personal relationship with the Higher Power as Swora (2004) confirms in her study of AA:

Many AA members describe their relationship with their Higher Power in conversational terms, and thus if prayer is talking to God, then meditation is listening to God (p.202).

Still more on prayer, Lambert and colleagues (2010) report, from their study that involved randomised experiment design, that prayer frequency was related to decrease in alcohol consumption over a period of three months.

Humility

In the language of AA, humility seems to emerge in a person with an addictive behaviour as a result of an awareness of having hit “rock bottom”. It consists in the admission of their own short-comings (Keleman, Erdos, & Madacsy, 2007).

Consequently, they own up to their sense of powerlessness over their life (Dyslin, 2005). This humility in turn invites the person to turn to a “Higher Power” (Morjaria & Orford, 2002):

Accepting powerlessness is an antecedent for handing over one's will/ control to a Higher Power, through which participants reach a point of finding life more manageable (p.235).

This, however, does not imply self-abnegation. On the contrary, it could be an experience of inner exaltation:

In the personal narratives of recovering addicts, the hero's progress, the story of the Prodigal Son can be identified as they are clearly related to humility (Keleman, Erdos, & Madacsy, 2007, p.139).

This humble self-awareness contributes to increase in self-esteem (Marcotte, Margolin, & Avants, 2003), and finally paves a way towards self-growth:

Sobriety, however, is more than just abstinence from drinking, but a special state of being different from both drinking and pre-drinking times. Often, this state of being is described as more humble, serene, and less self-centred way of being in the world, one that is open to change and growth (Swora, 2004, p.192).

Vitality

There were several references to the integration of the physical, psychological and spiritual aspects of the self, and this integration was said to contribute to general wellbeing and freedom from addiction. These references were coded under ‘wholeness’. While integrity as a character strength of courage has a moral connotation, as discussed above, integration has a direct reference to health and wellbeing, and hence this was classified under the character strength of vitality. Here is a typical example:

Recovery for AA participants began with "hitting rock bottom", through which participants began to spiral through a process of recovery leading to a holistic change to their being, incorporating the physical, emotional and spiritual aspects of life. This reflects the perception of participants of their alcohol problem as a physical, emotional and spiritual illness, which necessitated a re-assessment at all levels. ... they formed a complex relationship of inter-connected processes that aided recovery of the self (Morjaria & Orford, 2002, pp.240-241)

Closely linked to the above understanding of integration were also other references to the integration of opposites and the ability to integrate even conflicting realities, these were coded under a separate node: ‘Integration of conflicting opposites’:

“Native people embrace both the seen world and the unseen world, the head and the heart, for full recovery. It is just that heart-centred (sic) processes seem to be the key that opens the lock to recovery and then on to Wellbriety for Native peoples” (Coyhis & Simonelli, 2008, p.1933).

Another term that was used in relation to sobriety was ‘harmony’, which was eventually merged with the node of ‘wholeness’. ‘Harmony’ in relation to sobriety was seen to be related to spirituality and value-based transformations:

All of the participants spoke about the central importance of spiritual or value-based transformations. Such moral changes were invariably linked to medium- and long-term recovery, to concepts such as ‘acceptance’ and, for some, the development of a greater sense of sobriety (inner peace or harmony) (Weegmann & Piwowoz-Hjort, 2009, p.278).

Forgiveness

In the coding process ‘forgiveness’ was one of the simpler nodes. Many entries were directly coded into this character strength. Sometimes, however, there was a need to make a distinction between at least three types of forgiveness: Self-forgiveness, forgiving others and seeking forgiveness from others (reconciliation), and the experience of being forgiven by God. While speaking about humility, self acceptance was mentioned.

For an addicted person, acceptance of self often involves the work of self-forgiveness (Bristow-Braitman, 1995, p.417).

Self-forgiveness in turn facilitates recovery:

These findings suggest that forgiveness of self may be more strongly associated with a reduction in substance use, while forgiveness of others and by God may have a stronger relationship with spirituality (Lyons et al., 2010, p.534).

Turner and colleagues (1999) further confirm the importance of self-forgiveness in remaining sober:

What did surprise us was that the need for self-forgiveness remained a second most important need after as many as five years of sobriety (p.146).

Forgiveness of others, and even reconciliation, is very much encouraged in the 12-steps of the Alcoholics Anonymous. Of particular significance is the ninth step. This is shown to have an effect on recovery (Lyons, Deane, & Kelly, 2010). Opinion on

the effect of forgiveness from God is more mixed:

Webb et al. (2009) also explored the construct of feeling forgiven by God. It was found that feeling forgiven by God did not predict mental health among alcohol use disorder outpatients (cited in Lyons, Deane, & Kelly, 2010, p.535).

In a similar vein, Neff and MacMaster (2005) point out that a model of recovery based on the forgiveness of God has to be better formalised. Moreover, these different aspects of forgiveness also express certain interaction and have an impact on other character strengths like hope and meaning of life:

These appraisals of self in relation to others and to God (or a higher power) are viewed as providing an important basis for imputing meaning to life experience. Appraisals involving shifts from views of a “punishing” to “forgiving” God are said to be especially important in recovery, as are changes in the direction of forgiveness of self (and increasing self-acceptance of self-worth) and others as well as shifts from negative to positive religious coping strategies (Neff & MacMaster, 2005, p.674).

3.2.4. Discussion on the identified character strengths

This section on literature review began with the question: Can the mediators of the association between spirituality and recovery from addiction be identified in terms of the character strengths of positive psychology? The identified themes have presented a substantial amount of literature-based data in answer to this question. In general, the section has shed some light on understanding the literature that reports the influence of spirituality on recovery from addiction. It has helped to break down the constructs of spirituality, within the context of addiction research, in terms of character strengths. The interesting parallel that is worth pointing out is that there are clear similarities in the list of nodes and sub-nodes that featured in this literature review and a list of constructs of spirituality that is provided by Cook (2004, p.545) in his review of 265 published books and articles on spirituality and addiction, which was reported in the present dissertation in the previous chapter. In this sense, the current study adds data to the work of Chris Cook.

NVivo software is one of the useful tools for qualitative studies that employ thematic or content analysis. Normally it is used to analyse qualitative data collected through interviews, focus groups, or audio-visual sources. In this section, the data was culled from published articles. Even so, this process has also been enlightening. This has shown, to some extent, that it is possible to carry out a systematic qualitative literature review of published research reports in a particular field, and the use of

software adds value to the process. Though the phrasal similarities are identified by the researcher, the software helps to remember and report patterns within the data. In the following discussion I add more comments on the literature and the process of the review.

The 12-Steps and the Character Strengths

Out of the 53 articles reviewed for the present project, 22 (41.5%) were on the 12 Steps approach to recovery. Each of the 12-steps can be argued to correspond to one or more character strengths that feature in the list of Values in Action (see Table 3.6). In fact, Galanter (2007), in one of the articles reviewed here, has proposed that AA can be explored within the framework of positive psychology, particularly focussing on how AA might influence positive affect and how this can facilitate recovery.

Another interesting observation is that, the character strengths that have been identified in this analysis seem also to be supported by religious traditions, particularly the indigenous religions. The 12 steps of AA actually render these character strengths in a contemporary parlance. Among the selected articles, there were at least two projects that studied the association between traditional religions and recovery from addiction in connection to the 12 Steps. For instance, in a qualitative study on Native American religious traditions, one of the participants states:

“Time and again our Elders have said that the 12 Steps of AA are just the same as the principles that our ancestors lived by, with only one change. When we place the 12 Steps in a circle then they come into alignment with the circle teachings that we know from many of our tribal ways. When we think of them in a circle and use them a little differently, then the words will be more familiar to us” (Coyhis & Simonelli, 2008, p.1934).

The ‘weak’ character strengths in the reviewed literature

As reported in the results section, nine character strengths could be identified with a frequency of below 2%, and humour and gratitude scored a mere 3.77%, and citizenship 9.43%. Among these 14 character strengths, seven of them that had no reference at all (0%) were curiosity, open-mindedness, bravery, persistence, leadership, prudence, and appreciation of beauty.

Table 3.6
The 12-steps and character strengths

		Values in Action	References from the reviewed works
1.	We admitted we were <i>powerless</i> over alcohol—that our lives had become unmanageable.	Humility	Swora, 2004; Morjaria & Orford, 2002
2.	Came to believe that a Power greater than ourselves could restore us to sanity.	Spirituality Hope	Swora, 2004; Morjaria & Orford, 2002; Magura et al., 2003
3.	Made a decision to turn our will and our lives over to the care of God as we understood Him.	Spirituality	Morjaria & Orford, 2002
4.	Made a searching and fearless moral inventory of ourselves.	Integrity	Weegman & Piwowoz-hjort, 2009
5.	Admitted to God, to ourselves, and to another human being the exact nature of our wrongs.	Forgiveness Forgiveness	Morjaria & Orford, 2002
6.	Were entirely ready to have God remove all these defects of character.	Spirituality Forgiveness Hope	Weegman & Piwowoz-hjort, 2009; Magura et al., 2003
7.	Humbly asked Him to remove our shortcomings.	Humility Spirituality	N/A
8.	Made a list of all persons we had harmed, and became willing to make amends to them all.	Forgiveness	Lyons, Deane, & Kelly, 2010.
9.	Made direct amends to such people wherever possible, except when to do so would injure them or others.	Forgiveness	Lyons, Deane, & Kelly, 2010.
10.	Continued to take personal inventory and when we were wrong promptly admitted it.	Humility Persistence	Morjaria & Orford, 2002
11.	Sought through prayer and meditation to improve our conscious contact with God as we understood Him, praying only for knowledge of His will for us and the power to carry that out.	Spirituality	Swora, 2004
12.	Having had a spiritual awakening as the result of these steps, we tried to carry this message to alcoholics, and to practice these principles in all our affairs.	Spirituality Kindness	Lyons, Deane, & Kelly, 2010; Policin & Zemore, 2004

This suggests that some character strengths are perceived to be less relevant to addiction recovery than others. This could be a hypothesis to be tested in empirical enquiry. However, from common sense, perhaps prudence could be a relevant character-strength to explore in the context of addiction-spirituality research. Another surprising indicator is the low prevalence of self-control which is grouped under the core virtue of temperance in Values in Action (Peterson & Seligman, 2004). It is possible that self-control or temperance is not yet sufficiently explored in addiction research, particularly among the dimensions of spirituality, or it could be that the way these constructs are defined within addiction research is different from the way positive psychology understands it. In any case, the character strengths that have not featured prominently in the current study might need to be further explored.

Limitations of the literature review

The literature search for this review was based on digital databases alone. It does not include chapters from books, for instance. While using digital sources has yielded a set of relevant peer-reviewed articles, the presence of some bias in the sampling process cannot be ruled out. On the other hand, given the plethora of publications now available in the field of spirituality and addiction, it would have been impossible to do a sensible literature review without using some delimiting parameters, particularly given the fact that this exercise was only part of a larger project. Additionally, the coding process in the thematic analysis for the present version of the study was carried out solely by the research student, with some helpful observation from the supervisors. This is justifiable within the scope of this work which is a PhD project. Collaborative analysis on the selected literature could improve the reliability of the findings.

3.2.5. Towards a conceptual framework

During the coding process, on several occasions there was some dilemma about how a particular text could be coded. Often, one piece of text was attached to several nodes. Without denying the subjectivity of the coder, this dilemma also suggests that there is a high level of association between the character strengths. This further supports the understanding within positive psychology, as pointed out in the previous chapter, that though the character strengths are distinct dimensions, they are not isolated entities. In the present qualitative thematic analysis a pattern is discernible in inter-

relationship between the salient character strengths. This has been provisionally represented in a diagrammatic manner in Figure 3.4. A number of questions follow from this analysis. Could the pattern that has emerged from the present qualitative analysis form the basis of a model to be tested in the context of spirituality-addiction research? On yet another plane, (a) if these character strengths (Figure 3.4) are relevant in the context of addiction, that is wisdom, vitality, integrity, self-regulation, humility, love, kindness, forgiveness, spirituality and hope; and (b) if these character strengths are malleable (Seligman, 2004) and their use can be marshalled and maximised (Linley, Willar, & Biswas-Diener, 2010), then can it be hypothesised that addiction could be

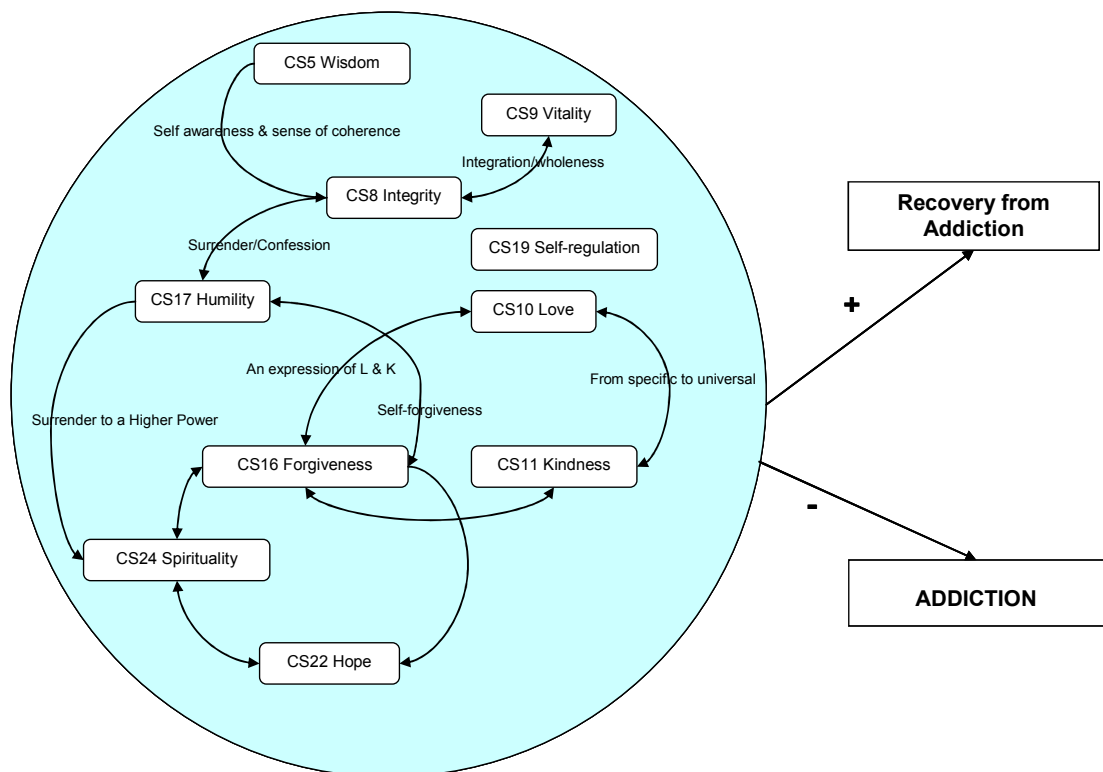


Figure 3.4. Identified relationship among salient character strengths in the lit. review

related to a lack in these character strengths, and that recovery could be facilitated by maximising these strengths? At the very least, the current qualitative systematic literature review has suggested that these character strengths are salient in the addiction-spirituality literature. It seems that addiction research has used these terminologies often without a unifying theoretical framework. Such a framework is offered by the Values in Action in positive psychology.

3.3. From Addiction to Wellbeing through Character strengths

The purpose of this section is to understand addiction and wellbeing within the theoretical framework of positive psychology, particularly in terms of character strengths. It is envisaged that the resultant conceptual framework would provide the justification for hypothesising the role of character strengths in the association between religious spirituality and addiction recovery.

3.3.1. A holistic understanding of addiction and recovery

The word ‘holistic’ (from the Greek word, ‘holos’, which means, ‘whole’ or ‘complete’) is intentionally used here to highlight the importance of the whole and the interdependence of its parts. That is, the system processes involved in addiction cannot be adequately understood by explaining its component parts separately. This holistic approach will help scholars avoid reductionism. This said, it is impossible for every scientist to focus on the whole. Scientific enquiry often tends to progress when the whole is ‘reduced’ to its fundamental parts. However, this convenient focus on a part is not to be taken to reduce the whole to the part alone. That is why, even if the main focus of the present study is the role of character strengths mediated through religious spirituality in addiction recovery, I would like to situate this focus within the understanding of the whole.

The holistic framework of addiction, represented in Figure 3.5, which I have evolved based on literature research, brings together several ongoing attempts to present a comprehensive model in understanding addiction and the significant moderators in recovery from addiction (Bozarth, 1990; Kelly, Magill, & Stout, 2009; Kelly, Stout, Magill, & Tonigan, 2010; West, 2006). This framework includes factors that act as predispositions to addiction, the processes involved in addiction, various interventions that facilitate recovery, the maintenance of abstinence, and the possible relapse. Coverage of all these dimensions of addiction in detail is beyond the scope of this project. The following, therefore, is a brief summary of the more relevant information.

Predispositions and protective factors

The holistic framework speaks about predispositions and protective factors rather than causes. The predispositions could be considered as only potential causes, which could be activated by some psychological and physiological triggers. These

predispositions are often treated also as individual differences (Gelkopf, Levitt, & Bleich, 2002; Shiffman & Paton, 1999). Individual differences could include factors such as genetic make-up, sex, age, intelligence, and personality traits. In the context of the present project the focus will be on the role of character strengths in addiction, which is related to personality traits (Peterson & Seligman, 2004, p.10).

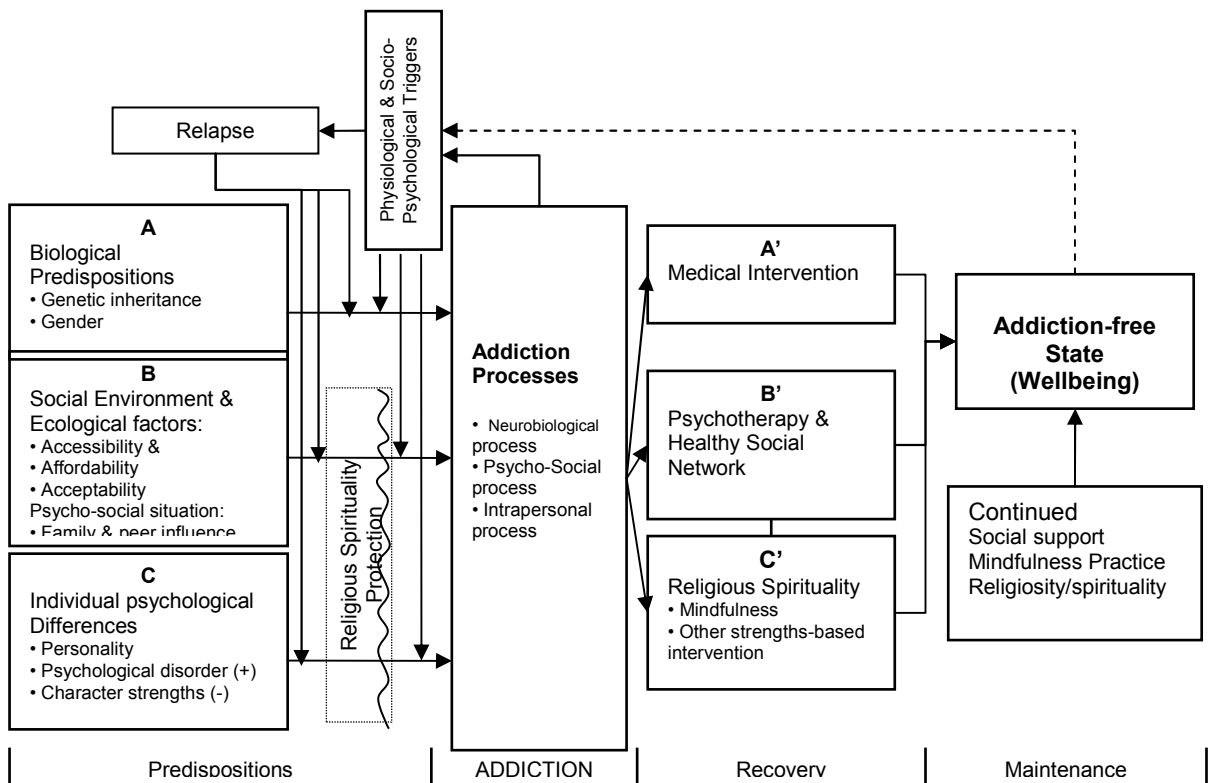


Figure 3.5. A holistic framework of addiction

The predispositions begin with a list of biological factors. These include genetic inheritance and gender difference. Several studies based on archival data on twins have found moderate to strong genetic influence with heritability estimates of 40%–60% of alcoholism among males. One of the first studies among a US-American sample of 3,516 male twins based on personal interviews, showed 48%–58% of the variation in liability attributed to additive genetic factors, with the remainder attributed to environmental influences (Prescott & Kendler, 1999). For females, the heritability of alcohol dependency is typically estimated to be 25% (Ball, 2008). However, attempts to identify the genes that are responsible for such an influence and the genes that might also play a protective role in some people, are too complex and perhaps inconclusive (Ball, 2008). From the point of view of evolutionary psychology one might raise the

query: what function did these apparently dangerous genes have in the evolutionary process? The genes that prompt neural mechanisms of the dopamine pathways that are responsible for reinforcement that is recognisable in addiction “might have evolved for social recognition, reward and euphoria – critical elements in the process of [social] attachment” (Insel & Young, 2001, p.134). In other words, the genes (actually DNA) which have evolved to enhance dopamine activity to motivate social attachment behaviour in interpersonal relationships get usurped by the reward system to the detriment of the organism in addiction.

As far as gender is concerned, prevalence of nicotine and alcohol dependence is observed more among men (Shiffman & Paton, 1999); and the reasons and the circumstance for abuse could be different between the sexes (Haseltine, 2000; Tuchman, 2010). However, some of these differences may not be driven by variance in gender biology, but by cultural determinants. For example, women in Norway are as likely to be at risk of nicotine dependency as their male counterparts, whereas in Indonesia only about 20 women exhibit nicotine dependency for every 100 men (Shiffman & Paton, 1999). As regards propensity for addiction the differences between genders could be determined by brain biology (Haseltine, 2000) and the way emotions are processed (Ko, Yen, Yen, Chen, & Wang, 2008).

The second set of predispositions represents the psycho-social environment. Several studies have shown that increased accessibility, affordability and acceptability to addictive substances in a social environment increase addiction among the population of that environment. That is, if addictive substances are easily available to individuals in a given environment, if individuals have the means to access them, and if it is quite normal to do so in their social environment, then addiction prevalence is likely to be high. For instance, lower pricing on cigarettes encourages higher consumption, and consequently also high nicotine dependence (Becker, Grossman, & Murphy, 1991). There is also a large volume of literature on the role of external factors on the level of alcohol abuse across the globe. These factors include alcohol taxation, ban on sales, and legal restrictions on exposure (Barbor, 2010; Edwards, 1997). This research-data provides support for the importance of public policy in regulating alcohol abuse.

To this domain of social environment familial situation could be added as an influential factor. In a sense, genetics could also feature within the familial influence. This was discussed above. Here it is relevant to consider the significance of the social influence of the family. A review article studying the influence of family on addictive behaviour makes this strong claim: “The problems of addiction intertwine with those of

the family” (Sorenson, 1989, p.134). This claim becomes realistic when the influence of the family is understood not merely in terms of having a previous history of addiction, but in terms of the functional and structural issues within the family that play a crucial role in the onset, development and maintenance of addictive behaviour (Pinheiro et al., 2006; see also Philips, 2006). Another study is more modest in its claim (Frank et al., 2001). This study acknowledges that the influence of the family cannot be generalised in the origin of addiction, as there may be other social factors. In any case, where there is a greater consensus among scholars is on the positive influence of the support offered by the family during the process of recovery from addiction (Copello & Orford, 2002).

Among other social environmental factors that are crucial to addiction is peer influence. Peer influence is particularly strong in initiation into smoking and the use of drugs (Gecková et al., 2005). In his Problem Behaviour Theory, Jessor (1987) suggested peer pressure as one of the factors influential in any deviant behaviour. The consoling aspect of peer influence is that its role in initiating addiction begins to decline with increasing age (McIntosh, MacDonald, & McKeganey, 2006). In general, the influence of social factors is confounded by personality.

The discussion on personality types and personality disorder takes us to consider the role of individual differences in addictive behaviour. I will reserve the discussion on character strengths to a later section in this chapter. Based on some preliminary evidence, Eysenck (1997) suggested that development of addictive behaviour is based on excessive dopamine functioning. This is consistent with Eysenck’s interest in explaining the biological basis of personality. Though the question of how the dopamine activity mediates addiction is not sufficiently explained, Eysenck points out that high dopamine activity is related to the personality dimension of psychoticism, and this in turn is associated with high prevalence of addiction among some people (see also Lester, 1989). Psychoticism is one of the three traits included by Eysenck in his P-E-N model of personality. The E and N in this model stand for Extraversion and Neuroticism. These were later integrated into the Big-Five Model of personality (McCrae & Costa, 1989). With this insight of the dopamine activity and personality trait, Eysenck attempts to explain why some people who might take up smoking to deal with stress in certain situations may not end up being addicted to nicotine. Therefore, he suggests the possibility of the existence of an “addictive personality,” which he defines as “a type of person who is readily addicted to certain types of behaviour which are reinforcing, and will continue to indulge in these behaviours even after the

circumstances giving rise to them have changed” (Eysenck, 1997, p.80). On a less technical sense of the understanding of personality, addictive behaviour is more prevalent among individuals who like to seek fun (Yen, Ko, Yen, Chen, & Chen, 2009); and people who were given to aggressive behaviour and suicidal tendencies (Cuomo, Sarchiapone, Giannantonio, Mancini, & Roy, 2008). Within the framework of the Big-Five model of personality, sensation-seeking and impulsive behaviour can be associated with extraversion, and anxious behaviour (introvert pole of extraversion) can create a propensity for addiction (Caselles, Micó, & Amigó, 2010). In this context, it would be interesting to consider the role of the character strength of curiosity in addiction.

The presence of more serious psychological disorders confounds into a situation of comorbidity, and thus further predisposing individuals to addiction. Comorbidity is a condition whereby two or more mental disorders occur in the same individual, such that the disorders affect their course and prognosis. Addiction often co-occurs with other mental disorders (NIDA, 2010a). For instance, bipolar disorder and addiction is one such common comorbidity. According to some studies, up to 60% of people with bipolar disorder experience some form of substance abuse in their lifetime (NIDA, 2010b). The role of bipolar disorder is even more telling on behavioural addiction. Behavioural addiction, that includes pathological gambling, sex addiction, and internet addiction, is more significant among people with bipolar disorder than among healthy controls. This may be attributed to high impulsivity levels (Di Nicola et al., 2010). Similar comorbidity is observed between addiction and ADHD, anxiety disorders, and schizophrenia. The reason for this can be attributed to the indication that similar brain areas are involved in mental disorders and addiction (NIDA, 2010b).

Triggers (Exposure and Initiation)

The presence of predispositions may not lead to the development of addiction. There is a need for a trigger in the form of physical and/or psychological factors. A physical factor refers to the mere exposure to the addictive substance or situation. Among psychological triggers trauma and stress play an important role. Several studies have shown that adolescents or adults who exhibit addictive behaviour have often also had some type of traumatic experience. For instance, in a comparative study among prison inmates, those with addiction scored higher in childhood-trauma measures as compared to those who did not have addiction (Cuomo, Sarchiapone, Giannantonio, Mancini, & Roy, 2008). This finding has been consistent with other similar studies (Bernstein, 2000). The interdependence of trauma and addiction create a toxic feedback

loop: that is, trauma related distress could prompt addiction compulsion and then addictive behaviour can create further psychological distress (Miller, 2002).

Similar phenomenon can also be said of the impact of stress on addiction. Data obtained from both clinical and preclinical studies show that exposure to stress has a significant impact on drug addiction (Goeders, 2003). One possible explanation for this could be provided by the self-medication hypothesis, that is, individuals intentionally use drugs to treat themselves to handle psychological symptoms from which they suffer (Khantzian, 1997). The preclinical studies among animals suggest that “stress increases reward associated with psychomotor stimulants, possibly through a process similar to sensitization” (Goeders, 2003, p.435). In some cases, however, it may not be easy to establish if some conditions like stress, anxiety and depression are antecedents or consequents of addictive behaviour (Viney, Westbrook, & Preston, 1985).

Addiction Processes

When there are predispositions for addiction, and are triggered by physiological or psychological factors, a pathway for addiction is generated. It is not within the scope of the present work to elaborate an aetiology of addiction. Some of the theories and models of addiction that were reviewed in Section 3.1 actually attempt to explain the processes underlying addiction itself. The addiction process can be examined under at least three general themes: neurobiological processes, psycho-social processes, and intrapersonal processes. The opponent process theory and allostasis discussed in this chapter is based on the neurobiological process involved in addiction. This will be further discussed below in examining the relationship between character strengths and recovery. Intrapersonal processes include inner cognitive and emotive activities like the decision making processes and rumination following trauma that go on within individuals in the build up to a full-blown addiction. Unfortunately, these are not studied much in addiction research.

The development of the addiction process itself could be represented in various pathways. Two typical models are presented by Jaffe (1975) and Bozarth (1990). They have the following stages:

- Circumstantial or experimental use: some of the social factors discussed above could serve as triggers to initiate the use of an addictive object. Initial use begins to generate neurotransmitters related to a reward system. These neurotransmitters create a pathway for further use;

- Casual use: the pathway created by the influence of neurotransmitters facilitates continued but more detached use;
- Intensive use: this stage is marked by an increase in amount and frequency. Bozarth (1990) named the above three stages collectively as “acquisition phase.”
- Compulsive use: Jaffe (1975) himself has not made a clear distinction between the stage of compulsive use and addictive use; however, this could be understood as a stage before the full-blown stage.
- Addictive use: at this stage the addictive behaviour has all the characteristics of addiction listed in the previous chapter. Bozarth (1990) refers to this stage as the “maintenance phase.” According to him, this stage is developed by cognitive expectancies and sustained by neuro-adaptive factors. It is important to note that in Figure 3.5, contrary to the use of the term by Bozarth, ‘maintenance’ is used to refer to sustaining recovery in an addiction free state as it is used for instance by Marlatt and Gordon (1985).

Interventions facilitating recovery

Though this PhD project focuses on dimensions of spirituality in terms of character strengths that are significant in the onset and recovery from addiction, it does not mean to downplay the importance of pharmacological intervention in substance based addictions. As discussed earlier on pages 88 to 91, there are varieties of addiction. Some addictions are more physiologically based than others, hence some forms of addiction might need pharmacological intervention more than others. Pharmacological interventions play a key role in the effective treatment of alcohol and drug dependence at different stages. They are used in detoxification, maintenance therapy, and in relapse prevention (Preston & Bigelow, 1985; Watson & Lingford-Hughes, 2007). Generally researchers are realistic about the effectiveness, and at the same time the limitation, of pharmacological interventions:

Although significant advances have been made in the pharmacological domain it is important to remember that opioid abuse is not simply a pharmacological problem. It is also - and perhaps primarily- a behavioral (sic) and social problem. Similar problems of drug abuse occur with pharmacologically diverse classes of drugs -for example, alcohol, stimulants, sedatives, etc. Thus, a pharmacological panacea is unlikely. However, pharmacological advances do provide improved tools for changing behavior, for ameliorating the distress of drug-abusing patients, and for benefiting the community at large (Preston & Bigelow, 1985, p.862).

Rightly so, in the sections above one repeated theme has been the interaction between addiction and other psychological disorders and conditions. This calls for comprehensive intervention models (Miller, 2002). A similar view is expressed by George Vaillant (2005), who cites several longitudinal studies to show that medical intervention alone does not have a long term effect particularly on prevention of relapse. Thus, he points out that substance addiction is not a simple physiological condition. He suggests that the reason why professional therapy alone has not been effective is that in drug addiction it is not the cortex of the brain that is involved, but what is sometimes referred to as the 'reptilian brain'. Neurological changes caused by addiction in midbrain nuclei make abstinence a difficult task for willpower. Therefore, interventions that are crucial in maintaining abstinence go beyond pure physiological intervention.

It is emerging more clearly that even in psycho-social techniques of therapy no single treatment approach is effective for all persons with alcohol problems. Project MATCH has done some impressive work in trying out the effectiveness of different psychotherapy approaches in the treatment of alcoholism (Cutler & Fishbain, 2005; Longabough & Wirtz, 2001; Miller, 2005; Project MATCH Research Group, 1998). Some multi-site clinical trials in which patients were randomly assigned to Twelve-Step Facilitation, Cognitive-Behavioural Coping Skills, *or* Motivational Enhancement Therapy, showed that all three treatment approaches are effective in the treatment of alcoholism. The drop-out rate and treatment outcome depended much on various conditions including clients' social network, anger, and psychiatry severity (Project MATCH Research Group, 1998). The influence of spirituality based intervention and the phase of recovery and maintenance are further explored in the following section.

3.3.2. The hypothetical framework: Character strengths as mediators in recovery

Flowing from the holistic understanding of addictive behaviour, this project proposes a hypothetical conceptual framework of addiction that attempts to delineate the psycho-social and spiritual mediators of recovery from addiction and maintenance of abstinence. And this is explored in terms of character strengths. In other words, from the holistic understanding of addiction and recovery, as presented in Figure 3.5, I now focus on, and elaborate, boxes C and C' and their relationship to addiction and recovery. This is further expanded in Figure 3.6. This framework of addiction attempts to account for mediators and related processes that are beyond the physiological aspect of addiction. This does not mean that the practice of character strengths does not have

physiological substrates. As will be described later, character strengths could be associated with neurobiological phenomena related to pleasure and reinforcement. The focus here, however, is on the psychological dimensions of character strengths as understood within positive psychology.

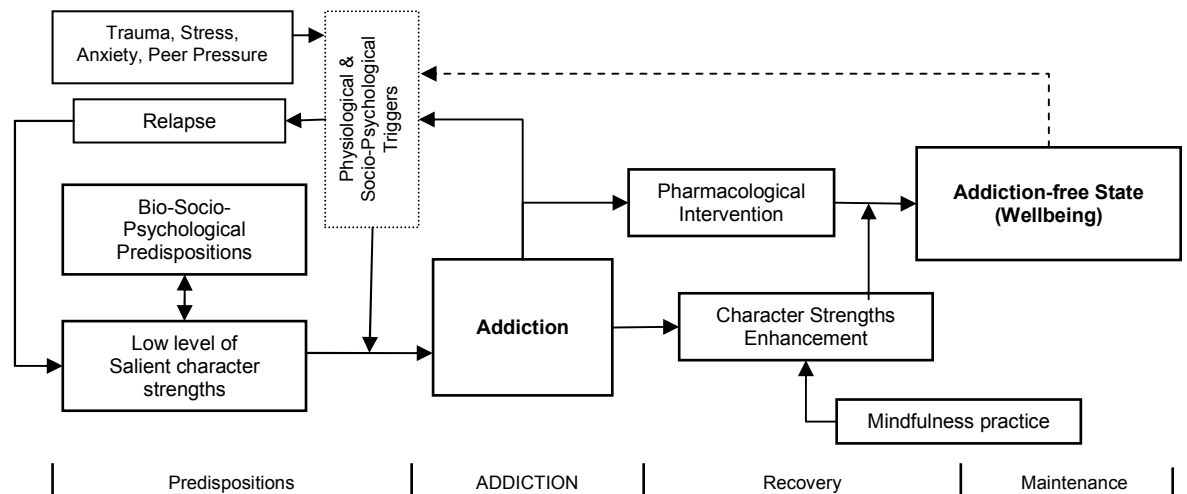


Figure 3.6. Understanding recovery and maintenance.

This framework (Figure 3.6) hypothesises that a low level of salient character strengths when coupled with Bio-socio-psychological predispositions makes the individual susceptible to addiction. When this vulnerability is aggravated by psychological triggers like stress and trauma, and when the individual is exposed to pleasurable stimuli, or relief from a negative affective state, by having recourse to an addictive substance or addictive situation then a pathway for addiction is created (as illustrated also in Figure 3.6). I will return to this shortly. Recovery from addiction, on the other hand, could be facilitated by medical intervention. This may be crucial particularly when the addiction has a strong physiological base as in addiction to some types of substance or alcohol. However, as I have pointed out earlier, because addiction is not purely a physiological phenomenon and it is hypothetically linked to a low level of salient character strengths, there is a need for interventions that enhance these character strengths. This could be achieved through interventions related to social network, mindfulness practice and other strengths-based intervention (see C' and stage of maintenance in Figure 3.5). Based on the literature review, the previous section has identified the salient character strengths that could be hypothetically associated with addiction and recovery.

The addiction-free state facilitated by these interventions would need to be maintained through continued cultivation of character strengths even when the physiological intervention is withdrawn. There is a possibility of relapse when the person with a previous history of addiction is exposed to physiological and socio-psychological triggers. However, their effect would be moderated through sustained high level of relevant character strengths.

This hypothetical model has been arrived at through the literature review. One of the objectives of this research project is to test aspects of the model. The next section further expands the hypothesis within the theoretical framework of positive psychology.

Hedonia versus Eudaimonia and their relation to addiction and recovery

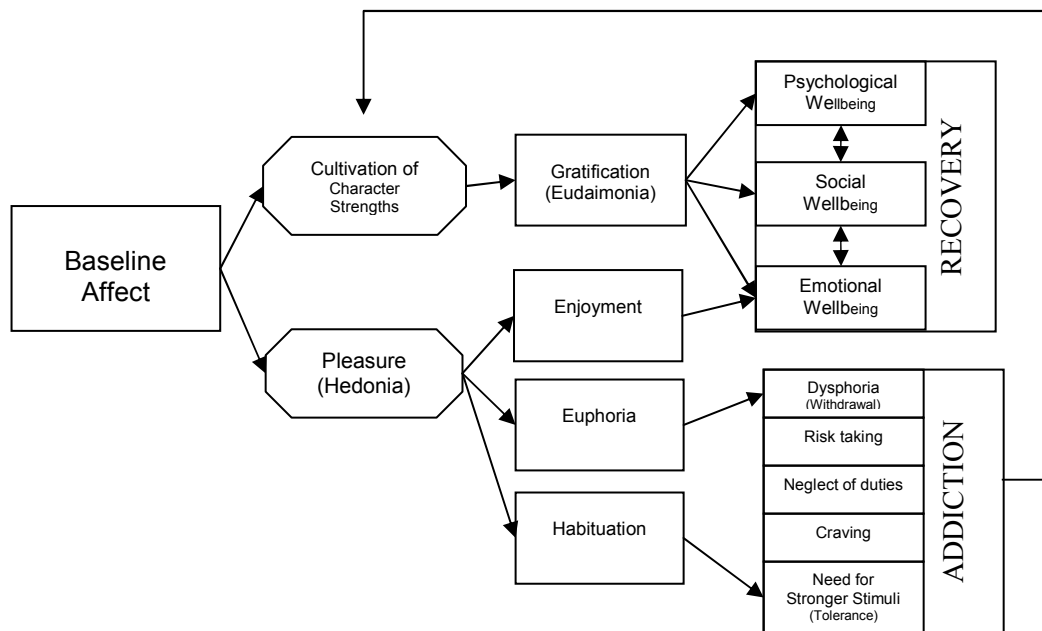


Figure 3.7. A proposed model of addiction based on positive psychology

Figure 3.7 further elucidates the process of addiction in terms of positive psychology: the cycle of pleasure–euphoria–dysphoria contributes to tolerance and habituation, and thus creating a cycle of reinforcement which could lead to full-blown addiction. Similarly, the cycle of pleasure-habituation-need for stronger stimuli could also lead to addiction. These two cycles (expressed in withdrawal and tolerance) are also associated with other characteristics of addiction, which includes craving, risk-taking, and neglect of social responsibilities. This phenomenon can be elucidated by the impact of pleasure on organisms. In our attempt to understand the role of pleasure in addiction we need to understand the various positive affective states in the human

organism, how they interact, and how they contribute to, or jeopardise, human wellbeing. Positive psychology provides a viable theoretical framework to examine this. It not only helps us consider how pleasure is associated with, and is different from, wellbeing, but also goes beyond to attribute wellbeing to a state that emerges from a set of character strengths (Seligman, 2002).

As it has been pointed out on page 39, positive psychology makes a distinction between subjective wellbeing, social wellbeing and psychological wellbeing. The literature of positive psychology makes use of different terminologies to name positive affective states and some of them are not yet clarified. For instance, there is confusion of terms - what Seligman (2002, p.115) prefers to call 'gratification', Csikszentmihalyi (2002) calls 'enjoyment'. These confusions suggest that psychological understanding of affective states is still a work in progress (Kristjánsson, 2010). On the other hand, the complexity of terminology goes to show that pleasure, happiness and wellbeing lies in a spectrum of psycho-social states with a varying degree of valence.

Positive psychology suggests that pleasure (largely understood as *hedonia*) is not negative in itself. It has a limitation insofar as exaggerations are concerned. The exaggeration in intensity could lead to euphoria, and the exaggeration in frequency and duration could lead to habituation. Subsequently, the state of euphoria could trigger a downshift in a state of 'dysphoria' (Awad & Voruganti, 2005). Neurobiology attributes dysphoria to dopamine depletion; and dopamine is a neurotransmitter that is active in pleasure and reward-seeking behaviour (Bressan & Crippa, 2005). Now, to overcome the discomfort, and even the depression associated with this dysphoria, the individual might return to the stimuli. The repetition and compulsion of this process establishes the cycle of addiction. Similarly, habituation in an organism is the decreased psychological and behavioural response to a stimulus after repeated exposure. To handle the frustration caused by habituation the individual might want to have a larger dose of the stimuli and thus creating tolerance. In this context, it is useful to recall what was said in Section 3.1 in connection to the processes of homeostasis and allostasis. Dysphoria and habituation could be understood in terms of homeostasis and allostasis. The downward shift in dysphoria could be a reaction of the brain to maintain balance following an upward swing. Habituation, on the other hand, may be a mechanism of the organism to stabilise the reward function by not reacting to normal level of stimulus, and in the absence of stimulus by showing a high variation in order to remain stable (Sterling & Eyer, 1988).

There is some neurobiological evidence for the discussion above. The processes associated with pleasure and addiction seem to support the character-strengths-hypothesis of addiction, at least provisionally (see Esch, & Stefano, 2004). Pleasurable experiences in organisms may trigger several types of neurotransmitters in the brain, like dopamine and endorphins. Let us focus on endorphins (*endogenous morphines*). They are so called, because they are morphine like substances produced within the body by the pituitary gland and hypothalamus, during strenuous activity, excitement, and orgasm. The endorphins act as natural pain relievers and provide a sense of wellbeing. Pleasurable activities are useful for wellbeing and are capable of improving concentration and cognitive function such as memory (Esch, Fricchione, & Stefano, 2003). This may not necessarily constitute addiction. However, the loss of flexibility and extreme control of behaviour in addiction may depend on the type of agent used to induce pleasure, its amount, duration and frequency (Esch, & Stefano, 2004, p.238). It may be beneficial to make a distinction between pleasure and, what Esch and Stefano (2004, p.245) call, ‘enjoyment’:

pleasure can be seen as the good feeling that comes from satisfying homeostatic needs such as hunger, sex and bodily comfort, whereas enjoyment may refer to the good feelings people experience when they break through the limits of homeostasis – when they do something that stretches them beyond their current existence. Hence, enjoyment rather than pleasure may lead to personal growth and development, yet providing good feelings or long-term happiness.

The possible confusion of terminology notwithstanding, we can also consider the third category of inner state: gratification. This includes social and psychological wellbeing, which is generated through a set of character strengths. It is interesting to note that endorphin-activity is also possible during a state of relaxation, as in a float-tank. Davidson and colleagues (2003) claim that exercises of mindfulness induce relaxation and sense of wellbeing, and the left-sided anterior activation of the brain is similar to those associated with positive affect. However, what distinguishes euphoric effects of pleasure and a state of enjoyment, as Csikszentmihalyi (1999/2002) understands it, and gratification, is the degree of effort that is involved in attaining the pleasurable state. To borrow an example from Csikszentmihalyi, the difference is seen in consuming a drug and playing football. The latter experience could lead to enjoyment due to the physical effort involved in it. In the context of the present study, it could be suggested that, sitting in contemplative practice may involve more effort and discipline than having recourse to a euphoric state and even playing football. Thus, contemplative practice could contribute to something higher than enjoyment, that is, gratification.

Seligman (2002) wonders why human beings readily choose pleasures (that lead to euphoria and eventually to habituation) over those means that lead to gratification. He tentatively suggests six possible factors that could make the choice of gratification less likely: “The gratifications are constraining; entail the possibility of failing; require skill, effort, and discipline; produce change; can arouse anxiety; and have opportunity costs” (p.290). These factors are also attested to by the work of Csikszentmihalyi (2002). He suggests that the path to wellbeing, even if it is more demanding, is of higher value. Therefore, strengths based interventions to facilitate recovery, even if they may be more demanding, could be significant in the journey towards higher forms of wellbeing that includes psychological and social wellbeing – a state that positive psychology identifies with eudaimonia. It might be useful to recall here what was said in the section that reviewed addiction theories, more specifically the theory of rational addiction. People who lack future orientation might calculate the possibility of increased, future gratification merely based on their experience of enjoyment in the present. And since the future gratification seems increasingly delayed, they attempt to increase their consumption of the present enjoyment, thus building tolerance, and eventually addiction.

Recovery: Psychological and Social Wellbeing through Character strengths

Psychological and social dimensions of wellbeing are useful in understanding addiction and recovery. It could be said that from the perspective of positive psychology, it will not be sufficient to understand recovery as the absence of addiction, but as the presence of wellbeing. And wellbeing understood in terms of eudaimonia presupposes inner states induced by the practice of character strengths. In the context of addiction and recovery, through the literature review, it could be suggested that some character strengths may be more relevant than others: wisdom, integrity, vitality, humility, self-regulation, love, kindness, forgiveness, hope and spirituality (Table 3.5 and Figure 3.4). These character strengths could be sub-grouped into three categories.

Firstly, among the relevant character strengths are some that are related to altruism: love, kindness and forgiveness. Some authors have proposed a possible genetic connection between the gratification in social attachment and addiction (Insel & Young, 2001). As cited earlier, the genes that prompt neural mechanisms of dopamine pathways that are responsible for reinforcement and addiction might have evolved for social attachment (Insel & Young, 2001, p.134). Conversely, addiction involves a certain type of self-centredness and self-absorption. Altruism is the opposite of self-

absorption (Seligman, 2004). Positive psychology claims that happiness and wellbeing are facilitated when individuals are in the company of others. This is supported by empirical evidence. Several studies have consistently shown that healthy social engagement, that involved personal choices, positively contributes not only to physical health but also to psychological wellbeing: reduced depression, better quality of life, and higher self-reported life satisfaction (Golden, Conroy, & Lawlor, 2009; Leung, Kier, Fung, Fung, & Sproule, 2011; Schellenberg, 2004). Studies on the 12-steps intervention show that one of the factors that contribute to recovery and prevention of relapse is the support of the group or the community that creates a healthy social network around the alcoholic (Davey-Rothwell, Kuramoto, & Latkin, 2008; Suire & Bothwell, 2006). Similar dynamics are observed in recovery process mediated by therapeutic communities (Wolfman, 2009).

The second set of character strengths focus on the self: wisdom, integrity, humility, and self-regulation. As elaborated in the description of character strengths, wisdom or perspective is seen to be a special type of knowledge that is used for the well-being of oneself and others (Kunzmann & Stange, 2007). Integrity is related to authenticity and honesty; it consists in being true to oneself, and owning up accurately one's inner states, intentions and commitments (Peterson & Seligman, 2004, pp.251-252). The aspect of the self in humility and self-regulation is obvious enough. While humility is a moderate estimation of oneself, self-regulation refers to how a person exerts control over his or her impulses and behaviour so as to pursue their goals. The character strength that is referred to as hope is also related to optimism and future orientation. Future orientation is said to reduce the propensity for addiction. According to Theory of Rational Addiction (TRA; Becker & Murphy, 1988) as cited by West (2006, p.34), "Individuals are generally more susceptible to harmful addictions to the extent that they disregard future consequences of their actions. They are more susceptible to beneficial addictions to the extent that they are more future-oriented." In other words, "drug addicts and alcoholics tend to be present-oriented, while religious individuals and joggers tend to be future-oriented" (Becker & Murphy, 1988, p.685).

Finally, spirituality as it is measured in the VIA includes religiosity and faith. It consists in having coherent beliefs about the higher purpose and meaning of the universe (Peterson, 2006, p.33). It could also include belief in a universal power, or what some religions call, 'God'. In summary, within the framework of religious spirituality, the salient character strengths could be grouped under three categories of self, others and God.

How could these character strengths be cultivated? As discussed in Chapter 2, mindfulness practice is said to cultivate not only positive psychological states but also character strengths. “Western scientific research on peak performance emphasizes discontinuous, time-limited peak performance states wherein individuals do things extraordinarily well in sports and in the arts. [Mindfulness practices] emphasize continuous excellence of being, in the form of traits or character strengths” (Brown, 2009, p.231). The present study aims to explore the possibility of cultivating character strengths through a religious-spiritual intervention incorporating a Christian version of mindfulness practice, and thus to test the conceptual framework.

3.4. Research Questions and Specific Hypotheses

Overall, the project addresses the following research questions:

1. Can mediators of the association between spirituality and recovery from addiction be identified in terms of the character strengths of positive psychology?
2. Can the identified character strengths be enhanced by a religious-spiritual intervention; and would this in turn be associated with reduction in indicators of addiction?

The focus of the first query is correlation. The second question would follow on from the first. Since correlation does not imply causality, if the mediating role of character strengths in recovery from addiction could be established in a spiritually simulated situation, then we could suggest a causal relationship. In attempting to answer the above research questions the present study intends to test the following hypotheses:

H₁: Negative associations between addiction measures and character strengths will be observed.

This hypothesis predicts the role of character strengths in addictive behaviour, based on correlation and regression. From the literature review the following character

strengths are hypothesised as the salient character strengths: wisdom, integrity, vitality, humility, self-regulation, love, kindness, forgiveness, hope and spirituality.

H₂: A pattern will be discernible in the association between character strengths and addictive behaviour.

The underlying presupposition of this hypothesis is that if a pattern could be discerned within VIA, identifying the character strengths (CS) that are relevant in addiction and recovery, then it would be possible not only to come up with a theoretical construct that will bring together the relevant CS, but also to focus on these character strengths to facilitate recovery in the future. Prediction based on the literature review (Figure 3.4) is that the 24 character strengths could form two groups based on their salience in the addiction-spirituality relationship.

H₃: The character strengths can be enhanced through a targeted religious-spirituality intervention; the intervention will be associated with indicators of greater recovery rate than the life-skills and control conditions.

As it has been said in the problem statement, spiritual interventions are said to facilitate recovery. And this project is concerned with identifying the mediators in spirituality facilitated recovery. If a spirituality based intervention like Christian mindfulness facilitates recovery and at the same time improves character strengths more effectively than a non-spirituality intervention like life-skills training, then it could be inferred that character strengths play a mediating role in spirituality induced recovery.

H₄: Any observed reduction in addiction scores will not simply be explicable in terms of a reduction in anxiety and depression, and any enhancement in character strengths will not be explicable in terms of enhanced coping styles.

As has been discussed in this chapter, addiction is influenced by a myriad of psychological predispositions and triggers. Would character strengths play a more significant role than other psychological conditions? The implication of this hypothesis is that a low score in character strengths is distinct from other psychological mechanisms such as lack of adequate coping; similarly, high addiction level is distinct from levels of anxiety & depression. The overall rationale for this hypothesis is to demonstrate the relative specificity of the association between character strengths and addictive behaviour.

Chapter 4

Method of Study

4.1. Research Design

In attempting to chart the relationship between religion and spirituality, I have proposed a multidimensional matrix that lends itself for the inclusion of religious spirituality. In proposing positive psychology as a theoretical framework for the psychological study of religion, I have suggested a multidimensional paradigm that integrates measurement and exploratory approaches. While quantitative approaches add rigour to psychology of religion, qualitative methods facilitate a greater dialogue between psychology and the cultural specificities of religion and spirituality (Belzen, 2010). The following description of the methods employed in the present study has to be understood within the epistemological framework of hermeneutical realism.

The empirical part of the present study was carried out in Nairobi, Kenya, involving a non-clinical population. It was approved by the Research Ethics Committee of Heythrop College, University of London. Informed consent was obtained from all participants. The study employed a mixed-method approach that included a questionnaire survey and intervention design. The questionnaires were generally administered by the researcher. A research assistant helped to establish contacts at the locations, and on some occasions, to administer the questionnaires. Participants for the intervention phase were recruited from among those who had scored above the cut-off point in the addiction measures of the survey.

The participants in the intervention phase were assigned to one of three conditions: mindfulness intervention, life skills intervention and no intervention (control group). The researcher was not directly involved in offering the interventions. This phase was double blind, that is, the participants and the trainers were blind to the hypotheses. The participants were not told their scores from the survey phase. The consistent cover-story was “The study is attempting to examine the effect of spirituality on individuals’ health and behaviour.” The theoretical underpinnings of the Christian mindfulness intervention are explored in the final section of this chapter. Appendix B has a detailed description of the Intervention Protocol for the Christian mindfulness intervention with its three components. Appendix C contains a description of the

contents of the life skills training, results of which were used to compare against the outcome of the mindfulness intervention. Measures were repeated on all three groups after the intervention that had lasted ten weeks. However, the average time-lapse between test and retest could be estimated as three months. This is because, though the retest was taken on the same day by all the participants in the intervention phase (n=71), the gathering of data in the questionnaire phase (n=504) took almost two months.

Within the epistemological paradigm of hermeneutical realism, two case studies were carried out. The effects of Christian mindfulness might not be sufficiently quantified; therefore, a qualitative method was sought so as to shed more light on the experience of the participants. As Yin (2003) proposed, a case study approach often serves to fill the gap in methodology. Moreover, they could serve as tools for meta-reflection on the evidence that emerges from quantitative data (Leedy, 1997).

Quantitative data from the intervention design provided a 'snapshot' of the process, whereas the case studies helped to understand the process at its various stages and to pick up elements (particularly hidden variables) that were in play. Therefore, the type of case study employed in the present study can be considered an 'instrumental case study' (Willig, 2001). It was also an 'embedded multiple case study' inasmuch as it used various sources of data comparing the experience of two participants. Generally, the case study approach may be limited by the subjective interpretation of the researcher, and the findings might be difficult to replicate (Hayes, 2000). Despite this limitation, qualitative methods keep the researcher close to the participants of the study given the religious and cross-cultural context of the intervention (Belzen, 2010).

4.2. Assessment Instruments

The quantitative data were collected by means of a set of paper-and-pencil, self reported, standardized measures (the questionnaire has not been included among the appendices due to copyright issues). The choice of the instruments was based on the following criteria: consistency with the theoretical framework, good reliability, not too demanding, and suitability for the African sample. The VIA-IS was chosen given the theoretical framework for the study and the lack of other instruments to assess all character strengths. And since the VIA-IS has 240 items, other instruments had to be as short as possible. The following section reviews the set of measures of the independent variables, dependent variables and control variables. Table 4.1 lists the instruments together with their reported reliability Cronbach's alpha.

Independent Variables:

Values in Action - Inventory of Strengths (VIA-IS)
Multidimensional Inventory for Religious/Spiritual Wellbeing (MI-RSWB 48)

Dependent Variables:

The Alcohol Use Disorders Identification Test (AUDIT)
The Sexual Addiction Screening Test (SAST)
Compulsive Internet Use Scale (CIUS):

Control Variables:

BriefCope
The Hospital Anxiety and Depression Scale (HADS)

	Measure	Items	Average Reliability α in validated scales
IV1	VIA-IS (Peterson & Park, 2009)	240	.70
IV2	MI-RSWB 48 (Unterrainer et al., 2010).	48	.88
DV1	AUDIT (Barbor et al., 2001)	10	.94
DV2	SAST (Carnes, 1989)	25	.89
DV3	CIUS (Meerkerk et al., 2009)	14	.89
CV1	BriefCope (Carver, 1997).	14	.50 to .90
CV2	HADS (Zigmond & Snaith, 1983)	14	.80
	Total number of items	365	

4.2.1. Values in Action - Inventory of Strengths (VIA-IS)

The VIA-IS (Peterson & Park, 2009) is a 240-item scale that measures the 24 character strengths of the Values in Action (Peterson & Seligman, 2004). The inventory is normally administered online. However, for the sake of easy accessibility a paper and pencil version of the survey was used in the present study with due permission from The VIA Institute of Character Strengths, Cincinnati, Ohio, U.S. The items request the participant to answer each statement in relation to “whether the statement describes what you are like”, and responses are based on a five point scale (1=very much unlike me; 5=very much like me). Usually the online version generates the top five “signature strengths” for the participant. The character strengths with sample items from the VIA-IS have been described in Chapter 2 of this dissertation.

Reliability and validity values of the VIA-IS have been reported as follows (Linley et al., 2007; Park, Peterson, & Seligman, 2004; Peterson, Park, & Seligman, 2006):

- (a) Reliability value in Cronbach's alpha for all subscales is high ($\alpha > .70$). One recent study (Shryack, Steger, Krueger, & Kallie, 2010) reported an even higher mean Cronbach's alpha ($\alpha = .81$).
- (b) Stability in terms of test-retest correlations over four months is reported to be good ($r > .70$) (Peterson and Seligman, 2004, p.631);
- (c) Scale scores are usually negatively skewed but show variation (mean range from 3.5 to 4.0; SD range from .5 to .9);
- (d) The correlation expressed in self-nomination of strengths by participants and those produced by the scales is substantial ($r = .5$);
- (e) Validity expressed by rating by friends or family members of a participant's top strengths correlate moderately ($r = .3$).

This measure has previously been used among international samples. In one such study samples were drawn from 54 nations, including four in the African continent (Park, Peterson, & Seligman, 2006). However, it is important to note that these results are based on online data, which could be largely from self-selected samples, and the samples from the African nations were very small (Central African Republic, $n=32$; Nigeria, $n=24$; South Africa, $n=323$; Zimbabwe, $n=21$).

4.2.2. Multidimensional Inventory for Religious/Spiritual Wellbeing (MI-RSWB 48)

This scale measures six dimensions of religious wellbeing: general religiosity, forgiveness, hope-immanent, hope-transcendent, connectedness, and experience of sense and meaning. Each dimension has eight items creating a total of 48 items in the scale (Unterrainer, Ladenhauf, Moazedi, Wallner-Liebmann, & Fink, 2010). These dimensions could be broadly described in the following terms. Table 4.2 lists the variables and their corresponding items.

- *General religiosity*: This dimension includes belief in God, who is merciful, with whom one is able to converse with a feeling of closeness, and thus experience contentment, security and trust in God's help. It also presupposes attendance in communitarian religious events, and the recognition of the presence of God in nature.
- *Forgiveness*: The items here are straight-forward; they measure willingness to forgive, absence of hate, avoidance of revenge, and wishing well of enemies.

- *Hope-immanent*: It implies having a clear picture of the future and expecting positive experiences, and the anticipation to live as one envisages life. It includes a sense that life is moving in the right direction; if it is not the case, being certain that at least things will improve in the future. In simple terms, it consists in being optimistic that the future is going to be exciting.
- *Hope-transcendent*: While Hope-immanent is focused on the present life even if it is about the future, Hope-Transcendence is about the after-life. It consists in the recognition of the transience of this life, together with the hopeful acceptance of life after death, and an experience of hope that emerges from the possibility of being remembered after death.
- *Connectedness*: Experience of the feeling of being absorbed into something greater, for instance, being reborn after death, feeling of supernatural connection with some people, experience of the ineffable, and belief in existence after death.
- *Experience of sense and meaning*: This dimension is about the experience of authentic feeling, including that of deep affection and true friendship. This also takes into account a sufficient grasp of the meaning of life. It includes deep experiences of openness & honesty, and occasions of being absorbed in something to the point of forgetting things around you.

Dimensions	Items
General Religiosity (GR)	1,7,13,19,25,31,37,43
Forgiveness (FO)	2*,8*,14*,20*,26*,32*,38*,44
Hope Immanent (HI)	3,9,15,21,27,33,39*,45
Connectedness (CO)	4,10,16,22,28,34,40,46
Hope Transcendent (HT)	5*,11*,17*,23*,29*,35*,41*,47*
Experiences of Sense and Meaning (SM)	6,12,18,24,30,36,42,48
Note: *= reversely coded	

Cronbach's alpha (α) for the RSWB in several studies in the original German version has been between .88 and .89 (Unterrainer et al., 2010). Very similar alpha (α) levels have been reported for the English version, ranging from .75 to .96 (Unterrainer, Nelson, Collicutt, & Fink, 2012). Significant positive correlations are also reported for six MI-RSWB subscales. This measure has previously been used in the context of addiction research, though it has not yet been used among a non-European sample. The selection of the MI-RSWB was prompted by the similarity between the six dimensions and character strengths that are relevant to addiction and recovery. In addition, it served as a measure of religiosity and spirituality.

4.2.3. The Alcohol Use Disorders Identification Test - The Self-Report Version (AUDIT)

AUDIT was developed by the World Health Organization (WHO) as a simple tool of screening for excessive drinking (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). AUDIT has several versions of measures. The one used for the current research project is a self-report version that has 10 items. The ten items are grouped into three subscales:

- Q1 to Q3 measure alcohol consumption;
- Q4 to Q6 measure alcohol dependence;
- Q7 to Q10 measure alcohol-related problems.

The first eight items are scored in a five-point Likert scale (from 0 to 4). The five points have varied interpretations across different items. Items 9 and 10 are scored in a three-point scale (scores of 0, 2, and 4). The AUDIT was developed as a simple tool for the early detection of hazardous and harmful alcohol use in primary health care settings (Saunders, Aasland, Babor, De La Fuente, & Grant, 1993). Potentially, the range of total scores can be 0 to 40. In the present study, a total score of 15 was considered as the cut off point for recruiting participants to the second phase. This group consisted harmful and dependent users of alcohol. That is, a score of 16 to 19 is expected to show harmful use of alcohol, and scores above 20 indicate likely alcohol dependency.

“Harmful use refers to alcohol consumption that results in [negative] consequences to physical and mental health. Some would also consider social consequences among the harms caused by alcohol” (Babor, Campbell, Room, & Saunders, 1994). Harmful use is beyond hazardous or risky drinking (the latter category is measured by points from 8 to 15 for males, and 7 to 16 for females in the AUDIT).

As regards the psychometric properties of the AUDIT, generally, high internal consistency of the scale has been reported “suggesting that the AUDIT is measuring a single construct in a reliable fashion” (Babor et al., 2001, p.13; see also Reinert & Allen, 2007). In one study among 400 incarcerated, drug-using women in the U.S., for instance, the internal consistency was very high ($\alpha = 0.94$; El-Bassel, Schilling, Ivanoff, Chen, & Hanson, 1998). Similarly, an internet based evaluation of the test-retest reliability for the AUDIT showed good total scores on the three subscales taken together, but lower reliability for the dependence subscale when evaluated separately (Miller et al., 2002).

The AUDIT was developed as a cross-cultural screening tool (Donovan & Marlatt, 2005), and has been validated across nations. Two items in the test require adaptation according to national measures of units of drinking and types of drinks available in the market. Incidentally, the original samples used in the development of the instrument included participants from Kenya (Saunders, & Aasland, 1987). Therefore, it provided greater confidence for use in the present study among young adults in Kenya.

4.2.4. The Sexual Addiction Screening Test (SAST)

Patrick Carnes (1983) has carried out elaborate studies on patterns in sexual addiction and recovery. He has also developed the Sexual Addiction Screening Test (SAST) to assess sexually compulsive or addictive behaviour (Carnes, 1989). More recently (Carnes, Green, & Carnes, 2010), SAST has been modified as SAST-R to allow greater flexibility to reflect differences in gender and sexual orientation. However, the SAST itself has provided high reliability alpha among women ($\alpha = .85$), homosexual men ($\alpha = .82$), and heterosexual men ($\alpha = .89$; Carnes, Green, & Carnes, 2010). Moreover, the SAST-R is a longer measure, with more complex sub-scales, and is very explicit about sexual orientation which could have put off the African participants. Therefore, in the present study, the original version of the SAST was included.

The SAST has 25 questions requiring 'yes' or 'no' answers; 13 or more positive answers would exhibit sexually problematic behaviour. The questions relate to various aspects of sexual addiction including childhood abuse (item 1), spending resources (item 2), family history (item 3), preoccupation (item 4), feeling bad and dubious, and wanting to put away the practice (items 5, 6, 8, 11, 16, 17, 18, 21), loss of self-control (item 7, 24, 25), adverse effects on self and others (items 9, 10, 12, 22), taking greater risks including breaking the law (items 13, 23) continuation of the act despite adverse consequences (items 14, 15) using sex as escape (item 19), and experience of shame and depression as a result of the act (item 20).

The measure was originally normed by comparing the scores of middle class American males who self-identified as either being sexually addicted or not sexually addicted. There is a possibility of a minimal amount of false positives (up to 3.5%) in the results, that is, people with no compulsive behaviour might be identified as having one. While Carnes (1989) estimated that 3% to 6% of the general population would

endorse more than 13 items, Marshall and colleagues (2008) in their study among a sample of lower socio-economic status, have shown a prevalence of 17.9%. In another comparative study carried out in the US and Botswana (Mmidi & Delmonico, 2001) among the American sample 2% endorsed more than 13 items, while in the Botswana sample 21% endorsed more than 13 items. The reasons for the variation could be attributed to socio-economic status and difference in culture. This needs further exploration. For the purposes of the present study, it was sufficient to be aware of these variations in prevalence.

Generally, the scale shows a one-factor structure. The internal consistency of the instrument was measured by Cronbach's alpha and found to be 0.92 for male addicts, 0.85 for non-addict men, and 0.92 for combined groups (Carnes, 1989). One study involving a sample of college student males reported an alpha value of .66 (Abell, Steenbergh, & Boivin, 2006). However, more recent studies have supported stronger internal consistency, and the single factor structure has also been endorsed (Nelson & Oehlert, 2008; Marshall & Marshall, 2010).

4.2.5 Compulsive Internet Use Scale (CIUS)

As it has been discussed in Chapter 3 on page 90, compulsive internet use may not be considered as an addictive disorder but only as a behavioural addiction. There are many who suggest that compulsive internet use needs attention within addiction research (Young, 1998; Davis, 2001; Caplan, 2002; Wang, 2001; Yang, Choe, Baity, Lee, & Cho, 2005; Meerkerk, 2007). Compulsive internet use was included as a dependent variable in this study in order to assess the impact of spirituality in a spectrum of addictive behaviour that cuts across alcoholism, sex addiction and internet addiction. There are several instruments now available to measure compulsive internet use (Ko, Yen, Chen, Yang, Lin, & Yen, 2009). In this study, the Compulsive Internet Use Scale (CIUS; Meerkerk, 2007) was employed. The instrument contains 14 items scored on a 5-point Likert scale. The cut off point is 28 out of a maximum of 56.

Components measured in the CIUS show great concordance with the criteria for addiction set out in DSM-IV and ICD-10: loss of self control (items 1 to 3), adverse effects on the self (items 4 and 5), craving (items 6 and 7), inability to stop despite wanting to stop (items 8 and 9), spending more time to the detriment of other responsibilities (items 10 and 11), using the internet to escape from negative feelings (items 12 and 13), and feelings of depression when unable to use (item 14). Reliability

scores of the measure have been reported to be high in many studies with an average Cronbach's alpha of .89. The instrument showed good factorial stability across time and across different samples. Its external validity has been demonstrated by a high correlation with concurrent and criterion variables (Meeker et al., 2007).

4.2.6. BriefCope (Carver, 1997)

BriefCope is a shorter version of the Cope Inventory (Carver, Scheier, & Weintraub, 1989). The Cope Inventory has 15 conceptually distinct scales with 4 items for each scale. These scales represent three sets of dimensions in coping: problem-focused coping, emotion-focused coping and coping responses. Some of these scales represent maladaptive but functional strategies, others represent dysfunctional strategies, and still others adaptive functional strategies. The theoretical framework of the scale is drawn from previous work on stress and coping, particularly that of Folkman and Lazarus (1984). The internal consistency of the Cope Inventory in terms of Cronbach's alpha reliability coefficients were acceptably high, with only one falling below .6.

BriefCope (Carver, 1997) omits two subscales of the Cope Inventory and adds one subscale, with 2 items on each of 14 scales that include both potentially dysfunctional as well as adaptive coping responses: active coping, planning, positive refraining, acceptance, humour, religion, using emotional support, using instrumental support, self-distraction, denial, venting, substance use, behavioural disengagement, and self-blame. Each item states a strategy and the participant responds in a 4-point Likert scale, where, 1 = I haven't been doing this at all; and 4 = I've been doing this a lot.

The alpha reliabilities of the scales for the population of 294 participants involved in the validation study ranged from .50 to .90, with only three falling below .60. A factor analysis yielded a structure generally consistent with the original version of the Cope. The factor structure is not entirely consistent with the 14 scale structure, but the scale structure is justified by a combination of theoretical constructs and factor structure (Carver, 1997; Carver, Scheier, & Weintraub, 1989). The author permits the use of "all scales of the BriefCope, or to choose selected scales for use", and suggests not to measure coping strategies in terms of 'problem focussed' or 'emotion focussed' aggregates, or to combine them to an 'overall' coping index. He recommends that each scale be treated "separately to see what its relation is to other variables."

For the present study, the following scales were chosen: religion (items 1 & 8), active coping (items 2 & 9), use of emotional support (items 3 & 10), use of instrumental support (items 4 & 11), positive reframing (items 5 & 12), planning (items 6 & 13), and acceptance (items 7 & 14). Among these seven scales (14 items), the data from the scales that showed high reliability were chosen for analysis. The reason for including coping strategies as a set of control variables in the present study was that coping is considered highly relevant in addiction research. To begin with, substance misuse is seen as a coping strategy, albeit a maladaptive one (Carver, 1997), or it is suggested that addiction is a result of inadequate coping styles (Min & Yang, 2006), and coping intervention, including meditation, is seen to be an effective alternative to addiction treatment (Carlson & Heather, 2009). In the present study, it was envisaged that if the results showed that the participants who are identified as having an addictive problem have adequate scores in the coping scales then it could show that there are other variables that were in play, for instance, character strengths.

4.2.7. The Hospital Anxiety and Depression Scale (HADS)

The HADS (Zigmond & Snaith 1983) is a 14-item self-rating assessment tool that has two subscales with seven items each, measuring anxiety and depression separately. The items within the two subscales are alternatively arranged. Each item is scored in a 4-point Likert scale, scoring from 3 to 0. Each score is described in expressions such as ‘most of the time’ (scoring 3) and ‘not at all’ (scoring 0). Some items are reversed with no clear pattern in such a way that the participant is forced to read carefully every item with its corresponding description of numbers. Participants are requested to give an immediate response and not to think too long about their answers. The total scores for each subscale can range from 0 to 21. Scores from 0 to 7 indicate normal range; from 8 to 10 show borderline risk; and from 11 to 21 indicate risk of an abnormal level of anxiety or depression.

Originally designed as a screening device for use in medical outpatient clinics, as its name suggests, the HADS has now become a popular instrument among a variety of population. Its popularity could be due to its brevity, internal consistency, and good reliability and validity scores. A review by McPherson and Martin (2011) suggested that HADS is likely to be a suitable screening tool for an alcohol-dependent population. It is also said to be effective for use among the general population, with no effect of increased distress or anxiety as a result of answering the questionnaire (Bjelland, Dahl, Haug, & Neckelmann, 2002). Generally, the Cronbach’s alpha for reliability range from 0.71 (Karimova & Martin 2003) to 0.90 (Herrero et al., 2003). The average Cronbach’s alpha is 0.80.

4.3. Participants

Prior to the actual data collection, a pilot study was carried out among 25 participants in Nairobi. It showed that the participants were able to understand the items on the questionnaire, which they completed in an average time of 50 minutes, and no personal distress was reported. Hence the main study was undertaken as planned. The participants for the survey were drawn from among young adults in university colleges and youth groups in the city of Nairobi, Kenya (see Appendix E). Young adults, aged between 18 and 30, became the target for this study for several reasons: a) almost 75% of the population of Kenya is below the age of 30 while the global percentage of the same population group is 52% (Qualman, 2012); b) addictive behaviour is likely to be more prevalent among this age-group (Becker & Murphy, 1988); and c) character strengths might be more malleable in this phase of life (Peterson & Seligman, 2004, p.549). The participants were recruited through, the departments of social sciences in universities, Non-Governmental Organisations (NGO's) in slums, and church based youth groups. The rationale for the data collection being extended to locations outside university colleges was that only 3% of the age-group eligible for university studies is actually enrolled for university education (Kenya National Bureau of Statistics, 2009). Therefore, a sample of only university students in Kenya is likely to be highly unrepresentative of the age group. However, the participants had to have finished at least Form-4 level of education. Form-4 is the level of education before entry into university in Kenya (one year short of completing AS in England). This was also meant to ensure a good level of English language skills among the participants, for them to be able to understand the questionnaire. It is important to note that, in Kenya, the 12-year school-based education is carried out in English language. Due to lack of population lists, convenience sampling was used for the selection of the specific locations for the survey. In academic institutions, the students were requested to complete the questionnaire during a free hour, or they were allowed to take it home to complete and return the next day. In religious and NGO locations, the questionnaires were administered during scheduled meetings of the youth groups. Participation was on a voluntary basis.

The questionnaire had a section requesting those willing to participate in the intervention phase of the study to provide their contact details. Those invited for the second phase of the study were Christian participants who had scored above the cut-off point on one of the addiction measures. Those who had provided their contact details (n = 108) were invited, and 77 of them responded. They were grouped into three groups, controlling for age and gender. Some adjustments were needed in the assignment of participants into groups taking into consideration their availability for the 10-week voluntary intervention. Some of those who were not available for the full duration were assigned to the control condition. Figure 4.1 describes the sampling process.

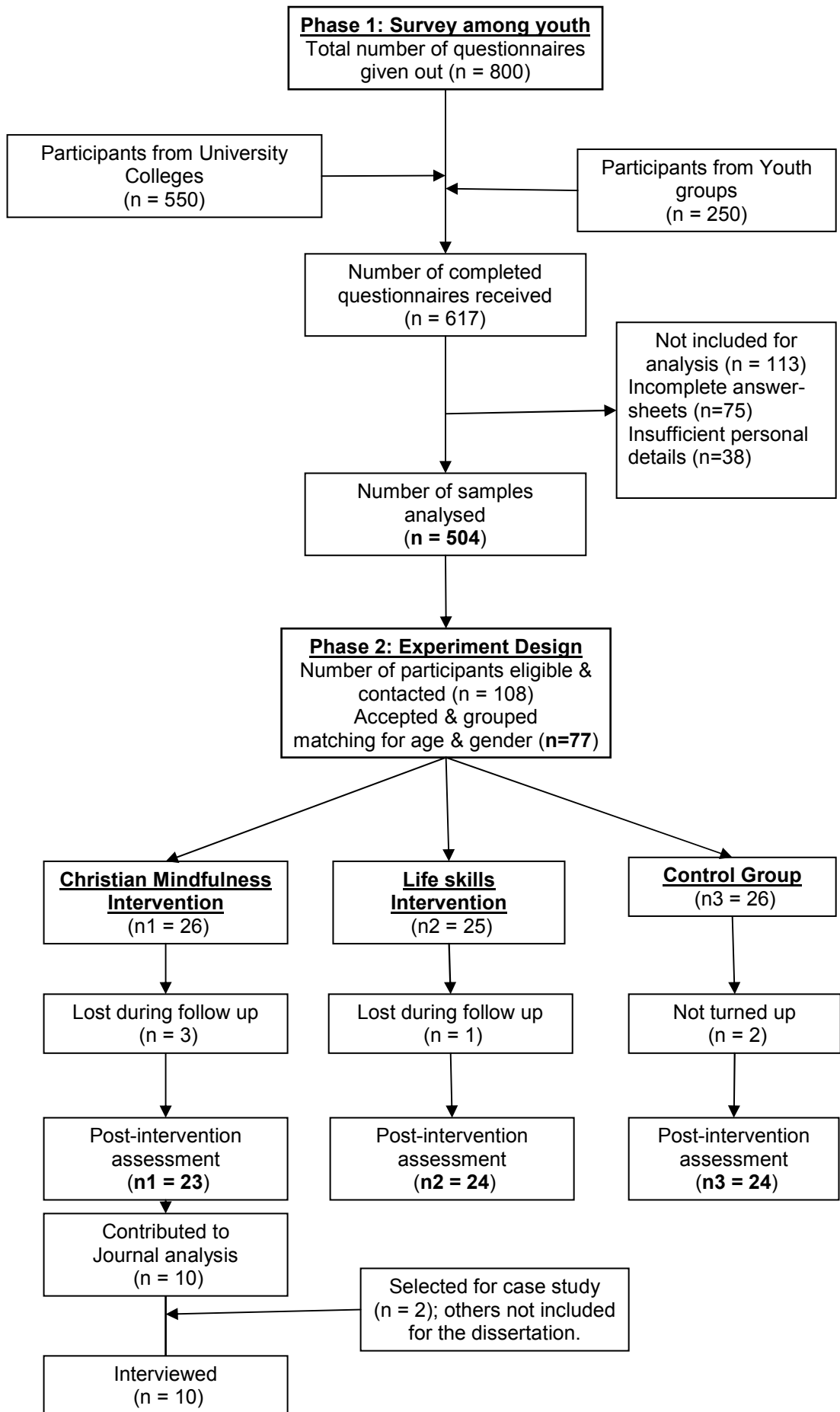


Figure 4.1. Summary of sampling process

4.3.1. Demographic details of the participants in the survey (n=504)

For the first phase of the empirical study, data from 504 participants (47.4% male; 52.6% female) were analysed. The mean age of the participants was 22.6 (SD = 2.9; range from 18 to 30). For more details about the age and gender, see Table 4.3. As regards their educational background, 63.7% of the participants were Form-4 leavers; it is possible that some of them were pursuing undergraduate studies during the time of survey. Another 35.1% claimed that their educational background was undergraduate degree or diploma level; this could include some who were actually doing these studies at the time of survey; others were pursuing postgraduate degrees (1.2%).

Age	Gender		Total	Percent
	Male	Female		
18-20	44	67	111	22.1%
21-23	110	123	233	46.2%
24-26	49	54	103	20.4%
27-30	36	21	57	11.3%
Total	239	265	504	100%
Percent	47.4%	52.6%	100%	

The majority of the participants were Christians (55.9% Catholics; 35% Other Christian churches; 9.3% were Muslims). The large number of Catholics in the sample could be attributed to the convenience sampling process targeting some Catholic church-based groups (28.1% of the total sample). However, the religious affiliation of the participants is nearly representative of the general population of Kenya (Protestant 45%, Roman Catholic 33%, Muslim 10%, indigenous beliefs 10%, other 2%; World Fact Book, 2012).

Of those who responded to the item on their marriage status (n=491), most of them (88.3%) identified themselves to be single or unmarried; 9.5% reported to be married, 1.5% living with a partner, and 0.7% separated or divorced. Regarding their economic status, 64.1% of participants came from families whose monthly income was below £200 (Ksh. 20,000). Only 4.7 % came from families that had income more than £1000 (Ksh. 1m). Since there was a measure for compulsive use of the internet in the survey, two questions regarding owning a laptop and using the internet were included. 17.3% of the participants own a laptop, and 14.9% are online most of their waking

hours. The percentage of participants owning a laptop and being online was proportionately distributed across all income brackets.

4.3.2. Profile of the participants in the intervention (n=71)

Table 4.4 describes details of those who responded positively to the invitation for the intervention phase, and those who completed it. Though in the first phase there were more young women filling in the questionnaire, there was some reluctance on their part to participate in the second part. This could have been contributed by the fact that women in Nairobi might have less access to internet and mobile phones (media used to communicate with them by the researcher) as compared to young men. Table 4.5 shows details of participants in the intervention conditions. The majority of participants who had scored above the cut off point in any addiction measures had done so in the compulsive use of the internet.

	Mean Age	N	Female	Male	CIUS SCORE Mean	AUDIT SCORE Mean	SAST SCORE Mean
Mindfulness Condition	22.0	26	12	14	31.16	5.32	7.12
Life-skills Condition	22.0	25	12	13	30.12	4.28	9.76
Control	22.1	26	13	13	33.39	5.55	6.23
Total		77	37	40			

	Mean Age	N	Female	Male	CIUS SCORE Mean	AUDIT SCORE Mean	SAST SCORE Mean
Mindfulness Condition	22.2	23	10	13	32.39	5.22	7.26
Life-skills Condition	21.9	24	12	12	29.67	4.04	8.38
Control	22.2	24	12	12	30.79	4.25	7.67
Total		71	34	37			

	CIUS 28 out of 56		AUDIT 15 out of 40		SAST 13 out of 25	
	Male	Female	Male	Female	Male	Female
Mindfulness Condition	9	8	2	3	4	3
Life-skills Condition	8	10	2	3	4	4
Control	9	10	3	2	3	2
Total	54		15		20	

4.3.3. Description of the participants in the case studies

The two participants for the case studies were selected on the basis of the following criteria: first, to balance gender a male and a female participant were chosen; secondly, the male participant had shown an extreme case of recovery from alcohol misuse (from 30 points to zero) but no substantial change in internet use; the female participant had demonstrated a decrease in alcohol misuse, going below the risk level, but a slight increase in internet compulsive use going beyond the threshold. Additionally, she showed an increase in sexual addiction score, but remained below the cut off point. Thirdly, these two participants were among those who provided the maximum amount of information for the study by way of completed questionnaires, interviews, journals and email communications. Therefore, the two cases were chosen “on purpose” to add data to the second research question of the study.

4.4. Procedure of the Intervention Phase

The Christian mindfulness group (n1=26) was invited to participate in a weekend retreat. The aim of the retreat was threefold: to offer a labyrinth-based intervention on the character strengths; to impart some skills in mindfulness journaling, and to teach the technique of contemplative practice. The intervention is described in details in section 4.5 of this chapter. Generally, the participants spent the weekend in silence (see Appendix D). The key researcher had minimum impact on the intervention itself, as two trainers were with the group to facilitate the intervention with the help of an audio CD and printed handouts. The transcription of the contents of the audio CD is presented in Appendix B. The trainers had had some previous experience in leading youth retreats. In preparation for the present study, they spent two weekends together in a retreat-centre, during which time they were taken through the contents of the training manual (Appendix B) by the key researcher. During the intervention, the participants were provided with the audio CD for the continued practice of Christian contemplation. They were also asked to make journal entries as many times as possible during the week, and to continue private practice of Christian contemplation for about 20 minutes daily. Following the weekend retreat, the participants came together for weekly common practice that lasted 90 minutes, for nine consecutive Saturdays. On the ninth Saturday, the participants completed the questionnaire. Journal entries were collected

from among 10 participants of the mindfulness group; and 10 participants were also interviewed. The data from the journals and interviews are not used for the present dissertation; however, the two case studies were built based on this set of data.

The life skills group (n2=25) was also invited to participate in a weekend training on life skills, and 90 minutes of weekly trainings for nine consecutive Saturdays. The key researcher had minimum impact also on this intervention, as two facilitators administered the training. The description of the contents of the life skills training is included in Appendix C. The two facilitators came from an organisation that runs training programmes for youth. The control group (n3=26) had no interventions. This group was included to control for the effect of the time-lapse and practice-effect. The control group joined the other two groups on the last Saturday to complete the questionnaire.

The participants were given travel allowance for the weekly sessions. They were also told of the possibility of having access to a professional counsellor to deal with issues that could arise during the period of training. However, no one needed this help during the study. On the last day of the intervention all the participants were entered into a draw, and one was given a new laptop.

4.5. Religious Spiritual Intervention: A Christian Mindfulness

The term 'Christian mindfulness' in this project refers to a package of three components: Christian contemplative practice (Jesus Prayer), Labyrinth walking and Mindfulness journaling. It is useful to describe here the principal aspects of the three components. The exploration here is a little more concrete than what was discussed in Chapter 2 on mindfulness. Labyrinth walking was a one-off intervention; the other two were carried out over a period of time (10 weeks). Only the Labyrinth had a direct reference to the selected character strengths, while the Christian contemplative practice and mindfulness journaling had no direct reference to them, that is, there was no discussion or mention of character strengths in the latter two intervention techniques. More specific contents of the intervention protocol have been included in Appendix B. In the present section the three components of the interventions are explained in some detail, summarising available evidence on their efficacy on wellbeing, and pointing out the rationale for their use in the present study. However, before proceeding to do that, it may be necessary to clarify another set of questions: how meaningful is it to use the

term ‘mindfulness’ to refer to this set of interventions? Since mindfulness is claimed to be non-religious, could there be a *Christian* mindfulness? In answer to these questions, I furnish the following points:

- Contrary to many claims, mindfulness does have a religious origin (MHF, 2010). Most scholars acknowledge that it originated in the ‘East’. What these scholars may not acknowledge is that in the East there has not been a clear separation between the secular and the sacred, unlike in the contemporary West, as it has been mentioned earlier in Chapter 2 (see pages 26-27). As an Indian social philosopher, Bhargava (1994, p.1785) puts it, in the East “it is difficult to disentangle the religious from the non-religious.” Moreover, a deeper look at its origins suggests that ‘mindfulness’ is the seventh step of the eightfold path to *nirvana*, suggested by Siddhartha Buddha. Many techniques of mindfulness that have been integrated into psychotherapy (Bowen et al., 2006; Courbasson, Nishikawa, & Shapira, 2011) explicitly use Buddhist techniques of *anapana* (awareness of breathing), *vipassana* (awareness of body sensations). Other techniques of mindfulness integrate breathing exercises borrowed from the Yoga tradition, which has its roots in Hinduism (MHF, 2010). The Buddhist and Hindu mindfulness practices have a religious agenda: to liberate the *atman* - the individual soul, which, on account of *karma* – the effect of one’s actions in the past life, is in bondage of *samsara* - cycle of rebirths (Wynne, 2007). Therefore, mindfulness in its origins may not be non-religious, after all.
- In the present study, ‘Christian mindfulness’ is used to refer to a package of three components that include mindfulness (journaling) and contemplative (Jesus Prayer) dimensions. Labyrinth intergrats both the dimensions. In contemporary scholarship, the relationship between mindfulness and contemplative practice is not clear cut. Most studies consider mindfulness as one type of contemplative practice (Grace, 2011; McGarrigle & Walsh, 2011; Nanda, 2009). Others do not make a distinction between the two (Bien & Bien, 2002). Several authors have favourably compared mindfulness to Christian contemplative practice (Holland, 2006; Molleur, 2009; Nanda, 2009).
- In general, the term ‘mindfulness’ refers to practices that induce silence, awareness, attention, relaxation, being in the present, and letting go of judgement (Jon Kabat-Zinn, 1994; Shapiro & Carlson, 2009). As it will be described below, it is supposed that the three components of Christian mindfulness also facilitate peaceful silence, focussed awareness, relaxed attention, and being in the present.

- However, mindfulness is not to be taken simplistically as ‘emptying the mind’ (Bien & Bien, 2002). Many contemporary practices of mindfulness use also techniques such as loving kindness exercise (Tirch, 2010), which have an affective content. These techniques are said to promote compassion (Wallace, 2001). Similarly, the Christian mindfulness as used in this study invites the participants to be aware of their affective state. One of the components (Jesus Prayer) of the intervention focuses on relationship with Jesus through a repetition of a ‘mantra’. It is important to note that the other two components (journaling and labyrinth) do not have an explicit Christian content. Moreover, some of the mindfulness techniques practiced by Buddhism, particularly the Zen and the Tibetan traditions, have a similar dimension of relationship with the Buddha, or Bodhidharma, or a personification of *Bodhisattva*. For example, one such technique involves the visualization of the Buddha and the recitation of mantra (Roney-Dougal & Solfvin, 2011; Wallace, 1998).
- The practice of Christian mindfulness needs to be considered also within the theoretical framework of religious-spirituality that was proposed in Chapter 2. The multidimensional matrix of religion and spirituality suggested a both/and model, within which the present study is situated.
- Moreover, the term, ‘Christian mindfulness’ is already being used within academic literature (Schiffhorst, 2010), mostly in reference to silence and awareness (see also Heffern, 2000). There is also an ongoing academic exploration on the relationship between Christian contemplative practices and mindfulness, often suggesting integration (Tan, 2011; Vandenberghe & Prado, 2009). The present study intends to contribute to this ongoing discussion.

4.5.1. Component 1: A Christian contemplative practice (Jesus Prayer)

Christian contemplative practice refers to certain practices of praying that involve silent, mostly individual, awareness-based, God-focused techniques. It is different from communal liturgical worship, and the individual prayers in its various forms (petitions, praise and thanksgiving, penitential invocations) that are common in Christian traditions. It is also subtly different from Christian meditation that basically involves a “discursive reasoning process” (Hall, 1988, p.9). Contemplative prayer transcends the thinking and reasoning of meditation, and to some extent, even the emotional and feeling aspects. It can be described in terms of silence, presence, and awareness. Phrases like “loving gaze,” and “knowing beyond knowing” (Hall, 1988,

p.9), are often used to elucidate the dynamics of contemplation. Finney and Malony (1985a) offer a definition that shows a similarity to the definition of mindfulness, while being different from it:

Contemplative prayer can be defined as a particular form of Christian prayer in which one gives one's full attention to relating to God in a passive, non-defensive, non-demanding way. It is a patient waiting on God to deepen one's confidence in God's power and love. Having been made more secure by increased confidence in God, one is freed to love others more unconditionally (p.173).

As it emerges from the above quote what is unique about Christian contemplative practice that distinguishes it from general mindfulness is the explicit belief in a Greater Power – God, who is also someone who offers the possibility of building a personal relationship. In this relationship, faith or spirituality (as understood in positive psychology) is not merely holding a set of “strong and coherent beliefs about the higher purpose and meaning of the universe”, nor is it just having “an articulate philosophy of life, religious or secular, that locates your being in the larger universe” (Seligman, 2002, p.156). These, of course, as discussed earlier in this dissertation, are necessary expressions of spirituality. However, faith, as implied in Christian contemplative practice, includes a willingness to abandon oneself in a relationship with God. In this sense, then, faith also implies love – another character strength in positive psychology. In any case, given the background of mindfulness in Eastern religions some Christians might be reluctant to take up to practice it. Therefore, suggesting Christian contemplation as a possible alternative to mindfulness in therapeutic contexts might offer the freedom for some Christians to enjoy similar benefits. The selection of Christian contemplative practice for this study has also been directed by intellectual curiosity: would Christian contemplative practice exhibit in the practitioners any effect that can be observed in terms of psychology?

There are also various methods of Christian contemplative practice to choose from. The most popular ones are the Jesus Prayer (Barrington-Ward, 2007; Goettmann & Goettmann, 1996; Ware, 2000), *Lectio Divina* (Hall, 1988), Ignatian contemplation (Smith, 1989), and various other derivatives of these, including the Centering Prayer (Main, 1988; Merton, 1973; Pennington, 1980). Some of these, and other recent efforts, have also attempted to combine the Eastern techniques of meditation or mindfulness with Christian contemplative practices (for instance, De Mello, 1984). Our focus here is on the Jesus Prayer. It originated in Egypt in the 3rd Century CE among the earliest groups of Christian monks, popularly known as “Desert Fathers and Mothers”. *Lectio*

Divina, on the other hand, has a strong Benedictine tradition coming from the 6th century CE. While the Jesus Prayer and its earlier forms consist in repeating short invocations, *Lectio Divina* uses longer passages from the Scriptures. For various historical and theological reasons the contemplative methods of prayer largely fell into disuse, except among members of religious orders, in the Western Christian traditions beginning in the 12th Century. The decline of the use of the Jesus Prayer in the West, for instance, could have been due to the East-West Schism of the 11th Century, and the theological debates around Mount Athos (Toti, 2008).

Without dwelling much on the history of Christian contemplative practice, I will describe the method that was used in this research project on the psychological study of addiction and recovery, and point out the rationale behind the method of the Jesus Prayer in relation to positive psychology. However, in trying to understand the wisdom behind the details of this practice, it is necessary to look at some history. Finally, I will review some of the psychological studies that have used Christian contemplative practice in various contexts to promote wellbeing. A verbatim script of the audio CD used for the intervention is included in Appendix B.

Salient Elements in the Proposed Method

The Posture: The significance of the appropriate posture in the Jesus Prayer, understood here not only as a physical posture but also as a mental disposition, is best captured in the term, ‘Hesychasm’ or ‘Hesychast’; the latter term refers to the person who practices this technique. The word ‘Hesychasm’ has been used to refer to contemplative practice in the Christian tradition from the fourth century. Notable personalities in its origin were John the Chrysostom (c.347-407) in Constantinople (present day Istanbul), and Evagrius Pontikos (c.345-399) representing the Desert Fathers and Mothers of Egypt. From the 13th and 14th centuries the term took on a more precise reference to the Jesus Prayer, and became almost like a mystical movement at Mount Athos in Northern Greece (Toti, 2008), albeit with some theological controversies within the Christian traditions. The use of ‘Hesychasm’ at this stage also referred to the psychophysical technique that involved some specific body postures and breathing patterns (see Goettmann & Goettmann, 1992). *Philokalia*, a classic collection of writings from this era, describes in some detail the posture suitable during contemplative practice. Symeon (949-1022), a Byzantine monk, offers directions on the manner of saying the Jesus Prayer that included lowering the head and staring at the navel, which was dismissed by some critics as, ‘navel-gazing’ (Smith, 2006, p.124). In

any case, the posture itself was considered to be secondary. At the core, however, were solitude (isolation from activity), stillness (physical posture), and silence (inner disposition) (Ware, 2000). '*Hesychia*', in Greek, simply means, "inner silence" or "inner stillness" (Vlachos, 1991). The inner stillness is also seen as an outcome of the absence of imagination and discursive reasoning during the contemplative practice. Even emotions are looked at in a detached manner. It is in these aspects that the Jesus Prayer most resembles mindfulness. The intervention in this project recommended that the practitioner be seated in a comfortable posture, sitting straight and relaxed. Sitting straight and having the feet firmly on the ground facilitates stillness for a prolonged period. This embodied stillness is capable of inducing an inner disposition and an attitude of non-judgmental openness (Bazzano, 2010).

Breathing: The inner silence is facilitated by a focus on breathing. It is probable that the exercise of breathing began to be combined with the Jesus Prayer at least starting from the time of John Climacus in the seventh century. Climacus said, "When you unite the memory of Jesus with your breathing, then you will know the benefit of *hesychia*" (Barrington-Ward, 2007, p.47). Breathing acts as an anchor in the endeavour to be attentive. However, for attention to be effortless and relaxed, breathing is not to be purposely manipulated. When the practitioner begins to pay attention to breathing, particularly when seated without movement, usually a rhythm is spontaneously established. Some recent writers have tried to theologize on the act of breathing, relating it to the breath of the Spirit, '*ruah*,' in Hebrew (Goettmann & Goettmann, 1996). Most of the mindfulness techniques involve some breathing exercises. There is even a Mindfulness Based Breathing Therapy (MBBT; Mularski et al., 2009).

Prayer Beads: The use of different forms of prayer-beads or prayer-ropes is common among most known religious traditions of the world (Wiley & Shannon, 2002). They are generally used in repetitive prayers, or *mantras*, as they are referred to in religions of Indian origin. The purpose of the beads is to count, but they also act as an additional anchor for attention. The earliest use of prayer beads can be traced to Hinduism. They are referred to as *Japa-Mala* with 108 beads, and they are used to chant the holy names of deities, or for the repetition of simple mantras, but generally for the purpose of concentration. Similar use is also observed in Buddhism especially in the Tibetan tradition. The *Tasbeih* with 33 or 99 beads is used by the Muslims to repeat the 99 names of God. Prayer beads are also used in Sikhism, the Baha'i Movement, and the ISKCON (Hare Krishna Movement). Though the rosary as a Marian devotion in the Catholic tradition may be traceable to the 13th century, the use of knotted cord as a tool

for counting during prayer in the Christian tradition has been in vogue since the third century (probably from the time of St Antony of Egypt). The cord with a hundred knots was used as part of the Jesus Prayer in Egypt and later in the Russian Orthodox Church (Barrington-Ward, 2007).

In the present study the prayer beads were used as an anchor to aid the practitioner to get back to concentration, when they realise that they are distracted. It could act also as a motivator for attention: “let me concentrate for the next set of beads!” Moreover, since it involves a tactile experience that is almost effortless, the movement of the beads in one’s fingers might provide a sense of grounding – being here and now; together with the breathing and the invocation, the movement of the beads could help in bringing the whole person to the contemplative practice.

The invocation: The repetition of the invocation offers the possibility for the Christian to practice the injunction of St Paul: “Pray without ceasing” (1The 5:17). St Cassian invited his fellow monks to pray a sentence from Psalm 69: “O God, come to my aid; O Lord, make haste to help me.” In due course, the name of Jesus came to be used. The words suggested in the intervention of this project are “Jesus, Son of the living God, have mercy on me.” There have been various versions in vogue throughout the centuries. The earliest known version used in the 6th century was, “Lord Jesus Christ, Son of God, have mercy on me” (Barrington-Ward, 2007). The 19th century classic, *The Way of Pilgrim* (Anon., 1991) uses yet another version: "Lord, Jesus Christ, Son of God, have mercy on me, *the sinner*." These words are based on two texts from the New Testament. One is from the cry of the blind man in Jericho, “Jesus, son of David, have mercy on me!” (Luke, 18:38); and the other is of the tax collector in the parable of the two men who went to the temple to pray. The tax collector prayed in utter humility, “God, be merciful to me, a sinner!” (Luke 18:13). The suggested version in the present intervention was meant to be short enough for repetition within one cycle of inspiration and expiration.

The use of the name of God or deities is common in repetitive prayers across religious traditions. A popular Hindu mantra, prayed using the *japa-mala*, is “*Om Namah Shivaya*” (I bow to Shiva). In the Buddhist chant of refuge, which is also known as the three jewels of Buddhism, the first invocation is “*Buddham saranam gacchāmi*”, which means, ‘I take refuge in the Buddha.’ ‘Buddha’ here can refer to the historical Buddha, or to enlightenment itself. There is a similar form of prayer known as the Nembutsu, in the Shin Buddhist tradition, that calls on the name of “the Buddha of Immeasurable Light and Life” (Unno, 2002).

In the Judaic tradition, the name of God is not to be uttered (Gen 32:30; Ex 3: 14), therefore God was referred to in the written text as *YHWH*, and when it was

pronounced, it was replaced by words like ‘*Adonai*’, which in Greek came to be translated as ‘*Kyrios*’ or in English, ‘Lord’. In the Christian tradition, certain power and authority is attached to the name of Jesus (Phil 2:6-11) and the ability to pronounce the name itself is considered to be the action of the Holy Spirit in the individual person (1Cor 1:2; 1Cor 12:3). The name ‘Jesus’ is the Greek version of the Hebrew name ‘Joshua’ or ‘Jeshua’, which means, one who saves (Mt 1:21). The word, ‘mercy’ may not always mean, ‘forgiveness for sins’. The Greek word, ‘*Eleison*’ has many Hebrew equivalents; the closest would be ‘*rachamim*’ (also ‘*rachem*’, ‘*rahim*’) which literally means ‘womb’, another equivalent of ‘mercy’ in Hebrew would be ‘*hesed*,’ which means, ‘steadfast love’. Taken together, ‘have mercy on me’ could imply, ‘have compassion on me’, or ‘hold me in your loving-kindness’ (Barrington-Ward, 2007). These backgrounds have made the repetition of the Jesus Prayer popular in the Christian tradition.

Use of Christian Contemplative Practice in Psychological Research

Evidence suggests that repetitive ‘prayer’ has some psychological impact on the person saying it. Bormann and colleagues (2005), in a convenience sample of 62 ambulatory veterans, experimented with *Mantram* repetition. After a 5-week practice (of 90 minutes per week) a significant reduction in the symptoms of stress and anxiety, and improved quality of life and spiritual well-being was reported. In a more critical theoretical essay, arguing from a psychoanalytical perspective, Carroll (1987) suggests that the devotions related to the rosary that “are characterized by an excessive emphasis upon repetition and orderliness, are likely to have an anal-erotic origin” (p.460). This postulation is only theoretical and is in reference to the Marian devotion in the Catholic tradition, and hence may not be relevant to our present discussion. It is important to note that originally, the Christian tradition of repetitive prayer, as with the Jesus Prayer, did not have a direct Marian connotation.

Finney and Malony (1985a) suggest that contemplative prayer may include psychological processes like hypnotic suggestion, a nondirective trance state, and decreased physiological arousal. And these processes might have a positive impact on psychotherapy. This hypothesis was partially supported by a quasi-experimental study carried out by Finney and Malony (1985b). The experiment showed that contemplative prayer increased participants’ level of spirituality, and this in turn improved the effects of psychotherapy. In the same vein, it is important to point out that contemplative practice differs from hypnotic process. Court (1997) considers hypnosis as an altered

state of consciousness that has the following features: focused attention, repetition, disruption of critical thought process, use of imagery, passivity, trusting relationship, heightened suggestibility, physiological changes, and demand characteristics (a situation of being obliged to respond to suggestions by another person). While some of these characteristics could also be attributed to contemplative practice, some of them are not to be found: for instance, disruption of critical thinking, and demand characteristics. Dissimilarities between the two have also been pointed out in neurobiological aspects by empirical studies (Halsband, Mueller, Hinterberger, & Strickner, 2009). Therefore, it can be suggested that there are commonalities between contemplative practice and hypnosis; but more importantly, there are also differences.

There are some dissertation projects that have examined specifically the possible effect of the practice of the Jesus Prayer on psychological wellbeing (Di Leo, 2007; Van Kuren, 1992). Generally, these projects report a significant positive impact. Worthy of mention is the work by Stavros (1998). The doctoral study by Stavros investigated how the practice of the Jesus Prayer might “affect a person's well-being and relationships, including that person's perceived relationship with God.” In an experimental design involving 88 participants, the treatment group practiced the Jesus Prayer ten minutes daily for thirty days. Results showed that the treatment group's measures of depression, anxiety, hostility, and interpersonal sensitivity were significantly lower than those of the control group. On the other hand, there were no statistically significant differences between treatment and control groups on measures of overall faith maturity, relationships with others, and self-cohesion.

What has not been studied is the direct effect of the Jesus Prayer on addictive behaviour, particularly in terms of character strengths. It was hypothesized in the present doctoral project that the practice of the Jesus Prayer will have a positive impact on the level of character strengths of the participants, and this in turn will inversely correlate with their addiction scores. The hypothesis flows from the conception that the Jesus Prayer could be seen as an expression of the ability to enter into an intimate and personal relationship with the divine (Poloma & Pendleton, 1991, p. 80). This openness to a relationship with a higher power could be an expression of going beyond the self. And this is consistent with positive psychology's definition of spirituality and the core virtue of transcendence, as “characters that forge connection to a larger universe and provide meaning” (Peterson & Seligman, 2004).

4.5.2. Component 2: Labyrinth walking

Labyrinths are maze like structures used for reflective walking. Though sometimes the words ‘maze’ and ‘labyrinth’ are used interchangeably, in this work, ‘labyrinth’ is used with a specific denotation. A maze is generally a multicursal structure that would have many entrances and negotiation of the path might demand logical decision making on the part of the walker. It would have winding paths with a series of dead ends. On the other hand, a labyrinth is unicursal, with just one entrance and one exit. It has a clear centre, with no possibility for getting lost (Bloos, & O'Connor, 2002). Some have referred to a maze as a left brain activity involving problem solving, whereas labyrinth walking as a whole brain activity (Griffiths, 2001). As Craig Wright puts it, mazes require logic to solve a puzzle, and labyrinths demand faith to attain a goal (Wright, 2001, p.3).

The use of the term, ‘labyrinth’ is traceable to Egyptian and Cretan civilizations (Poole, 1910). Artefacts of ancient labyrinths are found across the globe in almost all continents (Munro, 2008). However, one of the most popular labyrinths in the Christian culture is to be found at the Cathedral of Chartres, France. This is one of the largest church labyrinths in the world and was set in the pavement of the cathedral around 1215, though the origin of its sketch in monastic manuscripts could be traced to even earlier period (Wright, 2001). The 11-circuit pattern of the Chartres labyrinth has become the model for several modern day labyrinths. Labyrinths in cathedrals apparently had many uses (Bloos, & O'Connor, 2002). Perhaps the Easter liturgy was celebrated on them. On other occasions, they might have been used as a tool for centring before the start of worship. They could also have been to ward off evil spirits. Of course, the ornamental value cannot be ruled out. Most of all, labyrinth walking is likened to going on a pilgrimage. The Christian labyrinths of the Middle Ages represented a symbolic pilgrimage to the Holy Land even in the way the directions were worked out. However, the concept of the pilgrimage also symbolised the spiritual journey of the soul from “the land of the setting sun to that of the rising sun” (Wright, 2001, p.19). In the Christian tradition, human life on earth was compared to a maze with its meandering pathways in which human beings are expected to make the right decisions to make a peaceful exit. Such thoughts are traceable, for instance, but not only, in the writings of St. Ambrose (c.340-397).

Drawing on this tradition, labyrinths are increasingly used as a tool for contemplation, spiritual awakening and personal transformation (Bloos, & O'Connor,

2002). In the present research project labyrinth walking was used as one of the components of intervention. The purpose of this part of the chapter is to present a summary of the psychological insights and some emerging empirical data from published studies. This section is to be supplemented with the detailed ‘walker’s guide’ provided in Appendix B.

Possible Psychological Impact of Labyrinth Walking

Most of the papers published in peer-reviewed journals that examine the impact of walking the labyrinth remain reflective articles. There are but a few studies that examine the labyrinth from within a particular theoretical framework in psychology; even these articles hardly generate a set of hypotheses to be tested on the grounds of empirical data. The most attractive psychological tradition that facilitates the reflection on the labyrinth is the Jungian perspective, which I will report shortly. The few available empirical studies that aim to test hypotheses tend to focus on the physiological benefits of walking the labyrinth. I will also consider some of these research reports. Within positive psychology, the effect of walking the labyrinth remains largely unexplored, except for some sporadic mention (Shapiro, Schwartz, & Santerre, 2002, p.633).

One conceptual area under which the effects of labyrinth walking are explored is the theme of journey, which, as mentioned above, is also related to pilgrimage. Spiritual exercises that involve physical movement from one point to another become an archetype of the spiritual quest within human beings (Senn, 2002). According to Corelyn Senn, there are parallels between labyrinth walking and the archetypal journeys of shamans and heroes: “that of movement to the centre followed by a return, and the concomitant understanding that all that has arisen and reached maturity must return to renew itself” (Senn, 2002, p.124). This symbolic understanding is consistent with the Cretan myth of the maze constructed for King Minos by Daedalus to contain the Minotaur, in which the word ‘labyrinth’ makes its first appearance (Savitz, 1991), though it is used more in the sense of a ‘maze’. The Minotaur was a creature that had the head of a bull and the body of a man, and the labyrinth was built to contain the ferocious creature. Eventually Theseus would slay the creature by entering the heart of the labyrinth helped by Ariadne, who provided the thread for Theseus to negotiate the labyrinth and return back safely. Caroline Savitz (1991) goes on to explore the positive psychological implication of the myth and the labyrinth particularly in the context of schizoid personality. What is relevant to the present project is to point out that several

studies have linked schizoid phenomenon to addictive behaviour (Armstrong, 2002; Shaffer, 1984). Therefore, labyrinth walking might have an indirect effect on addictive behaviour by dealing with schizoid phenomenon. On a more specific level, the psychological impact of the journey can be best explained in these terms: because it is both kinaesthetic and introspective, labyrinth walking functions as a complete mind-body integrative activity (Peel, 2004).

As introduced above, closely related to the theme of the journey is the Jungian interpretation of the labyrinth. In Jungian parlance, this journey could be understood as the movement towards individuation and wholeness. On a more symbolic idiom, labyrinths are often related to the concept of *mandala* (Katsilometes, 2010). For Jung, the wholeness of the self could be represented in a circle, and the limited wholeness of ego consciousness can be represented in the shape of a square. The *mandala* being a combination of circle and square, not only represents, but also helps, the psyche in the unification of the individual ego within the self (Jung, 1964). In this sense, labyrinth walking is akin to, what in the Indian yogic tradition is referred to as, the *yantra*, which Jung spoke about in conjunction with the concept of the *mandala* (Jung, 1961/1995). *Yantra* is also a maze-like drawing on walls and floors of temples and homes that are used by yogis for purposes of meditation. In most traditional homes in India the women decorate the front of their houses with these *yantra* drawings early mornings almost every day. It is their way of beginning the busy day with a moment of quiet time.

Impact of Labyrinths on wellbeing

I will now focus on the implications of the use of the labyrinth on health and wellbeing. Walking a labyrinth could be a good preparation for a psychotherapy session (La Torre, 2004). Its use in marriage and family therapy has also been explored (Peel, 2004): at the family therapy sessions the family members are asked to construct the labyrinth together and complete the labyrinth-walk one by one focussing on the problem that they want to bring to the session. And when this is followed by the session with the therapist, the process is said to be more fruitful. Though the effect of these trials in the use of a labyrinth in the context of psychotherapy has not been systematically tested, they appear promising.

At the physiological level of health, the possibility for labyrinth walking is being offered as part of palliative care, particularly in the U.S., to promote what some health centres call, “holistic health” (Abdallah-Baran, 2003). As of 2008, it was estimated that at least 60 hospitals in the United States had introduced labyrinth walking as part of

their health programmes (White & Stafford, 2008). Again, there is plenty of, but only, anecdotal evidence to show that labyrinth walking provides benefits such as short term calming, relaxation, and relief from anxiety (Carnes, 2001).

There is at least one peer-reviewed empirical research report assessing the effects of walking a labyrinth on physical health, using parameters of systolic and diastolic blood pressures (Sandor & Froman, 2006). This study examined the effect of one incident of labyrinth walking. There were several limitations to this study: small sample size, the scale used to measure wellbeing was not robust, and several confounds were not controlled for, for instance, smoking and caffeine intake. Therefore, the results should not be over-interpreted. In any case, the researchers report that the experiment created an unexpected interest among some participants (six out of 25) in labyrinth walking. They had walked the labyrinth again by themselves before they were contacted for a follow up. This could indicate that the participants found something interesting in the exercise which the researchers failed to pinpoint (Zahourek, 2006). Nevertheless, to elucidate the neurobiological mechanism behind the effectiveness of mindful walking in a labyrinth, the work of Putai Jin could be cited. The randomised experiment carried out by Jin (1992) showed reduced levels of salivary cortisol (the hormone that is present in the body indicating stress) as a result of slow walking and Tai-Chi moving meditation. This still does not explain the specific impact of labyrinth walking.

In general, therefore, empirical studies examining the physiological and psychological effect of the labyrinth are still wanting. However, as the above discussion has attempted to show, labyrinth walking offers a potential means of intervention integrating mindfulness, religious spirituality and positive psychology. It was hoped that the present study would provide some more relevant data on the psychological effect of the labyrinth particularly on recovery from addiction, from the perspective of positive psychology. Labyrinth walking is already being used to facilitate addiction recovery. In a randomised survey of two hundred and forty substance abuse treatment centres in the United States, 1% of them used labyrinth walking as a spirituality-based intervention (Priester, Scherer, Steinfeldt, Jana-Masri, Jashinsky, Jones, et al., 2009).

In the present study, the researcher was looking for an effective way of providing an opportunity for the participants to have some reflective encounter with the character strengths identified from the qualitative systematic literature review. Giving talks would make the intervention more subjective, making it difficult to repeat.

Labyrinth walking was seen as a good option because it offered a kinaesthetic and introspective opportunity, with the added advantage of its spiritual tradition. Moreover, labyrinth walking was not only consistent with the other two interventions but offered a possibility for blending mindfulness and journaling. According to many authors, the effects of walking a labyrinth are easily comparable to that of mindfulness (Artress, 1995; Shapiro, Schwartz, & Santerre, 2002), and some the studies have used journaling together with labyrinth walking (White & Stafford, 2008).

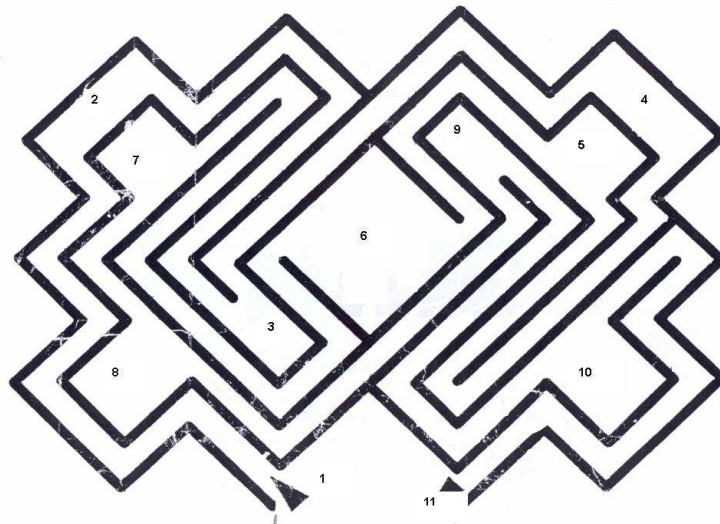


Fig 4.2. The Nairobi Labyrinth

	Activity	Character Strength
Station 1	Introduction	
Station 2	Quieten yourself	Wisdom
Station 3	Let go of worry - stone	Gratitude
Station 4	Reconciliation – putty	Forgiveness
Station 5	The compass (direction)	Integrity
Station 6	The Sacred Space	Spirituality
Station 7	Myself – the persona - mirror	Humility/self discipline
Station 8	Enhancing life (seed)	Altruism/vitality
Station 9	Tree of Prayer Beads	Love
Station 10	Leaving a Legacy	Hope
Station 11	Making a Journal entry	

The labyrinth which was used for intervention in this study is a permanent structure at a Retreat Centre in Nairobi, Kenya. No adjustments in its physical structure were made for the present study. The Nairobi labyrinth, whose shape was inspired by an American version (Proost Productions, 2001), has a contemporary shape with corners (Fig 4.2). However, it integrates some African symbolism and the script had been originally rewritten for an African audience (see Appendix B). The path is marked with tall fences and creeping plants, and there are stations for reflection. As the participants

walk through the labyrinth, they are invited to stop at the stations to perform certain rituals. As summarised in Table 4.6, the rituals are closely related to the salient character strengths of the Values in Action (Peterson & Seligman, 2004). Since the directives were provided by an accompanying booklet, the repeatability of the intervention was ensured making this exercise suitable for research.

4.5.3. Component 3: Mindfulness journaling

Etymology of the word, ‘diary’ can be traced to the Latin, ‘diarium’, which means, “daily allowance”. More precisely it came to refer to a daily record of events. Similarly, ‘journal’ has its roots in ‘jurnal’ in Old French, which literally means, “a day.” Apart from other meanings that the word ‘journal’ carries in English today, it can simply mean: “an account of daily transactions”. There could be a subtle difference between ‘diary’ and ‘journal’, in that a diary is written daily in a calendar based template, whereas a journal could be written less frequently in a writing material that is not necessarily calendar based. In this section, I use the words interchangeably, while preferring the word and the concept of ‘journal’.

Before the 20th century, when literacy levels among the general population were relatively low, and writing materials were hard to get, writing diaries was the privilege of the middle and upper classes. Explorers, travellers, scientists, artists and religious people kept journals in which they noted down not only things of exteriority pertaining to events and people, but also contents of interiority that touched upon their thoughts and emotions. Many such diaries have been published in printed form throughout the modern history. They present not only much information about history, geography and cultures, they also provide a window to cognitive processes, emotive transitions and socio-cultural exchanges. In the spiritual realm, they provide “stories of souls” (Therese of Lisieux, 1912/2007). These days, journaling has become more common. It is even facilitated by software and websites. Some kinds of blogging could also be identified as a contemporary genre in journaling (Lent, 2009).

From an academic and scientific perspective, reflective journaling is used as a teaching and learning technique particularly as part of introductory courses in psychology (Mayo, 2003; Jay & Brooks, 2004). And the analysis of journals is gaining currency as a qualitative research method even in psychology (Day & Thatcher, 2009). On another plane, journaling has been used extensively in therapeutic contexts (L’Abate, Boyce, Fraizer, & Russ, 1992; Pennebaker, 1997; Schneider & Stone, 1998). More

recently, it has also become an attractive tool within positive psychology (Algoe & Haidt, 2009). It is the therapeutic use of journaling that was part of the focus of the present research project.

In the present study, journaling was used as one of the three components of intervention in facilitating the growth in character strengths. The purpose of this section is to describe and evaluate the rationale behind this type of intervention. I begin by providing a brief literature review of how journaling has been evaluated in terms of existing psychological theories, followed by a summary of journal-based intervention used to facilitate addiction recovery. I will then summarise guidelines that were provided to the participants in the present experiment. This is to be supplemented by a set of more practical sessions on journaling that was used during the training workshop, included here in Appendix B.

The psychology of journaling: impact and mechanisms

From a psychodynamic perspective, in the impulse to keep diaries it is possible to recognise a need for people to tell their stories, even if the audience is only themselves (Wiener & Rosenwald, 1993). The journal can be considered also as a transitional object (Sosin, 1983). It can mirror, soothe, help inhibit frightening impulses, and help integrate inner and outer realities. Thus it could play a strong therapeutic role in psychotherapy particularly among adolescents. From the perspective of Adlerian psychology, dichotomy is the source of neurosis (Adler, 1926). Psychological problems arise out of a restrictive view of possibilities that exist for individuals creating a situation of only either-this or-that. Journaling, on the other hand, helps such people to see a broader view of possibilities. Thus the artificial dichotomies are reduced, and mental health is facilitated (Stone, 1998). Journaling could also aid coping. For instance, among parents with children who suffer from chronic illness diary writing contributed to reducing uncertainty and thus helped coping (Murray, 1993). The underlying mechanism in this process could be that keeping a diary can help in recognising patterns and hence provide a certain level of prediction in someone's behaviour. This 'pre-knowledge' could provide improved agency over the challenging situation.

Some authors have discussed journaling under the general theme of disclosure (Pennebaker, 1993). Disclosure, understood as writing or talking about emotional experiences, has been found to promote physical and mental health: with improved immune system, reduced visits to the doctor, subjective well-being resulting from the

reduction of stress, and selected adaptive behaviours particularly among adolescents (Pennebaker, 2007; see also Pennebaker 1995). These effects are prevalent only when participants write at a deep emotional level and not about superficial topics. It has been suggested that the underlying mechanism in journaling is that it facilitates cognitive processing of emotional experiences that allows assimilation in such a way that a coherent narrative is achieved. This, in turn, contributes to wellbeing (Pennebaker, Mayne, & Francis, 1997). However, several studies have raised questions regarding the intricate aspects involved in disclosure, though without denying their possible positive effects (Rimé, Finkenauer, Luminet, Zech, & Philippot, 1998; Stroebe, Schut, & Stroebe, 2006). For instance, Honos-Webb and colleagues (2000) repeated the exercises offered by Pennebaker (1995), and from their findings they go on to suggest that there may be negative consequences of writing about traumatic experiences without a supportive therapy that facilitates the integration of the experiences. In a similar vein, other scholars (for instance, Ullrich & Lutgendorf, 2002) have shown that it is important to combine emotional narrative of traumatic events even in journal writing with some cognitive processing. That is, the description of events with deep feelings should be accompanied by a description of how that person is trying to understand that event. This might facilitate growth in wisdom. On the other hand, as Bien and Bien (2002) advocate, mindfulness practice could help in processing the journal entries thus facilitating integration.

Another technique related to mindfulness journaling is what Jin (2005, as cited by Seih, Lin, Huang, Peng, & Huang, 2008) has called “psychological displacement diary-writing paradigm (PDDP).” The purpose of this technique is to help the writers to distance themselves from their stories in such a way that they are able to analyse their own stories with some emotional distance and extract wisdom from them. This is facilitated by instructing the participants to first make their diary entries in the first-person, and then begin to narrate the same story in writing in the second-person. This second phase acts as a self-support strategy. Finally, the participants write it again from a different perspective in the third-person. This final phase helps the participants to analyse their story more objectively. There is some empirical evidence to support the proposition that PDDP facilitates the integration of self disclosure and emotional distancing with some psychological benefits, particularly among people who exhibit high anxiety levels (Seih, Lin, Huang, Peng, & Huang, 2008).

In psychotherapy, journaling could be a means of maintaining a sense of contact with the patient during the therapist’s absence, such as during holidays or long gaps. It

could also provide a possibility for the client to deepen the therapeutic experience between sessions. “A diary for writing down thoughts and experiences is especially useful with rather silent patients, such as adolescents or schizophrenics, who have difficulty in talking. Any daily written task required by the therapist is an important link for children and for those adults who experience even the time between regular appointments as unduly long” (Hare-Mustin & Tushup, 1977, p.533). Some of the techniques of psychotherapy include diary writing as a systematic homework between sessions. This technique could be used for diagnostic purposes as well as for personal transformation. Based on a randomised experiment, Maultsby (1971, p.195) suggests that the use of the homework technique could be helpful for clients “who have failed to be helped by more traditional methods” and that the technique contributes to an increase in the number of patients seen in clinic settings, preventing dropouts. These findings were supported in another similar study by Bastien and Jacobs (1974). These researchers go on to suggest that for better effects the reaction from the therapist is needed on pieces of written homework. Though these studies are not directly investing the techniques of prolonged journaling, these findings could be extended to the effects of journaling in general.

One of the primary objectives of therapeutic interventions in positive psychology is to facilitate a positive affective state, because this state assists in sustaining subjective wellbeing. In other words, ‘positivity’ is said to play a vital role in wellbeing. Findings of several studies on journaling, even though not necessarily operating on the theoretical framework of positive psychology, have suggested “that a heavy emphasis on experiences of negative emotion may result in increased levels of anxiety and depression” (Smith, 2005, p.1080). Therefore, journaling intervention within positive psychology focuses on the positive narration.

Effects of Journaling on recovery from addiction

Several studies report the impact of diary writing on recovery from addiction (Ballon & Skinner, 2008; Stephenson & Haylett, 2000). One such study (Neumann, 1985) considers the completion of a structured diary task as a means of increasing self-evaluation. In this study, besides improved self-evaluation, post-test showed also increased internalisation in the Rotter Locus of Control Scale (Rotter, 1966).

Blakeney and colleagues (2005) in their qualitative study among recovering Jewish alcoholics and drug addicts report that journaling seems to help in the integration of the split between feelings and thoughts. One of their participants, Sara, attests to this:

I look at how I was, and I don't know where those ten years went. I still thought I was a good kid. I finished college, I worked hard, had my own apartment, paid my own rent. And that didn't change how I thought of myself, even when I was sleeping with my dealer to get drugs, and stealing from the man I lived with to pay for drugs. I don't think I felt anything I was numb, and when I wasn't numb, I took more drugs to stay numb. I still intellectualize instead of feeling, but now I know it, so I try to write, which helps... (p.71).

This integration can be further assisted through mindfulness. Bien and Bien (2002) suggest that journaling should be accompanied with mindful practice to facilitate addiction recovery, particularly when negative affect is involved: "Being in touch with negative feelings is only helpful if you can bring some peace and mindfulness to them" (p.72). Box 4.1 below offers general guidelines for making a journal entry in a mindful manner. The manual used in training the participants in the present study is included in Appendix B.

Box 4.1

Guidelines for Mindfulness Journaling

Quieten yourself. Spend a few moments breathing in and out.

As you breathe out, relax the different parts of your body. Get in touch with your thoughts and feelings at this moment.

When you are ready, begin to write your thoughts and feelings down. If you find it difficult to begin somewhere, just begin by describing the events of the day or the past few hours. What people have you met? What events have you witnessed? What touched you most during the day? Were there insights that cropped up in your mind during the day?

How were your quiet moments, including the contemplative practice? Generally, were you serene and centred (focussed) during the day? (You might want to follow a particular style of journaling from among the different approaches described in Appendix B).

Consider your diary as a faithful listener and companion. Consider your diary as a safe space where you can be yourself. Consider your diary as the sacred space where you can get in touch with God, by getting in touch with yourself.

As you write, from time to time get in touch with your self: What thoughts come to your mind? What inner wisdom is there in those thoughts? How do you feel? What message does your feeling bring to you? Would you like to write even these insights?

Conclude by rereading what you have written, and getting in touch with your thoughts and feelings. If there is something more that you feel like writing, just go ahead and write. If you feel your heart is heavy, try to practice Christian mindfulness.

Surrender that feeling to a Greater Power – God!

You might want to talk to someone about it later, and seek help.

But for now, just let go.

Chapter 5

Results

This chapter reports the findings of the empirical part of the study. The first six sections of the chapter reports the analysis of the quantitative data, and the seventh section reports the case studies. In all analyses of quantitative data missing values have been treated as per the default in SPSS version 19. That is, in the correlation tests missing values have been excluded pairwise. In other tests (Dimension Reduction and Regression, which includes also Path Analysis) missing values have been excluded likewise. In the assessment of the significance of all statistics in this results section, probability level has been fixed at .05. Whenever repeated pair-wise comparison tests were used Bonferroni correction was undertaken. Also, for regression tests adjusted R^2 values have been used to report goodness-of-fit.

5.1. Reliability of the Instruments Used

5.1.1. *Internal reliability tests for instruments used*

A test for reliability measuring Cronbach's α (Cronbach, 1951) was run for the instruments that were used in the present study. Table 5.1 reports the reliability α in the present data set, with mean scores for all variables. As regards the interpretation of the Cronbach's α , it is important to note as Field (2005) points out, that scales with many items would tend to produce low α levels, but they could be more robust and could be included for analysis, as compared to scales that have fewer items and higher α levels. Therefore, in the BriefCope where each subscale has only 2 items, three subscales with α levels below .5 or a little above that value were not included for analysis, as also recommended by the author (Carver, 1997). Those eliminated were: positive reframing, planning, and acceptance styles of coping.

Table 5.1.
Reliability of Measures Used

Measure	Items	Cronbach's α in the present data	Mean	SD	Scoring Range	
IV1	VIA-IS (Peterson & Park, 2009)	240	.967	-	-	-
CS1	Curiosity	10	.667	3.91	0.525	1 to 5
CS2	Love for Learning	10	.684	3.66	0.626	1 to 5
CS3	Open-mindedness	10	.739	4.01	0.570	1 to 5
CS4	Creativity	10	.719	3.93	0.553	1 to 5
CS5	Social Intelligence	10	.629	3.99	0.635	1 to 5
CS6	Perspective	10	.448	3.95	0.611	1 to 5
CS7	Bravery	10	.539	3.89	0.609	1 to 5
CS8	Persistence	10	.732	4.07	0.581	1 to 5
CS9	Integrity	10	.524	3.98	0.598	1 to 5
CS10	Kindness	10	.743	4.06	0.577	1 to 5
CS11	Love	10	.582	4.07	0.594	1 to 5
CS12	Citizenship	10	.786	4.08	0.593	1 to 5
CS13	Fairness	10	.600	4.17	0.622	1 to 5
CS14	Leadership	10	.599	4.14	0.666	1 to 5
CS15	Self-regulation	10	.583	3.88	0.584	1 to 5
CS16	Prudence	10	.650	3.89	0.599	1 to 5
CS17	Appreciation of beauty	10	.698	3.75	0.603	1 to 5
CS18	Gratitude	10	.604	4.18	0.538	1 to 5
CS19	Hope	10	.615	4.33	0.618	1 to 5
CS20	Spirituality	10	.591	4.12	0.558	1 to 5
CS21	Humility	10	.519	3.84	0.618	1 to 5
CS22	Humour	10	.790	3.96	0.610	1 to 5
CS23	Vitality	10	.670	3.92	0.543	1 to 5
CS24	Forgiveness	10	.539	3.89	0.712	1 to 5
IV2	MI-RSWB 48 (Unterrainer 2010)	48	.842	-	-	-
	General Religiosity	8	.871	5.27	0.964	1 to 6
	Forgiveness	8	.782	4.43	1.12	1 to 6
	Hope-Immanent	8	.761	4.82	0.923	1 to 6
	Connectedness	8	.702	4.49	0.956	1 to 6
	Hope-transcendent	8	.595	2.96	0.977	1 to 6
	Experience of Sense & Meaning	8	.611	4.73	0.966	1 to 6
DV1	AUDIT (Barbor et al., 2001)	10	.861	3.14	5.48	0 to 40
DV2	SAST (Carnes, 1989)	25	.859	5.20	4.69	0 to 25
DV3	CIUS (Meerkerk et al., 2009)	14	.823	21.48	11.35	0 to 56
CV1	BriefCope (Carver, 1997).	14	.60 to .74	-	-	-
	Coping - Religious	2	.638	3.16	0.863	1 to 4
	Coping - Active	2	.606	3.18	0.783	1 to 4
	Coping – Emotional support	2	.656	2.87	0.852	1 to 4
	Coping - Instrumental support	2	.740	3.06	0.859	1 to 4
	Coping – Positive Reframing	2	.219	-	-	-
	Coping - Planning	2	.324	-	-	-
	Coping - Acceptance	2	.504	-	-	-
CV2	HADS - Anxiety	7	.684	8.51	3.72	0 to 21
	HADS - Depression	7	.567	5.56	3.15	0 to 21

Note: N = 504

5.1.2. Test-retest Reliability of the VIA-IS

To test the test-retest reliability of the VIA- inventory of character strengths, the scores from the no intervention control group (n=24) were used; the time-lapse between

the test-retest was three months. Test-retest reliability on VIA character strengths, as measured by Pearson's correlation coefficients, showed significant values on 18 out of the 24 character strengths; the Pearson's r values ranged from .442 to .748, with six of the character strengths scoring $r > .6$. These character strengths were persistence, leadership, prudence, hope, spirituality, and humour (Table 5.2a). Six other character strengths (curiosity, love for learning, perspective, fairness, appreciation of beauty and humility) showed no significant correlation between test-retest scores. A test for Spearman's Rho, assuming that the data was not normally distributed, also yielded very similar patterns. Test-retest reliability on addiction measures (Table 5.2b) were slightly better than that of the VIA. In any case, the results of the test-retest reliability reported here are to be considered only as being indicative on account of the small sample size ($n=24$). The implications of this is discussed in the next chapter.

	r
CS1 Curiosity	.371
CS2 Love for Learning	.266
CS3 Open-mindedness	.442 [†]
CS4 Creativity	.539 ^{**}
CS5 Social Intelligence	.525 ^{**}
CS6 Perspective	.323
CS7 Bravery	.546 ^{**}
CS8 Persistence	.662^{**}
CS9 Integrity	.531 ^{**}
CS10 Kindness	.580 ^{**}
CS11 Love	.521 ^{**}
CS12 Citizenship	.523 ^{**}
CS13 Fairness	.032
CS14 Leadership	.601^{**}
CS15 Self-regulation	.599 ^{**}
CS16 Prudence	.744^{**}
CS17 Appreciation of beauty	.342
CS18 Gratitude	.511 [†]
CS19 Hope	.748^{**}
CS20 Spirituality	.608^{**}
CS21 Humility	.119
CS22 Humour	.717^{**}
CS23 Vitality	.491 [†]
CS24 Forgiveness	.580 ^{**}

Note: $N=24$; Significance levels: [†] $p < .05$; ^{**} $p < .01$.

Table 5.2b
Test-retest reliability for addiction measures
based on Pearson's r

	r
Compulsive Internet Use (CIUS)	.521**
Harmful use of alcohol (AUDIT)	.563**
Sex Addiction (SAST)	.808***

Note: N=24; Significance levels: * p<.05; ** p<.01; *** p<.001

5.1.3. Factor Analysis on the VIA-IS

The factorial structure of the 24 CS was examined based on their mean scores derived from the 10-item measure for each CS. All the 24 CS correlated with each other (Pearson's r ranging from 0.395 to 0.699, $p < .001$; see Table 5.4). The Kaiser-Meyer-Olkin measure of sampling adequacy was .976, above the recommended value of .6, and Bartlett's test of sphericity was significant ($\chi^2(276) = 8650.73, p < .001$). These values suggested that the strength of the relationship among variables was strong. Therefore it was meaningful to proceed with a factor analysis for the data. Finally, the communalities were all above .4 (Table 5.3), further confirming that each item shared some common variance with other items. Therefore, it was meaningful to include all the 24 variables of the VIA for factor analysis.

Principal components analysis, rather than confirmatory factor analysis, was used because the primary purpose was to identify the composite pattern underlying the VIA using the data collected, for the first time in Kenya, by means of a pencil and paper test. The initial eigenvalues showed that the first factor explained 55.9% of the variance and the second factor 4.3% of the variance. A two factor solution, which explained 60.2% of the cumulative variance, was preferred because this was also consistent with the hypothesis (H_2) of the present study.

For the two factor extraction, using varimax rotations, all coefficients below the absolute value of .40 were suppressed as suggested by Field (2005). Six of the character strengths (persistence, prudence, self-regulation, fairness, leadership, and love for learning) had primary loading over .6 on component 1, and five others (love, appreciation of beauty, kindness, gratitude, humility) had primary loading over .6 on component 2 (Table 5.3). All other character strengths had cross-loading above .4. This was an interesting finding in itself as it will be taken up for discussion in the next chapter. However, this structure was not useful for further analysis as this pattern did

not correspond to the predictions emerging from the review of the addiction-spirituality literature reported in Chapter 3. Therefore, in the rest of the analysis process character strengths were treated as discrete variables, except for one analysis in the section on extraneous and latent variables.

	Factor 1	Factor 2	communality
Persistence/industry	.792		.682
Prudence	.742		.740
Self-regulation	.737		.646
Fairness/equity	.679		.509
Leadership	.656		.535
Love for Learning	.645		.710
Spirituality	.574		.644
Forgiveness/Mercy	.568		.679
Open-mindedness	.759	.406	.542
Citizenship/teamwork	.655	.500	.583
Creativity/Originality	.627	.503	.484
Hope/Optimism	.618	.409	.710
Perspective	.567	.463	.548
Integrity/Honesty	.548	.428	.578
Bravery/Valour	.545	.534	.618
Personal/Social Intelligence	.511	.498	.647
Love		.765	.666
Appreciation of beauty		.762	.586
Kindness/generosity		.743	.550
Gratitude		.666	.643
Humility/Modesty		.648	.684
Curiosity/Interest	.475	.676	.545
Humour/Playfulness	.419	.683	.477
Vitality/Zest	.557	.611	.460

Table 5.4
Inter-Correlation between Character Strengths

	CS 1	CS 2	CS 3	CS 4	CS 5	CS 6	CS 7	CS 8	CS 9	CS 10	CS 11	CS 12	CS 13	CS 14	CS 15	CS 16	CS 17	CS 18	CS 19	CS 20	CS 21	CS 22	CS 23	CS 24	
CS1. Curiosity/Interest	1																								
CS2. Love for Learning	.616	1																							
CS3. Open-mindedness	.648	.626	1																						
CS4. Creativity	.669	.626	.746	1																					
CS5. Social Intelligence	.607	.492	.601	.604	1																				
CS6. Perspective	.583	.531	.604	.646	.539	1																			
CS7. Bravery/Valour	.612	.525	.649	.639	.539	.557	1																		
CS8. Persistence	.600	.572	.681	.604	.511	.535	.599	1																	
CS9. Integrity/Honesty	.481	.444	.541	.512	.449	.498	.520	.554	1																
CS10. Kindness	.618	.471	.594	.581	.512	.519	.585	.537	.574	1															
CS11. Love	.550	.406	.483	.490	.483	.438	.491	.429	.455	.654	1														
CS12. Citizenship	.581	.521	.686	.598	.553	.562	.575	.635	.580	.675	.596	1													
CS13. Fairness/Equity	.477	.440	.604	.495	.446	.489	.485	.552	.499	.575	.459	.656	1												
CS14. Leadership	.564	.524	.646	.589	.505	.515	.542	.592	.474	.590	.486	.668	.601	1											
CS15. Self-regulation	.530	.554	.617	.550	.499	.496	.545	.642	.466	.477	.443	.601	.511	.535	1										
CS16. Prudence	.527	.535	.663	.580	.530	.548	.501	.644	.553	.557	.452	.625	.590	.535	.631	1									
CS17. Appr of beauty	.669	.521	.540	.579	.492	.534	.554	.464	.466	.622	.551	.535	.416	.465	.468	.486	1								
CS18. Gratitude	.577	.414	.543	.519	.467	.527	.528	.507	.498	.640	.548	.587	.466	.496	.472	.542	.587	1							
CS19. Hope	.567	.479	.607	.572	.471	.503	.515	.607	.478	.513	.479	.585	.489	.519	.524	.533	.487	.517	1						
CS20. Spirituality	.496	.494	.535	.512	.464	.452	.519	.541	.500	.490	.449	.549	.446	.456	.517	.526	.429	.547	.530	1					
CS21. Humility	.520	.470	.530	.476	.453	.465	.500	.502	.452	.582	.581	.547	.439	.481	.488	.473	.536	.513	.465	.469	1				
CS22. Humour	.694	.503	.601	.633	.573	.535	.583	.501	.504	.644	.541	.609	.463	.517	.495	.526	.567	.525	.543	.440	.515	1			
CS23. Vitality/Zest	.699	.602	.647	.653	.557	.558	.635	.653	.534	.638	.533	.619	.502	.553	.586	.568	.611	.564	.602	.552	.589	.689	1		
CS24. Forgiveness	.479	.495	.530	.443	.426	.463	.443	.522	.441	.518	.422	.551	.507	.494	.474	.481	.430	.441	.569	.395	.471	.529	.552	1	

Note: N=504; all significant levels: p<.001.

5.1.4. Correlation between dimensions of Religiosity/Spirituality Wellbeing (MI-RSWB) and character strengths (VIA-IS)

Table 5.5
Correlation between MI-RSWB and VIA-IS

Character strengths	General Religiosity n=491	Forgiveness n=490	Hope Immanent n=489	Connect-edness n=488	Hope Transcendent n=489	Sense & Meaning n=490
Curiosity	.073	.160***	.207***	.287***	-.154**	.290***
Love for Learning	.069	.130**	.174***	.252***	-.125**	.186***
Open-mindedness	.147**	.178***	.298***	.303***	-.116*	.256***
Creativity	.131**	.097*	.275***	.336***	-.210***	.306***
Social Intelligence	.123**	.134**	.241***	.267***	-.136**	.264***
Perspective	.133**	.150**	.207***	.277***	-.141**	.263***
Bravery	.165***	.119**	.276***	.335***	-.218***	.315***
Persistence	.197***	.212***	.308***	.260***	-.099*	.203***
Integrity	.092*	.112*	.157***	.239***	-.097*	.210***
Kindness	.154**	.122**	.271***	.336***	-.218***	.309***
Love	.181***	.124**	.284***	.349***	-.191***	.346***
Citizenship	.203***	.264***	.286***	.316***	-.101*	.284***
Fairness	.150**	.295***	.253***	.221***	-.075	.191***
Leadership	.146**	.261***	.231***	.251***	-.115*	.272***
Self-regulation	.171***	.178***	.252***	.291***	-.088	.169***
Prudence	.157***	.185***	.244***	.276***	-.111*	.223***
Appreciation of beauty	.096*	.057	.218***	.319***	-.229***	.341***
Gratitude	.164***	.170***	.262***	.339***	-.203***	.290***
Hope	.205***	.227***	.365***	.292***	-.119**	.190***
Spirituality	.227***	.224***	.237***	.321***	-.080	.209***
Humility	.161***	.145**	.213***	.261***	-.171***	.261***
Humour	.081	.111*	.207***	.275***	-.105*	.276***
Vitality	.104*	.149**	.281***	.290***	-.159***	.267***
CS - Forgiveness	.103*	.301***	.209***	.226***	-.048	.172***
Religiosity Dimension	1	-	-	-	-	-
RWSB – Forgiveness	.320***	1	-	-	-	-
Hope Immanent	.693***	.301***	1	-	-	-
Connectedness	.515***	.103*	.588***	1	-	-
Hope Transcendent	-.284***	.239***	-.296***	-.419***	1	-
Sense & Meaning	.505***	.088	.526***	.615***	-.427***	1

Significance levels: * p<.05; ** p<.01; *** p<.001

As stated earlier, MI-RSWB was used in this study as an alternative measure for the VIA-IS since they have some commonality. It is interesting to note that the correlation between most of the character strengths of VIA-IS and the dimensions of MI-RSWB was significant (Table 5.5). Of particular importance was the moderate level correlation between some of the character strengths like forgiveness, hope, and spirituality.

5.2. Addictive Behaviour among the Sampled Population

5.2.1. Addiction Prevalence

Among participants, 30.33% scored more than the cut off point (28 out of possible 56) in the measure for compulsive internet use (Table 5.6). On the AUDIT score, 3.6% showed alcohol dependence scoring above 20 points; and 12.6% showed high-risk drinking scoring from 8 to 19 points in the AUDIT measure. Figure 5.1 is the Drinkers' Pyramid for the sample population. As explained in the previous chapter, high-risk drinkers include harmful drinkers, that is, those who scored from 16 to 19. Though the shape of the pyramid here is similar to the one presented by the World Health Organisation for general population (Babor & Higgins-Biddle, 2001), the abstainers in the WHO pyramid amount to only 40%. The high prevalence of abstainers in this sample could be attributed to the delayed exposure to alcohol in Kenyan society, that is, it is not part of the family meal in Kenyan families. As Figure 5.4 shows only at the age of 26 there is a marked increase in alcohol consumption. On the Sexual Addiction Screening Test (SAST), 9.14% scored above the cut off point of 13 out of a possible total of 25. On CIUS, 30.3% scored above the cut off point of 28 out of 56.

Table 5.6
Prevalence of Addictive behaviour among the sample population

Age	All (N=504)	CIUS (n=501) (Scoring 28 and above)			AUDIT (n=500) (Scoring 8 and above; % of the age-group)			SAST (n=503) (Scoring 13 and above; % of the age-group)		
		No.	% of n	% age-group	No.	% of n	% age-group	No.	% of n	% age-group
18-20	111	33	6.59	29.72	11	2.2	9.90	16	3.18	14.41
21-23	233	74	14.77	31.76	38	7.6	16.30	17	3.38	7.30
24-26	103	33	6.58	32.03	17	3.4	16.50	12	2.38	11.65
27-30	57	12	2.40	21.05	15	3.0	26.31	1	0.20	1.75
Total	504	152	30.3%		81	16.2%		46	9.14%	

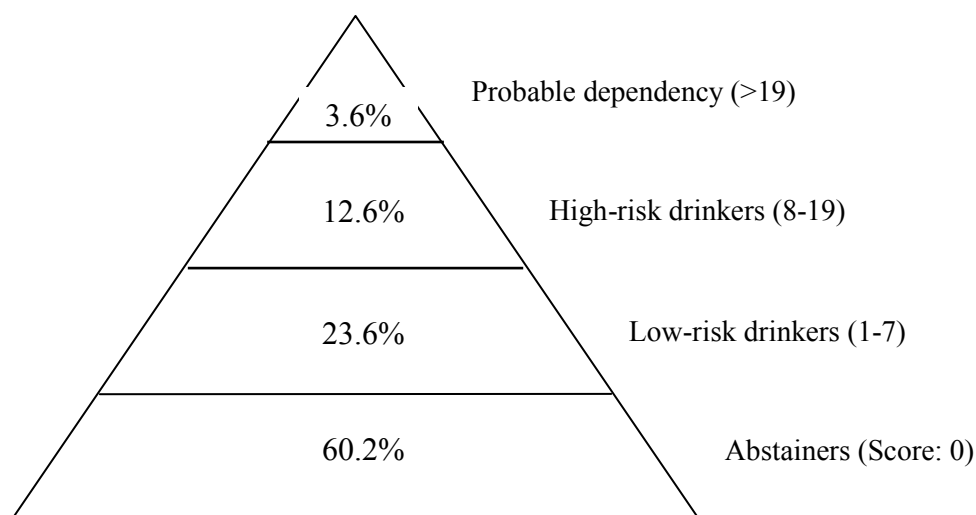


Figure 5.1. Drinkers' Pyramid: Nairobi Sample (n=500)

5.2.2. Inter-correlation between addictions

Table 5.7
Inter-correlation between addiction scores

	Compulsive use of internet (CIUS) n=501	Alcohol misuse (AUDIT) n=500	Sex addiction (SAST) n=503
CIUS	1	-	-
AUDIT	.107*	1	-
SAST	.187***	.252***	1

Significance levels: * p<.05; ** p<.01; p<.001

There were three types of addiction measures employed in the present project. Table 5.7 shows the inter-correlation between the three measures of addiction. As expected, the three addictive behaviours show significant but low level of correlation between each other. It is interesting to note that correlation between sex addiction and alcohol misuse was higher than the correlation between compulsive use of the internet and alcohol misuse. The relationship between sex addiction and the use of internet to access pornography was not examined in the survey. In any case, with weak correlation values the present data suggests that the three types of addictive behaviour could be discrete, that is, they might have different pathways.

5.2.3. Religious spirituality and addictive behaviour

As this is a project in psychology of religion, focusing on religious spirituality, the relationship of traditional criteria for religiosity (attendance in communal worship, prayer, and reading of scripture) and some spiritual practices (like meditation) with addiction scores was examined. Therefore, the personal details section of the questionnaire had four items that examined the religious spirituality of the participants, which were in a 5-point Likert scale (ranging from 0 to 4). The items were formulated thus, “How often do you do the following:

- Participate in common worship?
- Read your Scriptures on your own?
- Pray by yourself?
- Meditate?

Reliability test on the four items yielded a Cronbach’s $\alpha = .59$. The correlation between the 4 items and scores of addictive behaviour is presented in Table 5.8. There is some significant negative correlation between alcohol consumption and all items of ‘religious spirituality’. There is also a mild negative correlation between sexual

addiction and reading of scripture. There is no correlation between compulsive use of the internet and any item of religious spirituality.

Table 5.8
Correlation between religious spirituality and addictive behaviour

	Worship	Scripture	Prayer	Meditation	MI-RSWB General Religiosity
CIUS	-.030	.054	.061	.071	-.023
AUD	-.152**	-.227**	-.089*	-.123**	-.158**
SAST	-.039	-.134**	-.060	-.026	-.103*
MI-RSWB General Religiosity	.185**	.249**	.252**	.085	1

Significance levels: * p<.05; ** p<.01

General religiosity, as measured by MI-RSWB includes belief in God, expressions of closeness to God, and experiencing security and trust in God's help. It also presupposes attendance in communitarian religious events, and the recognition of the presence of God in nature. The reliability test for eight items of general religiosity yielded a Cronbach's $\alpha = .87$. The scores of this dimension positively correlated at significant levels with worship, reading of scripture and personal prayer (Table 5.8). General religiosity as measured by MI-RSWB also negatively correlated with scores of alcohol misuse and sexual addiction. The correlation with compulsive use of the internet was not significant. Thus, similar patterns were observed in the correlation between religiosity and addictive measures, even though religiosity has been measured by two separate measures. However, correlation values across all variables for this sample were at moderate or below moderate levels.

5.3. Character Strengths and Addictive Behaviours: Correlations and Regressions

5.3.1. The effect of extraneous and latent variables on addictive behaviours

It would be proper to interpret the effect of character strengths on addictive behaviours after having established the effect of extraneous variables: gender, age, marriage status, and religious affiliation. Two types of tests were performed to assess the effect of gender on addictive behaviours. In a pair-wise comparison of means, with Bonferroni correction for multiple comparisons, gender had a significant effect on alcohol misuse and sex addiction, with the males having higher mean scores. Gender had no effect on compulsive use of the internet. Regression tests further showed that in

alcohol misuse 3.1% of variance can be explained by gender, and in sex addiction males are 2% more likely to have show higher sex addiction than females.

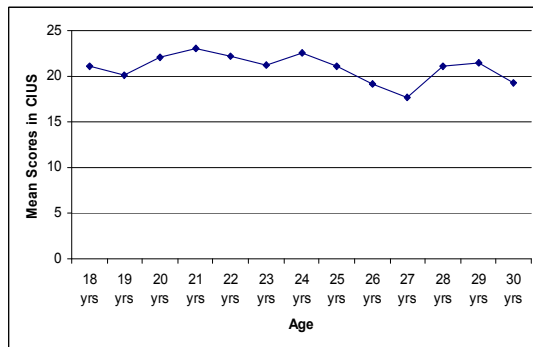


Figure 5.2. Age and compulsive use of the internet

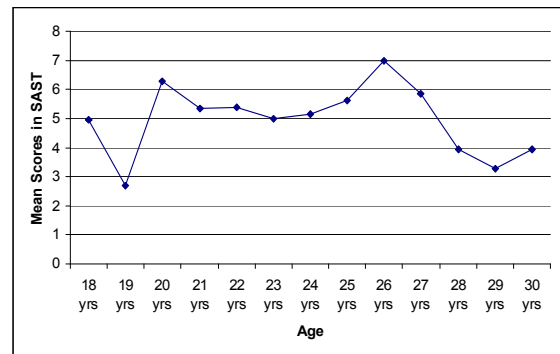


Figure 5.3. Age and sexual addiction

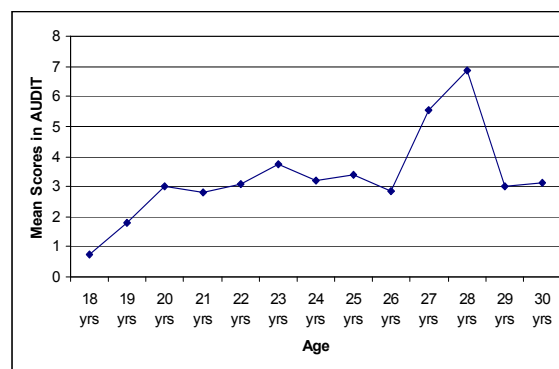


Figure 5.4. Age and alcohol misuse

Going by the mean scores, age had varying influence on the three addictive behaviours that were measured in this study, as illustrated by Figures 5.2 to 5.4. While for Compulsive use of internet there is no clear pattern emerging, the age-group between 25 and 27 seems to show high scores for sexual addiction, besides the 21 year olds; and the age-group between 26 and 29 exhibits high scores in the use of alcohol. Linear regression tests using dummy variables showed that marriage status had a small significant effect only on sex addiction, explaining 1.6% of the variance. Unmarried single participants showed slightly higher scores than their married counterparts. Educational levels had significant effect on the use of alcohol, but no effect on compulsive use of the internet or sex addiction. Regression tests using dummy variables showed that undergraduates had significantly higher scores in the use of alcohol, and that education levels explained 3.6% of variance. Religious affiliation had no significant impact on any of the measures of addictive behaviour. Interestingly, there was no significant difference in the scores on Compulsive Internet Use Scale (CIUS) between laptop owners and those who did not own a laptop. Similarly, being online most of the waking hours had no significant effect on the CIUS scores.

Field (2005, p.736) defines “latent variable” as “a variable that cannot be directly measured, but is assumed to be related to several variables that can be measured.” In this sense, latent variables are also related to clusters of variables that are extracted through factor analysis. For the sake of comprehensiveness of the data analysis in this study, simple linear regression tests were carried out to examine the effect of the two factors extracted through Principal Component Analysis (Table 5.3). New variables were created from the data-set of the survey (N=504) for Factor 1 using the mean scores of persistence, prudence, self-regulation, fairness, leadership, and love for learning, and Factor 2 using the mean scores of love, appreciation of beauty, kindness, gratitude, and humility. The two factors had no significant effect on compulsive use of the internet. However, only Factor 1 had significant effect on alcohol misuse and sex addiction, explaining 3.8% and 5% of the variance respectively.

5.3.2. Correlation between character strengths and addictive behaviours

There are significant inter-correlations (Pearson’s $r > .5$, $p < .001$), nearly all negative, between all character strengths in this data set (N=504; see Table 5.4). Table 5.9 reports the correlation scores between character strengths and addiction measures.

All except three character strengths (bravery, love, appreciation of beauty) are negatively correlated to sexual addiction scores at small but significant levels. Eight of these correlations are highly significant ($p < .001$ levels). Seventeen (17) character strengths are negatively correlated to scores of Alcohol Use Disorders Identification Test (AUDIT). Only ‘love for learning’ is correlated to scores of CIUS, and this positively.

It is important to note that Pearson’s r value is generally small (the highest score being $-.230$ for correlation between prudence and sex addiction), even though significance levels on several scores are high. Scatter-plots showed that the points were not clustered as to show a clear straight line. The implications of this are considered in Chapter 6 of this study. In any case, it is worthwhile to note that there were three character strengths that emerged as salient to harmful use of alcohol and sex addiction, even if the Pearson’s r value was small ($> .2$): integrity, prudence and spirituality.

It was thought possible that those scoring above the cut-off points in the addiction measures might have skewed the correlation. Would there be any difference between participants who scored high on addiction measures and those who scored below the cut-off points? Bivariate correlation tests were run between the scores on 24

character strengths and the scores of the three types of addiction after the data-set was split on the basis of the cut off points for each of the addiction measures.

Table 5.9
Correlation between Character strengths and Addiction Scores

		CIUS n= 501	AUDIT n=500	SAST n=503
1	Curiosity/Interest	.047	-.017	-.103*
2	Love for Learning	.096*	-.098*	-.133**
3	Open-mindedness	-.009	-.111*	-.162**
4	Creativity/Originality	.047	-.061	-.099*
5	Social Intelligence	.067	-.093*	-.116**
6	Perspective	.025	-.125**	-.117**
7	Bravery/Valour	-.013	-.044	-.086
8	Persistence/industry	-.081	-.168**	-.198**
9	Integrity/Honesty	-.008	-.102*	-.219**
10	Kindness/generosity	.033	-.075	-.133**
11	Love	.017	-.050	-.051
12	Citizenship/teamwork	.010	-.150**	-.135**
13	Fairness/equity	-.050	-.151**	-.160**
14	Leadership	.039	-.083	-.132**
15	Self-regulation	-.013	-.148**	-.179**
16	Prudence	-.059	-.219***	-.230**
17	Appreciation of beauty	.047	-.016	-.035
18	Gratitude	-.010	-.117**	-.094*
19	Hope/Optimism	-.011	-.165**	-.149**
20	Spirituality	-.039	-.208**	-.154**
21	Humility/Modesty	-.009	-.087	-.160**
22	Humour/Playfulness	.040	-.042	-.116**
23	Vitality/Zest	.006	-.111*	-.167**
24	Forgiveness/Mercy	-.056	-.095*	-.170**

Significance levels: * p<.05; ** p <.01; *** p <.001

It is interesting to note (as shown in Table 5.10) that when separate correlation tests were run on data after selecting those that scored above the cut-off point in the respective addiction measures, persistence, spirituality and forgiveness were negatively correlated to AUDIT scores at significant levels; appreciation of beauty was positively correlated to compulsive use of the internet; and none of the character strengths were significantly correlated with the sexual addiction. When a similar process was carried out with the data-set after selecting those that scored below the cut-off points, the patterns were very similar to those reported in Table 5.10.

Table 5.10
Correlation between the scores of CS
and addiction measures above the cut-off points

Addiction type	Correlated CS	Pearsons r
CIUS (scoring 28 and above; n=152)	Appreciation of beauty	.186*
AUDIT (scoring 8 and above; n=81)	Persistence	-.225*
	Spirituality	-.223*
	Forgiveness	-.277*
SAST (scoring 13 and above: n=46)	None	

Note: Significance levels: *p<.05

Forgiveness as measured by Multidimensional Inventory for Religious/Spiritual Wellbeing (MI-RSWB 48) showed some interesting patterns in correlation when the data from those with addictive behaviour were used. Forgiveness showed significant negative correlation with compulsive use of the internet ($r = -.154, p=.001, n=487$), harmful use of alcohol ($r = -.168, p<.001, n=486$), and sexual addiction ($r = -.233, p<.001, n=489$). On the other hand, it seemed strange that forgiveness, as measured by Values in Action measure (Table 5.9), did not correlate with compulsive use of the internet.

Taken together, there is a small but significant negative correlation between Alcohol and sex addiction measures and 19 character strengths. Of particular interest are forgiveness, persistence, integrity and spirituality.

5.3.3. Regression: the effect of character strengths on addictive behaviours

Multiple Linear Regression was carried out to determine the effect of independent variables (character strengths) on the three types of addictive behaviours.

In the stepwise multiple regression examining the effect of character strengths on compulsive use of the internet (Table 5.11), love for learning was entered first and this explained mere 0.7% of the variance in CIUS. But when persistence was entered, they together explained 3.3% of variance. Increase in love for learning and decrease in persistence was associated with increase in compulsive use of the internet.

Table 5.11
Stepwise Multiple Linear Regression for Character Strengths Predicting CIUS (N= 500)

Dimensions of RSWB	Model 1				Model 2			
	B	SE	β	t	B	SE	β	t
Love for Learning	1.766	.821	.096	2.150*	3.911	.989	.212	3.954***
Persistence					-3.959	1.046	-.203	-3.784***
Adjusted R ²			.007				.033	
F			4.621*				9.533***	

Note: significance levels: *p<.05; ** p <.01; *** p <.001

Table 5.12
Stepwise Multiple Linear Regression for Character Strengths Predicting Alcohol misuse (N= 499)

Character strengths	Model 1			Model 2			Model 3			
	B	SE	t	B	SE	t	B	SE	t	
Prudence	-2.00	0.40	-2.22	-2.65	0.48	-2.29	-2.03	0.49	-2.22	-4.096***
Curiosity			-5.001***	1.41	0.53	.14	2.00	0.55	.19	3.630***
Spirituality							-1.84	.52	-.18	-3.537***
Adjusted R ²	.046			.057			.079			
F	25.008***			16.185***			15.209***			

Note: significance levels: * p < .05; ** p < .01; *** p < .001

Table 5.13
Stepwise Multiple Linear Regression for Character Strengths Predicting Sexual Addiction (N= 502)

Character strengths	Model 1			Model 2			Model 3			
	B	SE	t	B	SE	t	B	SE	t	
Prudence	-1.80	0.34	-2.23	-1.23	0.41	-1.16	-1.61	0.42	-2.21	-3.794***
Integrity			-5.299***	-1.03	0.41	-.13	-1.36	0.42	-.17	-3.233***
Appreciation of beauty							1.14	0.40	.15	2.852***
Adjusted R ²	.051			.061			.075			
F	28.077***			17.424***			14.493***			

Note: significance levels: * p < .05; ** p < .01; *** p < .001

Table 5.14

Summary of Simple Multiple Linear Regression for Character Strengths Predicting Addictive Behaviour

Character strengths	Compulsive use of internet (n=500)			Alcohol misuse (n=499)			Sexual addiction (n=502)			
	B	SE	t	B	SE	t	B	SE	t	
Curiosity	-	-	-	1.72	0.81	.17	2.11***	-	-	-
Love for learning	3.91	1.22	.21	3.21**	-	-	-	-	-	-
Persistence	-3.60	1.49	-1.19	-2.45*	-	-	-	-	-	-
Integrity	-	-	-	-	-	-	-	-	-	-
Prudence	-	-	-	-1.65	0.63	-1.18	-2.61**	-1.28	0.47	-2.738**
Appreciation of Beauty	-	-	-	-	-	-	-	-	-	-
Spirituality	-	-	-	-1.58	0.59	-1.16	-2.66**	1.14	0.52	-2.317*
Forgiveness	-1.947	.978	-1.991*	-	-	-	-	-	-	2.196*
Adjusted R ²	.028			.072			.066			
F	1.599*			2.605***			2.472***			

Note: Significance levels: * p<.05; ** p<.01; *** p<.001

Table 5.15

Stepwise Multiple Linear Regression on MI-RSWB 48 predicting CIUS (N=485)

Dimensions of RSWB	Model 1			Model 2					
	B	SE	t	B	SE	t			
Forgiveness	-1.50	0.46	-1.15	-3.288**	-1.60	0.46	-1.16	-3.513***	
Sense & Meaning				1.37	0.53	.12	2.594*		
Adjusted R ²	.020			.031					
F	10.810**			8.833***					

Note: Significance levels: * p<.05; ** p<.01; *** p<.001; CIUS – Compulsive Internet Use

In the stepwise multiple regression examining the effect of CS on harmful use of alcohol (Table 5.12), prudence was entered first and explained 4.6% of the variance in harmful use of alcohol. Curiosity was entered second and together they accounted for 5.7% of variance. When spirituality was included they explained 7.9% of the variance. Decrease in prudence and spirituality, and increase in curiosity, were associated with increase in the use of alcohol.

In the case of sexual addiction (Table 5.13), the associated character strengths were prudence, integrity and appreciation of beauty. The model using prudence alone predicted 5.1% of variance in sexual addiction, but together with Integrity this increased to 6.1%, and in the third model together with appreciation of beauty accounted for 7.5% of variation in sexual addiction. Table 5.14 shows a summary of simple linear regression examining the effect of characters strengths across the three types of addictive behaviour.

5.3.4. Dimensions of Religiosity/Spirituality Well-Being (RSWB) and their effect on addictive behaviours

In the stepwise multiple regression examining the effect of the six dimensions of MI-RSWB (general religiosity, forgiveness, hope-immanent, connectedness, hope-transcendent, experiences of sense and meaning) on compulsive use of the internet (Table 5.15), forgiveness was entered first and explained 2% of the variance in CIUS. But when sense and meaning was entered, they together explained 3.1% of variance. Decrease in forgiveness and increase in sense and meaning was associated with increase in compulsive use of the internet.

Table 5.16
Stepwise Multiple Linear Regression on MI-RSWB 48 predicting Alcohol misuse (N=483)

Dimensions of RSWB	Model 1				Model 2			
	B	SE	β	t	B	SE	β	t
Religiosity	-0.93	0.26	-.16	-3.640***	-0.710	0.27	-.13	-2.654***
Forgiveness					-0.606	0.23	-.12	-2.629**
Adjusted R ²			.025				.037	
F			13.248***				10.160***	

Note: Significance levels: * p<.05; ** p<.01; *** p<.001

In the stepwise multiple regression examining the effect of dimensions of MI-RSWB on the use of alcohol (Table 5.16), religiosity was entered first and explained 2.5% of the variance in the use of alcohol. Forgiveness was entered second and

together they accounted for 3.7% of variance. Decrease in religiosity and forgiveness is associated with increase in the use of alcohol. Again in the case of sexual addiction (Table 5.17), the decrease in forgiveness is associated with increase in sexual addiction by 5.1%.

Table 5.17
Stepwise Multiple Linear Regression on MI-RSWB48 predicting Sexual Addiction

Dimensions of RSWB	B	SE	Model 1	
			β	t
Forgiveness	-0.96	0.18	-.23	-5.227***
Adjusted R ²			.051	
F			27.319***	

Note: N=486; Significance levels: * p<.05; ** p<.01; *** p<.001

5.4. Control Variables and Addictive Behaviours: Correlations and Regression

5.4.1. The interaction among control variables

There was a significant positive inter-correlation between all the four dimensions of coping at medium to strong levels. This suggested that the four dimensions are measuring related constructs. Similarly there was a significant but moderate level inter-correlation between anxiety and depression ($r = .309, p < .001$). What was more interesting was that generally there are negative correlations between all styles of coping and depression. On the other hand, there was significant negative correlation between religion and active coping styles and anxiety. Correlations with other styles showed mixed valence and were not significant (Table 5.18).

Table 5.18
Inter-Correlations among Control variables: Coping Styles and Anxiety & Depression

	Coping – Religion	Active Coping	Emotional support	Instrumental support	HADS Anxiety	HADS Depression
Coping - Religion	1	-	-	-	-	-
Active Coping	.532***	1	-	-	-	-
Use of Emotional support	.291***	.444***	1	-	-	-
Use of Instrumental support	.355***	.532***	.664***	1	-	-
Anxiety	-.120**	-.169***	.028	-.025	1	-
Depression	-.170***	-.261***	-.177***	-.130**	.309***	1

Note: Significance levels: * p<.05; ** p<.01; *** p<.001

As pointed out earlier (Table 5.1), three coping styles (positive reframing, planning and acceptance) were dropped due to unacceptable reliability levels (Cronbach's $\alpha < .5$), as also recommended by the author (Carver, 1997). The mean score for BriefCope was not to be used since the subscales include both potentially dysfunctional as well as adaptive coping responses (Carver, 1997), and they are only to be considered in their subscales.

5.4.2. Control variables (coping styles, anxiety and depression) and character strengths

Table 5.19
Correlations between Character Strengths and Coping Styles, Anxiety & Depression

	Coping – Religion	Active Coping	Emotional support	Instrumental support	Anxiety	Depression
CS1. Curiosity/Interest	.102*	.272***	.227***	.220***	-.052	-.258***
CS2. Love for Learning	.159***	.247***	.129**	.149**	-.034	-.119**
CS3. Open-mindedness	.180***	.343***	.210***	.230***	-.138**	-.213***
CS4. Creativity	.106*	.305***	.240***	.229***	-.019	-.135**
CS5. Social Intelligence	.135**	.273***	.262***	.220***	-.037	-.146**
CS6. Perspective	.136**	.301***	.246***	.244***	-.056	-.137**
CS7. Bravery	.075	.244***	.202***	.210***	-.013	-.124**
CS8. Persistence	.161***	.296***	.165***	.174***	-.137**	-.141**
CS9. Integrity	.173***	.259***	.181***	.162***	-.040	-.132**
CS10. Kindness	.169***	.252***	.250***	.211***	-.030	-.239***
CS11. Love	.114*	.235***	.274***	.235***	-.020	-.174***
CS12. Citizenship	.255***	.323***	.252***	.273***	-.133**	-.199***
CS13. Fairness	.168***	.283***	.174***	.217***	-.138**	-.222***
CS14. Leadership	.164***	.290***	.240***	.221***	-.079	-.160***
CS15. Self-regulation	.179***	.287***	.184***	.225***	-.112*	-.097*
CS16. Prudence	.139**	.315***	.160***	.168***	-.149**	-.141**
CS17. Appre of beauty	.088*	.244***	.186***	.170***	.054	-.204***
CS18. Gratitude	.181***	.261***	.200***	.176***	-.092*	-.216***
CS19. Hope	.174***	.298***	.216***	.224***	-.131**	-.252***
CS20. Spirituality	.348***	.306***	.165***	.178***	-.097*	-.105*
CS21. Humility	.112*	.220***	.186***	.189***	-.004	-.105*
CS22. Humour	.106*	.250***	.299***	.255***	-.055	-.226***
CS23. Vitality	.145**	.325***	.226***	.223***	-.080	-.223***
CS24. Forgiveness	.140**	.259***	.155***	.203***	-.141**	-.179***

Note: Significance levels: * p<.05; ** p<.01; *** p<.001.

In the correlation test between the 24 character strengths and the four styles of coping, there was a significant positive correlation consistently across all variables, except that there was no significant correlation between the character strength of bravery and coping using religion (Table 5.19).

While there was a negative correlation between HADS depression and all character strengths, HADS anxiety was correlated with only a minority of character strengths. The character strengths that showed significant negative correlation with HADS anxiety were: open-mindedness, persistence, citizenship, fairness, self-regulation, prudence, gratitude, hope, spirituality, forgiveness (Table 5.19).

5.4.3. Control variables and addictive behaviours

There was a small but significant positive correlation between active coping and compulsive use of the internet, and negative correlation between active coping and the other two addictive behaviours. There was also a significant negative correlation between coping-religion and the use of alcohol. But no significant correlation was observed between addictive behaviours and emotional support and instrumental support styles of coping (Table 5.20).

	Coping – Religion	Active Coping	Emotional support	Instrumental support
CIUS (n=498)	.086	.100*	.073	.049
AUDIT (n=497)	-.105*	-.107*	-.022	-.026
SAST (n=500)	-.069	-.108*	-.003	-.005

* Significance level <.05

There was a small inter-correlation between anxiety and depression measures ($r = .297, p < .001$). While there was no significant correlation between any addictive behaviours and HADS depression, there is significant positive correlation, though small, between the three addictive behaviours and HADS anxiety (Table 5.21).

	Anxiety	Depression
CIUS (n=496)	.180***	-.003
AUD (n=495)	.127**	.051
SAST (n=499)	.219***	.089

Note: Significance levels: ** $p < .01$; *** $p < .001$

Taken together, the correlation between addiction scores and the control variables showed mixed results. Active coping and anxiety showed some consistent negative and positive correlation respectively to addiction scores.

Table 5.22

	Stepwise Multiple Linear Regression for Coping Styles Predicting Addictive Behaviours											
	Compulsive use of internet (n=497)		Alcohol misuse (n=496)		Sexual addiction (n=499)							
	B	SE	t	B	t	B	SE	t				
Active Coping	1.438	.644	.100	-2.232*	-7.53	.313	-.107	-2.403*	-.650	.267	-.108	-2.435*
Adjusted R ²			.008					.010				
F			4.981*					5.776*				

Note: Significance levels: *p<.05; **p<.01; ***p<.001

Table 5.23

	Stepwise Multiple Linear Regression for Anxiety and Depression Predicting Addictive Behaviours											
	Compulsive use of internet (n=495)		Alcohol misuse (n=494)		Sexual Addiction (n=497)							
	B	SE	t	B	t	B	SE	t				
Anxiety	.548	.135	.180	.188	4.059***	.127	.066	2.853**	.276	.055	.219	4.994***
Adjusted R ²			.030					.014				
F			16.475***					8.137**				

Note: Significance levels: *p<.05; **p<.01; ***p<.001

5.4.4. Control variables as predictors of addictive behaviours

In the stepwise multiple regression examining the effect of the four styles of coping (religious, active coping, emotional support and instrumental support) on the three addictive behaviours separately (Table 5.22), across all the three addictive behaviours only active coping showed a predictive association contributing 0.8% to variance in compulsive use of the internet, 1% to variance in harmful use of alcohol and also 1% to sexual addiction. Surprisingly, while active coping is positively associated with compulsive use of the internet, with the other two addictive behaviours it acts as a negative predictor. In general, coping styles were poor predictors of addictive behaviours.

In the stepwise multiple regression examining the effect of HADS depression and anxiety on the three addictive behaviours separately (Table 5.23), only anxiety showed a positive association across the three types of addictive behaviours. Anxiety showed 3% association of variance on compulsive internet use, 1.4% variance on harmful use of alcohol, and 4.6% on sexual addiction.

5.5. Path Analysis: Character strengths as Predictors of Addictive Behaviours

In an attempt to test the conceptual framework that emerged from the literature review, a modified model was tested. Based on the regression tests that have been reported above the following character strengths were chosen as Independent Variables (IV): prudence, integrity, spirituality, and forgiveness (Table 5.14). Persistence was dropped since it was a significant predictor only for compulsive internet use. For forgiveness, the data from the MI-RSWB measure was considered, since this had shown some significant correlation with two of the addictive behaviours. And since compulsive internet use had consistently shown variant and non-significant patterns as compared to the other two addiction measures in terms of its association with character strengths, CIUS was dropped from the model. Harmful use of alcohol and Sexual addiction were chosen as Dependent Variables (DV). Among the Control Variables (CV) active coping (Table 5.20) and anxiety (Table 5.21) were taken into consideration, since they emerged as the most salient in the correlation and regression tests reported above. The path analysis was carried out on five sub-models by running a series of simple linear regression tests. In the first sub-model, prudence, integrity, spirituality,

and forgiveness were entered as the IV, and act-cope as the DV. In the second sub-model, again prudence, integrity, spirituality, and forgiveness were entered as the IV, and anxiety was entered as the DV. In the third sub-model, prudence, integrity, spirituality, forgiveness, act-cope, and anxiety were entered as the IV, and harmful use of alcohol was entered as the DV. In the fourth sub-model, prudence, integrity, spirituality, forgiveness, act-cope, and anxiety were entered as the IV, and sex addiction was the DV. Finally, sex addiction was entered as the IV and harmful use of alcohol was entered as the DV. The results are summarised in Figure 5.5.

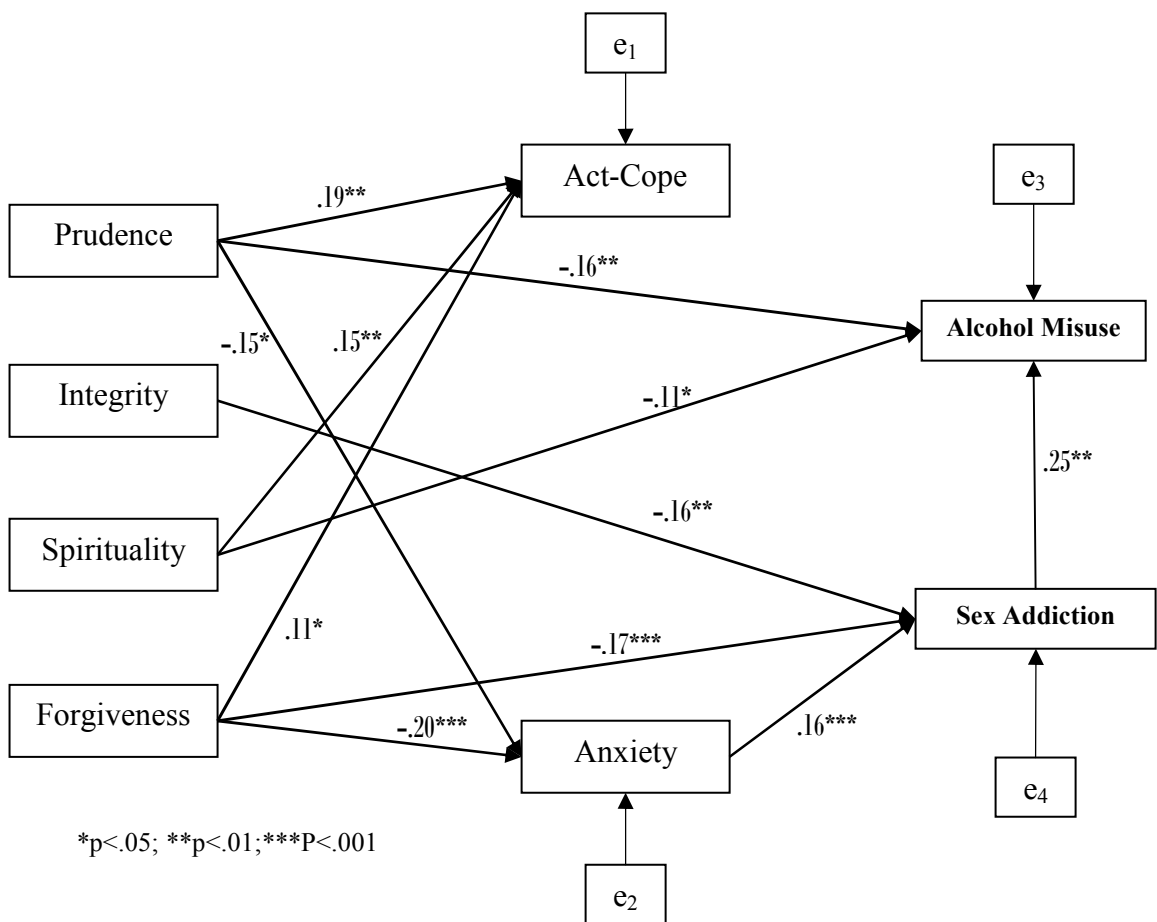


Figure 5.5. Path Analysis examining the role of IV and CV on Addictive Behaviours

In the sub-model predicting harmful use of alcohol, a decrease in prudence and spirituality predicted harmful use of alcohol. Other selected character strengths and the control variables were not significant predictors. However, the fit for the model was very weak (adjusted $R^2 = .08$). In the sub-model predicting sex addiction (Figure 5.5), a decrease in integrity and forgiveness predicted sexual addiction. Other selected character strengths and the coping style were not significant predictors. Anxiety was a

significant predictor. The fit for this model was stronger than the model for harmful use of alcohol (adjusted $R^2 = .13$).

As it has been pointed out, co-efficient values were consistently weak in most of the reported results in this sample data. This is a point for discussion. Even though the selected character strengths had some significant predictive role on the control variables, the impact of control variables on addictive behaviours was not consistently that strong. Only anxiety had some impact on sex addiction. Taken together, the model seemed to be more relevant for sex addiction than for other addictive behaviours.

Table 5.24
Effect of Intervention on Character Strengths
Repeated Measures ANOVA

CS	Intervention conditions	Mean1	SD1	Mean2	SD2	Within subjects Effect		Between subjects Effect	
						Points of measure ¹ F(1, 68)	IC ² F (2, 68)	Intercept F(1, 68)	IC ² F (2, 68)
CS1. Curiosity	Meditation	3.969	.531	4.165	.515	6.619*	.192	6994.2***	1.849
	Life-skills	3.883	.725	4.006	.363				
	Control	4.058	.462	4.284	.341				
CS2. Love for Learning	Meditation	3.617	.654	3.857	.560	3.482	.328	5056.8***	.383
	Life-skills	3.691	.689	3.815	.384				
	Control	3.800	.496	3.885	.528				
CS3. Open-mindedness	Meditation	4.104	.687	4.450	1.33	7.211**	.085	3202.27***	1.278
	Life-skills	3.875	.862	4.110	.429				
	Control	4.020	.469	4.320	.454				
CS4. Creativity	Meditation	4.013	.704	4.117	.637	7.822**	.580	6128.68***	.720
	Life-skills	3.937	.567	4.156	.358				
	Control	4.037	.478	4.338	.433				
CS5. Social Intelligence	Meditation	3.813	.540	4.213	.913	10.993**	.595	5323.86***	1.767
	Life-skills	3.870	.637	4.046	.342				
	Control	4.070	.547	4.331	.374				
CS6. Perspective	Meditation	3.817	.635	4.196	.510	19.190***	.634	6932.70***	4.62*
	Life-skills	3.783	.599	4.012	.360				Life-skills x Control
	Control	4.137	.450	4.362	.295				
CS7. Bravery	Meditation	3.891	.678	4.082	.458	10.000**	.128	5497.08***	1.531
	Life-skills	3.729	.809	4.009	.375				
	Control	3.962	.449	4.233	.462				
CS8. Persistence	Meditation	3.956	.775	4.247	.572		.113	4421.65***	1.253
	Life-skills	3.900	.841	4.189	.504	10.84**			
	Control	4.170	.466	4.380	.478				
CS9. Integrity	Meditation	3.825	.795	4.064	.569	19.39***	.334	5092.50***	1.890
	Life-skills	3.758	.667	4.137	.392				
	Control	4.025	.464	4.331	.342				
CS10. Kindness	Meditation	4.041	.779	4.308	.455	10.310**	.139	5947.08***	1.753
	Life-skills	3.933	.683	4.167	.335				
	Control	4.208	.458	4.385	.425				

CS11. Love	Meditation	4.060	.637	4.382	.426	19.856**	.054	7522.36***	2.937
	Life-skills	3.890	.681	4.173	.361				
	Control	4.141	.495	4.479	.312				
CS12. Citizenship	Meditation	4.038	.743	4.306	.512	10.778**	.503	4071.10***	.869
	Life-skills	3.887	.923	4.365	.940				
	Control	4.200	.534	4.456	.336				
CS13. Fairness	Meditation	4.252	1.11	4.313	.500	2.015	.302	4679.41***	2.318
	Life-skills	4.029	.688	4.272	.475				
	Control	4.420	.694	4.536	.280				
CS14. Leadership	Meditation	4.039	.724	4.295	.439	8.006**	.268	5942.84***	3.001
	Life-skills	4.012	.756	4.203	.476				
	Control	4.350	.384	4.483	.349				
CS15. Self- regulation	Meditation	3.752	.661	4.127	.503	12.281**	.318	4547.90***	1.778
	Life-skills	3.695	.917	3.956	.480				
	Control	3.983	.499	4.204	.393				
CS16. Prudence	Meditation	3.813	.745	4.091	.550	10.118**	.206	4168.86***	.643
	Life-skills	3.716	.801	3.987	.527				
	Control	3.933	.472	4.105	.444				
CS17. Appre of beauty	Meditation	3.856	.654	4.056	.489	7.327**	.047	4862.29***	.717
	Life-skills	3.737	.855	3.927	.400				
	Control	3.865	.497	4.110	.439				
CS18. Gratitude	Meditation	4.094	.774	4.369	.434	12.557**	.055	7502.15***	1.680
	Life-skills	4.070	.615	4.294	.391				
	Control	4.277	.390	4.508	.273				
CS19. Hope	Meditation	4.456	1.33	4.465	.424	.807	.165	4031.45***	1.700
	Life-skills	4.179	.954	4.322	.371				
	Control	4.491	.403	4.620	.310				
CS20. Spirituality	Meditation	3.964	.658	4.304	.424	7.798**	1.687	6368.97***	2.363
	Life-skills	4.045	.669	4.244	.530				
	Control	4.366	.329	4.399	.484				
CS21. Humility	Meditation	3.822	.612	3.921	.512	2.341	.210	5338.27***	2.023
	Life-skills	3.729	.736	3.786	.543				
	Control	3.933	.381	4.100	.339				
CS22. Humour	Meditation	3.982	.781	4.131	.628	4.693*	.147	5038.21***	1.089
	Life-skills	3.904	.625	4.017	.354				
	Control	4.062	.503	4.270	.438				
CS23. Vitality	Meditation	3.873	.637	4.013	.572	5.878*	.094	5712.49***	1.865
	Life-skills	3.876	.651	4.024	.382				
	Control	4.061	.488	4.266	.393				
CS24. Forgiveness	Meditation	3.915	1.40	4.321	1.28	4.325*	.218	2571.62***	.566
	Life-skills	3.833	.693	4.041	.522				
	Control	4.004	.452	4.229	.425				

Note: N: Meditation =23; Life-skills =24; Control =24; Mean1 = before intervention; Mean2 = after intervention;
¹Points of measurement = Pre-and-post intervention scores; ²IC = Intervention Condition

5.6. The Effect of the Interventions on Character Strengths, Addictive Behaviours and Control Variables

As reported earlier, there were three intervention groups: mindfulness (n=23), life-skills (n=24), and control (n=24). There were two points of measurement: first, during the survey, and the second, after the intervention.

5.6.1. Effect of interventions on character strengths

To test the impact of the intervention on character strengths, a 2x3 mixed ANOVA was run on each of the character strengths (Table 5.24). Pre-and post-intervention scores of the character strength were entered as the within-subjects variables with two levels. Intervention condition (mindfulness, life-skills and control) was entered as the between-subjects factor. The results consistently showed a significant main effect on the pre-and-post intervention scores of character strengths. The interaction between pre-and-post intervention scores and the intervention condition was also significant in most of the character strengths, but it was not consistently in favour of any one condition of intervention. Post-hoc Bonferroni tests often showed that the control condition (the group that had no intervention) also produced significant effects in the same direction as the active interventions. This suggests that mindfulness intervention may not have had a statistically significant effect on character strengths compared to the life-skills intervention or the control. This further suggests that the study itself (filling up the questionnaire) could have had some effect on all the groups irrespective of the intervention condition. This is a point for further discussion.

5.6.2. Effect of interventions on coping styles

Another series of 2x3 mixed ANOVAs was run with the two scores of before and after intervention as the within-subjects variables and three intervention conditions (mindfulness, life-skills, control) as the between-subjects factor, for the four dimensions of coping separately: religion, active, emotional support and instrumental support. Table 5.25 reports the mean scores before and after intervention. Figure 5.6 has the plots for all the four coping styles.

	Intervention Condition	Before intervention	After intervention
		Mean (SD)	Mean (SD)
Coping - Religion	Mindfulness	3.0455 (0.9247)	3.5455 (0.6155)
	Life-Skills	3.2826 (0.9247)	3.5000 (0.5839)
	Control	3.3478 (0.7452)	2.9348 (1.090)
Coping - Active	Mindfulness	3.3182 (0.6994)	3.5682 (0.5411)
	Life-Skills	3.2609 (0.7518)	3.3043 (0.5165)
	Control	3.1522 (0.8717)	3.0435 (0.9034)
Coping – Emotional support	Mindfulness	2.8409 (0.8781)	3.3409 (0.7926)
	Life-Skills	3.0000 (0.9045)	2.7609 (0.6006)
	Control	2.6522 (1.016)	2.6957 (0.8221)
Coping – Instrument support	Mindfulness	3.2045 (0.9084)	3.5000 (0.8018)
	Life-Skills	2.9783 (0.8592)	3.0000 (0.7071)
	Control	3.0000 (0.9293)	3.0652 (0.9084)

Coping – Religion dimension: In the 2x3 mixed ANOVA to test the effect of intervention on religious coping, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the Cope-Religion score. The main effect of measurement condition was not significant, $F(1,65) = 0.823$, $p=.368$, $\eta_p^2=.013$. The main effect of intervention conditions was not significant, $F(2, 65) = 0.826$, $p=.442$, $\eta_p^2=.025$. The interaction between the measurement condition and the three intervention conditions was significant, $F(2, 65) = 5.819$, $p=.005$, $\eta_p^2=.152$. Bonferroni post-hoc test showed no significant interaction. The plot shows mindfulness intervention condition having some effect.

Coping – Active dimension: In the 2x3 mixed ANOVA to test the effect of intervention on active coping, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the Cope-Active score. The main effect of measurement condition was not significant, $F(1,65) = 0.366$, $p=.547$, $\eta_p^2=.006$. The main effect intervention conditions was not significant, $F(2, 65) = 1.880$, $p=.161$, $\eta_p^2=.055$. And the interaction between the measurement condition and the three intervention conditions was not significant, $F(2, 65) = 1.032$, $p=.362$, $\eta_p^2=.031$.

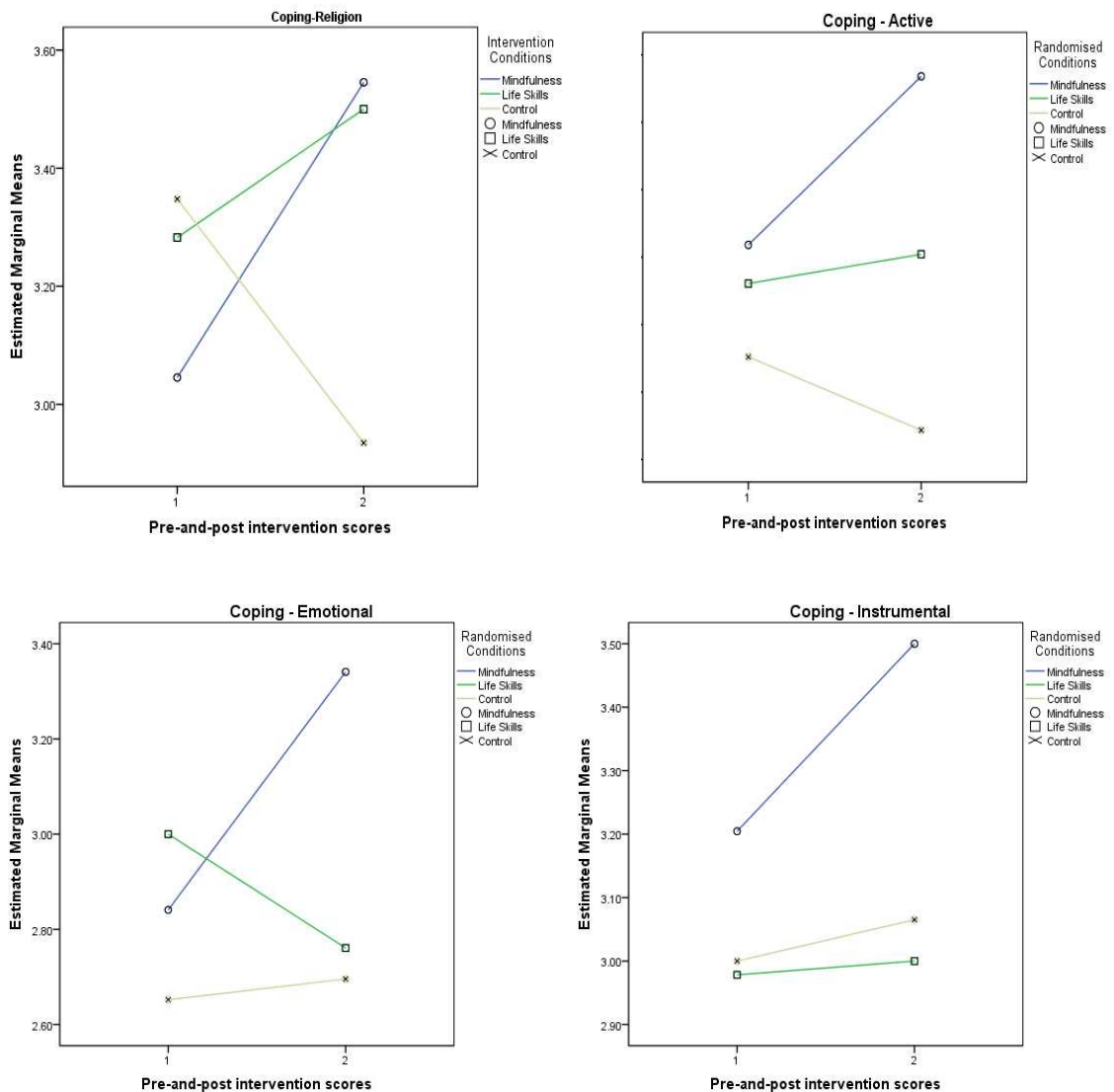


Figure 5.6. Plots of the pre-and-post intervention variation in the four dimensions of coping

Coping – Emotional Support: In the 2x3 mixed ANOVA to test the effect of intervention on emotional coping, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the Cope-Emotional score. The main effect of measurement condition was not significant, $F(1,65) = 0.779, p=.381, \eta_p^2=.012$. The main effect of intervention conditions was not significant, $F(2, 65) = 1.955, p=.144, \eta_p^2=.058$. The interaction between the measurement condition and the three intervention conditions was significant, $F(2, 65) = 3.472, p=.037, \eta_p^2=.097$. The post-hoc Bonferroni Test showed no significant interaction between the three conditions of the intervention. The plot (Figure 5.6) shows the effect of mindfulness.

Coping – Instrumental Support: In the 2x3 mixed ANOVA to test the effect of intervention on instrumental coping, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the Cope-Instrumental score. The main effect of measurement conditions was not significant, $F(1,65) = 1.266, p=.265, \eta_p^2=.019$. The main effect of intervention conditions was also not significant, $F(2,65) = 1.756, p=.189, \eta_p^2=.050$. The interaction between the measurement condition and the intervention conditions was also not significant, $F(2,65) = 0.554, p=.577, \eta_p^2=.017$.

Taken together, as observed from the mean scores and the plots, the mindfulness intervention had some impact on the scores of all the four dimensions of coping. In the religion and emotional coping this has been statistically significant. This is an interesting outcome.

5.6.3. Effect of interventions on depression and anxiety

Two 2x3 mixed ANOVAs were carried out with the scores of anxiety and depression separately. Table 5.26 reports the mean scores before and after intervention; and the plot is found in Figure 5.7. In the 2x3 mixed ANOVA to test the effect of intervention on anxiety, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was anxiety. The main effect on measurement condition was not significant, $F(1,66) = 2.667, p=.107, \eta_p^2=.039$. The main effect on the intervention conditions was not significant, $F(2,66) = 1.399, p=.254, \eta_p^2=.041$. The interaction between the measurement condition and intervention conditions was also not significant, $F(2, 66) = .271, p=.763, \eta_p^2=.008$.

		Before intervention	After intervention
	Condition	Mean (SD)	Mean (SD)
Depression	Mindfulness	4.82 (2.95)	4.32 (3.11)
	Life-Skills	4.58 (2.93)	4.62 (2.72)
	Control	6.13 (3.40)	5.43 (2.02)
Anxiety	Mindfulness	9.14 (4.83)	7.86 (3.98)
	Life-Skills	8.75 (4.08)	7.87 (3.14)
	Control	9.83 (2.69)	9.48 (2.59)

In the 2x3 mixed ANOVA to test the effect of intervention on depression, the within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was depression. The main effect on measurement condition was not significant, $F(1,66) = 0.941, p=.336, \eta_p^2=.014$. The main effect on the intervention conditions was not significant, $F(2, 66) = 1.956, p=.150, \eta_p^2=.056$. The interaction between the measurement condition and intervention conditions was also not significant, $F(2,66) = 0.371, p=.729, \eta_p^2=.010$. In summary, the interventions have had no effect on depression and anxiety.

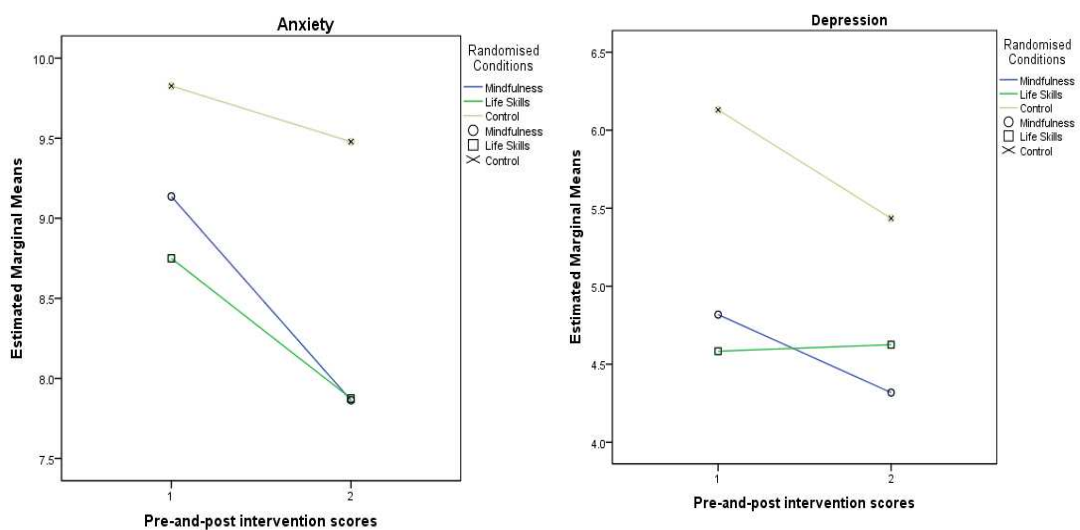


Figure 5.7. Plots of the pre-and-post intervention variation in anxiety and depression

5.6.4. Effect of interventions on addictive behaviours

As stated earlier, the participants of the various addiction factors were grouped together for the intervention conditions. Some of them had scored high on more than one measure for addictive behaviours. However, statistical analyses were undertaken on the scores of individuals who scored above the cut-off point for each of the addictive behaviours separately.

In the 2x3 mixed ANOVA to test the effect of the intervention on the misuse of alcohol, those who scored above the cut-off point of 15 (showing harmful drinking) were selected. The within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness,

lifeskills and control). The dependent variable was the AUDIT score. The main effect of measurement condition was significant, $F(1,12) = 10.735, p=.007, \eta_p^2=.472$. The main effect of intervention condition was not significant, $F(2,12) = 0.529, p=.602, \eta_p^2=.081$. The interaction between intervention conditions and measurement condition was not significant, $F(2,12) = 0.064, p=.938, \eta_p^2=.011$. Table 5.27 shows the mean scores of AUDIT before and after intervention across the three intervention conditions. The scores are plotted out in Figure 5.8. All participants across the experiment conditions had improved their scores in the AUDIT in the repeat measure.

Table 5.27
Mean scores of Alcohol misuse before (Mean 1) and after (Mean 2) intervention

Intervention Condition	N	Mean 1 (SD)	Mean 2 (SD)
Mindfulness	5	20.40 (8.02)	11.80 (11.56)
Like Skills	5	16.00 (3.87)	9.40 (2.30)
Control	5	17.00 (5.96)	9.60 (7.48)
TOTAL	15	17.8 (5.96)	10.27 (7.5)

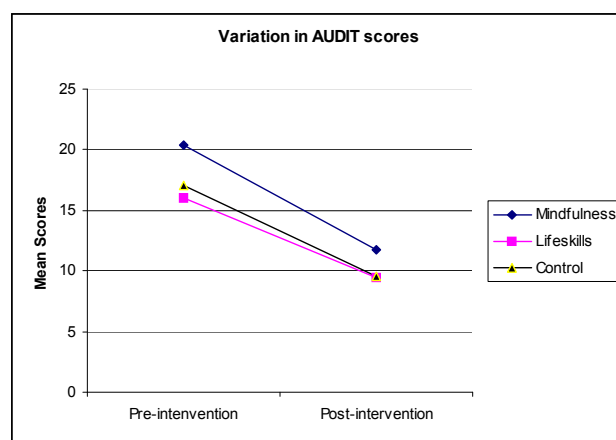


Figure 5.8

Table 5.28
Mean scores of CIUS before (Mean 1) and after (Mean 2) intervention

Intervention Condition	N	Mean 1 (SD)	Mean 2 (SD)
Mindfulness	17	36.00 (8.76)	28.41 (9.60)
Like Skills	18	35.22 (5.40)	28.50 (9.14)
Control	19	34.96 (6.5)	28.54 (8.14)
TOTAL	54	34.96 (6.9)	28.54 (8.8)

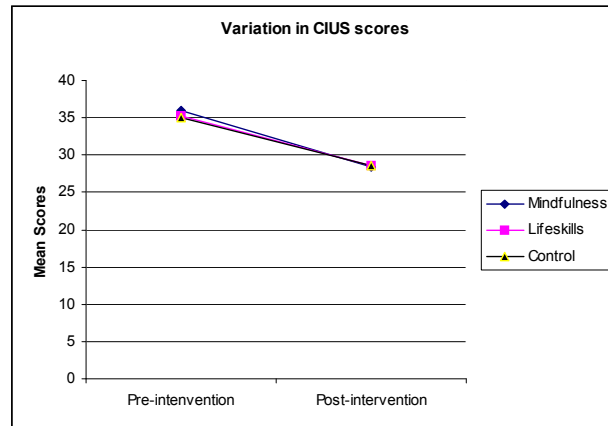


Figure 5.9

To test the effect of the intervention on the compulsive use of the internet from among the participants of the three intervention conditions, those who scored the cut-off point of 28 and above on CIUS were selected for analysis. The within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the CIUS score. The main effect of measurement condition was significant, $F(1,51) = 20.254, p < .001, \eta_p^2 = .284$. The main effect of intervention conditions was not significant, $F(2, 51) = 0.120, p = .887, \eta_p^2 = .005$. The interaction between intervention conditions and measurement condition was not significant, $F(2, 51) = 0.259, p = .773, \eta_p^2 = .010$. Table 5.28 shows the mean scores of CIUS before and after intervention across the three intervention groups. Figure 5.9 plots the scores. Again, the results showed that while all participants have scored less in compulsive internet use in the repeated measure, no group had done better than another and no intervention was better than the other.

To test the effect of the intervention on sex addiction, from among the participants of the intervention conditions, those who scored 13 and above on the SAST were selected for analysis. The within-subject factor was the measurement condition (before and after) and the between-subjects factor was the intervention conditions (mindfulness, lifeskills and control). The dependent variable was the SAST score. The main effect of measurement condition was significant, $F(1,17) = 5.236, p = .035, \eta_p^2 = .235$. The main effect of intervention conditions was not significant, $F(2, 17) = 0.222, p = .803, \eta_p^2 = .025$. The interaction between intervention conditions and measurement condition was not significant, $F(2, 17) = 0.657, p = .531, \eta_p^2 = .072$. Table

5.29 shows mean scores of SAST before and after intervention in the three intervention groups, and Figure 5.10 plots the scores. Just going by the mean scores it is interesting to note that the life-skills intervention had a better effect than the mindfulness intervention, though the variation was not significant (see also Figure 5.10). This is a point for discussion.

Intervention Condition	N	Mean 1 (SD)	Mean 2 (SD)
Mindfulness	7	14.86 (2.12)	13.14 (5.34)
Like Skills	8	14.63 (3.07)	11.25 (5.45)
Control	5	13.60 (.894)	12.60 (1.52)
TOTAL	20	14.45 (2.3)	12.25 (4.6)

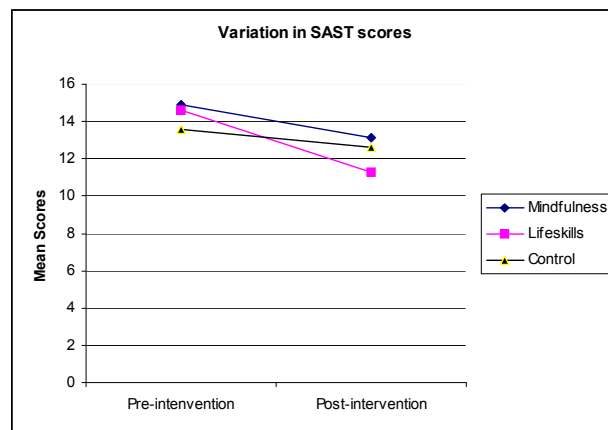


Figure 5.10.

It is also worth noting that though each group for the intervention conditions has between 23 and 24 participants, actually it turns out that when they were considered separately for the each addiction condition the numbers were too small (Tables 5.27 to 5.29). This could also account for the insignificant results, and low η values of effect size.

5.7. Examining the Dynamics of the Christian Mindfulness Intervention: Two Case Studies³

This case study report integrates the quantitative data of the individuals from the questionnaires that they had completed before and after the intervention, together with

³ A poster presentation on these case studies was made at the 6th European Conference on Positive Psychology (ECP), Russia, Moscow, 26-29 June 2012.

the qualitative data collected from their journal entries, a semi-structured interview at the end of the intervention (10th week), and an open-ended email questionnaire nearly 18 weeks after the end of the intervention. All the exchange of communication was in English. Pseudonyms have been used for the purpose of maintaining confidentiality. All quotes used in the case studies report are verbatim and should be understood in the context of English being the participants' second language.

The two participants in the case studies were separately asked the following questions in a 15-minute interview at the end of intervention (in May 2011):

1. What has been your experience in general with the meditation practice in the last ten weeks? (The word 'meditation' was used in the interview, rather than 'mindfulness' or 'contemplation' so as not to make matters seem pedantic to the lay participants.)
2. What actually happens to you when you sit in meditation? Were there any specific experiences?
3. Have you noticed any change in your behaviour after you started the training?
4. What were the challenges that you have faced in these ten weeks in the practice of the meditation?
5. Do you think you will continue to practice the meditation?

In the follow-up email communication the following questions were asked after assuring them of confidentiality and reminding them of their freedom to withdraw:

Would you be able to write a personal account of your experience of the research study that you were involved in? You might want to answer the following questions:

1. What was your experience of life (particularly with the problem of drinking) before you came into the meditation course? (For the female participant it was also pointed out that she had shown some tendency towards sexual addiction, though her scores were below the cut-off point. This was the first and the only occasion when their specific problems were mentioned.)
2. What was your experience during those ten weeks of training?
3. How do you find your life between the end of the training in May and now (June to October)? Has your habit increased or decreased; if increased was there any other reason?

The following case study reports have two levels. In the first step, each participant is separately described and a summary of their experience before, during and after the intervention is reported. In the second step, the focus will be on the character strengths that can be identified in their narratives of their experience of Christian mindfulness vis-à-vis their addictive behaviours.

5.7.1. Participants in the case studies: Before and after the intervention

Martin, 27, male

Martin had scored 30 out of 40 in the AUDIT measure indicating a very high alcohol dependency. The participant had given also personal and contact details, and expressed a willingness to participate in the second phase of the study. Alarmed by the score on the AUDIT and realising that the questionnaire had been completed at a university campus in Nairobi, while contacting the participant via mobile phone to invite him for the intervention, the researcher wanted to check the authenticity of the participant without prejudicing the intervention. Martin generously provided the information that he was not a student but an electrician (a casual labourer hired by a maintenance company) who happened to be doing some maintenance work at the library when the questionnaire was being distributed. Since the envisaged participants of the study were not only students he filled out the questionnaire. He further acknowledged that he had accurately completed the questionnaire. Martin was a Christian, had finished a diploma course, grew up in a township area, earned a monthly salary of between £200 and £500, and was unmarried.

Martin participated in the weekend training and attended all Saturday sessions without exception. During the interview he was forthcoming with information about his drinking habit, alluding to a certain lack of carelessness:

“Most of the time before this er *nini*⁴... event of meditation there were some acts like especially drinking habits, then being some kind of careless in my life.”

He also spoke about his habit of smoking which he had given up during the meditation. Describing his life style before he came into the contemplative practice, he said in the email communication:

“I was addicted to drinking and I could take daily as long as I had cash. During this period I tried to stop at times but I could not manage due to the surrounding and self unawareness.”

Despite his high harmful use of alcohol score, his sexual addiction score was 0; and his compulsive internet score was 29, just above the cut-off point of 28. His anxiety score was nil, and his depression score was 3 out of 21. His coping scores across the four styles were all below the sample mean. His four top-ranked character strengths were (in order of ranking): fairness, leadership, hope, and humour. His least-ranked

⁴ Swahili expression; literally means ‘what’, but here used as gap filler!

character strengths were (in ascending order): appreciation of beauty, persistence, love for learning, perspective, and self-regulation (Table 5.31).

Table 5.30
Summary of scores of the case study participants

	Martin, 22, Male		Edel, 20, female		Scoring Range
	Baseline Score	After intervention Score	Baseline Score	After intervention Score	
CS1 Curiosity	4.30	4.60	4.00	4.20	1 to 5
CS2 Love for Learning	3.20	3.80	3.60	3.60	1 to 5
CS3 Open-mindedness	4.30	4.50	4.40	4.50	1 to 5
CS4 Creativity	4.30	4.50	4.50	4.30	1 to 5
CS5 Social Intelligence	3.90	4.20	4.20	4.50	1 to 5
CS6 Perspective	3.30	4.10	4.30	4.70	1 to 5
CS7 Bravery	4.10	4.50	4.10	4.00	1 to 5
CS8 Persistence	3.20	4.60	4.20	4.00	1 to 5
CS9 Integrity	4.00	4.50	4.44	4.30	1 to 5
CS10 Kindness	4.10	4.50	4.10	4.50	1 to 5
CS11 Love	4.30	4.10	3.90	4.60	1 to 5
CS12 Citizenship	4.30	4.80	3.78	4.30	1 to 5
CS13 Fairness	4.60	4.70	3.70	3.80	1 to 5
CS14 Leadership	4.50	4.40	4.10	3.90	1 to 5
CS15 Self-regulation	3.50	4.20	3.70	3.80	1 to 5
CS16 Prudence	3.60	4.70	4.20	4.00	1 to 5
CS17 Appreciation of beauty	2.70	4.20	4.10	3.90	1 to 5
CS18 Gratitude	3.80	4.80	4.40	4.70	1 to 5
CS19 Hope	4.40	4.90	4.20	4.50	1 to 5
CS20 Spirituality	3.70	4.30	3.50	3.90	1 to 5
CS21 Humility	3.90	3.60	4.00	3.50	1 to 5
CS22 Humour	4.40	4.30	4.10	4.20	1 to 5
CS23 Vitality	4.30	4.30	3.90	4.30	1 to 5
CS24 Forgiveness	3.90	4.50	3.20	3.40	1 to 5
General Religiosity (GR)	5.88	6.00	5.43	5.63	1 to 6
Forgiveness (FO)	5.38	5.75	3.50	4.63	1 to 6
Hope Immanent (HI)	5.63	5.88	5.00	5.50	1 to 6
Connectedness (CO)	4.75	4.38	4.25	5.00	1 to 6
Hope Transcendent (HT)	4.13	2.00	2.38	1.63	1 to 6
Sense and Meaning (SM)	3.75	5.00	4.88	5.88	1 to 6
AUDIT – Alcohol misuse (sum)	30	0	14	5	sum 40
SAST - Sexual addiction (sum)	0	0	7	10	sum 25
CIUS -Compulsive internet use (sum)	29	28	25	34	sum 56
Coping –Religion	2.00	4.00	2.00	3.50	1 to 4
Active coping	2.00	4.00	3.00	3.50	1 to 4
Coping –Emotional support	1.50	3.50	4.00	4.00	1 to 4
Coping – Instrumental support	2.00	3.50	4.00	3.50	1 to 4
Anxiety (sum)	0	3	8	10	sum 21
Depression (sum)	1	5	2	2	sum 21
Mindfulness	2.80	4.80	3.33	3.80	1 to 6
Personal Growth Initiative	3.11	5.56	4.78	5.22	1 to 6

Note: All scores are mean, except those that are indicated as sum.

Table 5.31				
Ranking of character strengths of the participants in the case studies				
Top-Ranked Character Strengths				
Rank	Martin		Edel	
	Before	After	Before	After
1.	CS13 Fairness	CS19 Hope	CS4 Creativity	CS18 Gratitude
2.	CS14 Leadership	CS12 Citizenship	CS9 Integrity	CS6 Perspective
3.	CS19 Hope	CS18 Gratitude	CS18 Gratitude	CS11 Love
4.	CS22 Humour	CS13 Fairness	CS3 Open-mindedness	*
5.	*	CS16 Prudence	CS6 Perspective	*
Least-Ranked Character Strengths				
5.	CS15 Self-regulation	*	CS13 Fairness	CS13 Fairness
4.	CS6 Perspective	CS11 Love	CS15 Self-regulation	CS15 Self-regulation
3.	CS8 Persistence	CS6 Perspective	CS2 Love for Learning	CS2 Love for Learning
2.	CS2 Love for Learning	CS2 Love for Learning	CS20 Spirituality	CS21 Humility
1.	CS17 Appr. of beauty	CS21 Humility	CS24 Forgiveness	CS24 Forgiveness

Note: * not listed as more than one CS scored the same mean competing for that position

During the course of the meditation training, he said, he felt different. He would acknowledge in the interview:

“I no longer er drink alcohol and instead I dislike it. I don’t smoke and when I see somebody who is smoking I try to sympathise with him. Before I thought that it was very impossible, but now-a-days I realise it is er it is possible.”

Later in the email message he mentioned that he had tasted alcohol three times during the time between the beginning of the meditation (11 March 2011) and the last email (10 October 2011). He went on spontaneously to clarify: “Three times above was just tasting and not drinking as I used to do.”

In general, as a result of the intervention Martin talked about a movement from “being some kind of careless in my life” to a situation of taking responsibility: “But now-a-day I always wake up and be concerned and I think a lot about me, my life, where I am going and where I am coming from.” This will be further explored in the context of the dynamics of meditation, character strengths and recovery in Martin. Interestingly, his scores in coping styles had all gone up much above the sample mean in the post-test. When the researcher contacted Martin for the email communication in October 2011, Martin was grateful that he had managed to get a permanent job as an instructor in a technical training institute.

Edel, 20, female

Edel's baseline data through the questionnaire was collected in the context of a church-based youth group. At the time of the intervention she was studying for a Bachelor's degree in Business Administration. She was a Catholic, grew up in urban Nairobi. Her family monthly-income was below £200; and was unmarried.

Speaking about her life before the meditation training, she wrote in the email (dated 13 Oct 2011):

“Before the meditation course i used to go out every weekend to drink with my friends or classmates. It was so serious that on Fridays i was just waiting for classes to end so that i could go clubbing. Sometimes i used to drink even before classed hence just going to chart and interrupt the lecturer. On the basis of sexual behavior, i used to have a boyfriend whom i loved so much but i met another man who was more mature and could treat me the way i wanted by taking me out and being there for me so i started dating two men at a time up to the period of meditation.”

She scored 14 out of 40 in the AUDIT showing risky or harmful drinking and bordering problematic use of alcohol. Her sexual addiction score was 7, below the cut-off point of 13; and her compulsive internet score was 25, just below the cut-off point of 28. Her anxiety score of 8 falling within borderline limits, and her depression score was normal. Her score in the religious coping style was below the sample mean, whereas the scores in the other three styles were close to the sample mean. Her five top-ranked character strengths were (in order of ranking): creativity, integrity, open-mindedness, gratitude, and perspective. Her least-ranked character strengths were (in ascending order): forgiveness, spirituality, love for learning, self-regulation and fairness.

Edel participated in the weekend training and was regular for the Saturday sessions missing only one of them. When asked about her drinking habit, Edel also acknowledged a change in her behaviour showing much enthusiasm during the interview,:

“Since I did the meditation, I have taken alcohol once. That was when we were in a celebration – the Easter celebration – it is once when we took wine. Never taken alcohol again.”

In the same interview when asked, “How do you feel about taking alcohol, now?” She replied:

“Ok, I was taking alcohol in a group of students after coming from class – we go to take alcohol. (louder) But I don't find it interesting now to go, so they are even complaining why I don't go. I never understood why I don't get interested to taking alcohol.”

And did she think it had something to do with her meditation?

“I think, because in the Labyrinth when I was – when they are talking about your worries, I was getting worried why I joined that group. May be sometime I will be addicted or affected by the alcohol. So I talked of my worry, I thought of my worries then threw the stones in the water. So it was one of them.”

Nearly 10 weeks after this interview in the email she wrote:

“My problem of drinking has reduced so much, in fact since the end of meditation have drunk for less than five occasions and only during my friends parties but i have never gone to a club to misbehave since the end of May.”

When she was asked about the increase in her sexual addiction score in the post-intervention test, she attributed that to some specific events in May just prior to the retest:

“It is true that drinking reduced while sexual increased slightly. This is because i was in love with a man ... he was going back to his country in mid May so i really wanted to be with him that time. I felt that i was doing a wrong thing but i could not control.”

Despite this, she said:

“Sexual behaviour has also reduced because since the end of meditation i have engaged myself in sexual behaviour only twice and that was mid-May. I don't even have a man in my life now.”

In general, for Edel the greatest impact of the meditation was on the character strength of forgiveness, which was initially her least-ranked strength. In the next section this will be further explored. By the end of October 2011, Edel was still pursuing her degree programme.

5.7.2. Experiencing Christian mindfulness in terms of character strengths

In terms of character strengths that were significant for them during the training, both the participants seem to have different pathways, yet there are commonalities. Going by the quantitative data of the VIA-IS (Table 5.31) it is easy to point to the change of ranking of character strengths before and after intervention, or the lack of change in the ranking. This ranking must be considered in the light of indications of weak test-retest reliability of the VIA-IS. The qualitative data, in fact, shows a more complex dynamics.

It seems to be the case that for Martin (Figure 5.11) the central issue has been self-awareness (related to the character strengths of personal intelligence and

perspective). He describes his life before meditation as “being some kind of careless in my life” and as he clearly put it in the email:

“During this period i tried to stop at times but i could not manage due to the surrounding and self unawereness.”

But he claims that since he began the meditation, “at least I have been looking at my life in detail...”. Describing the first weekend of training he says,

“When I reached there it was different, it was just bit of silence and knowing much about yourself, so I found myself automatically shaping up like that, so I start from there.”

Later when he evaluates his experience in the email, he says:

“During this period i encountered a twist of life and came to discover myself.”

This strength of self-awareness seems to have a reciprocal relationship with the experience of God, and that in turn links self-awareness to humility. When describing his experience of meditating, he spontaneously came up with the expression, “I feel humbled”, when asked, “Can you say something more about being humbled”, he said,

“When I start meditating, ... (*louder*) I feel like the presence of God, so that I can... I can.. ok I am humbled, in a way that I er, all my feelings are concentrated on God alone. And part of it is reflecting on my life. So I feel like I am, I am not myself, I just feel humbled. You see I don’t know how I can put it, but...”

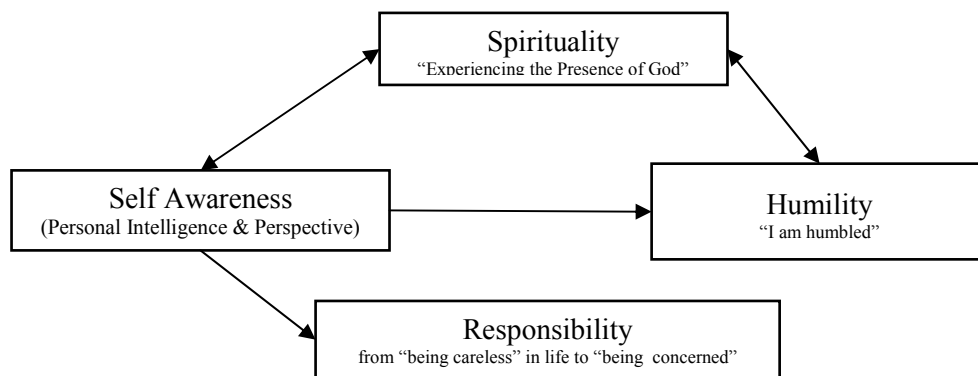


Fig 5.11. Interaction of ‘character strengths’ for Martin

The end result of this process seems to have been for Martin, taking responsibility in life, or as he put it, “being concerned”.

“But now-a-days I always wake up and be concerned and I think a lot about me, my life, where I am going and where I am coming from.”

One concrete expression of taking responsibility was his attendance at a Volunteer Counselling and Testing Centre (VCTC) and getting himself tested for HIV.

When he found the test was negative, he makes an entry in his journal on 17 March 2011:

“I thanked God for this and prayed to get a good girl friend and to stick by her (be faithful) and eventually marry her. The day actually ended well, it was a joyful day.” (The entry “be faithful” within brackets is original.)

As already mentioned, a few weeks after the end of the intervention Martin took up a job as an instructor at a vocational training school, a concrete expression of responsibility.

As for Edel, the pathway (Figure 5.12) is different though there is an inter-play of the self, God and others. For her, the main concern was about controlling her temper which is related to ‘not keeping grudges’ and forgiving, and again these character strengths are associated with experience of God:

“Then I have experienced several changes like I used to be hot-tempered but now something can happen and I just take it. Like there was a day, after the meditation we were doing here, when I was going back to school – it was on a Sunday (sic) my phone got lost that day, and I saw the one – it was woman - running with my phone and I just said: Jesus son of the living God have mercy on her. I didn’t feel anything, I went to school just as usual, I did my exam without... and immediately after two days I got another phone, and so I have experienced several changes in my life in general apart from just the time I am meditating. I can control my tempers now. I don’t hold grudges anymore like I used to. And sometimes if something happens I just say: Jesus son of the living God have mercy on me, or on the person that has wronged me, and I feel I am just relaxed.”

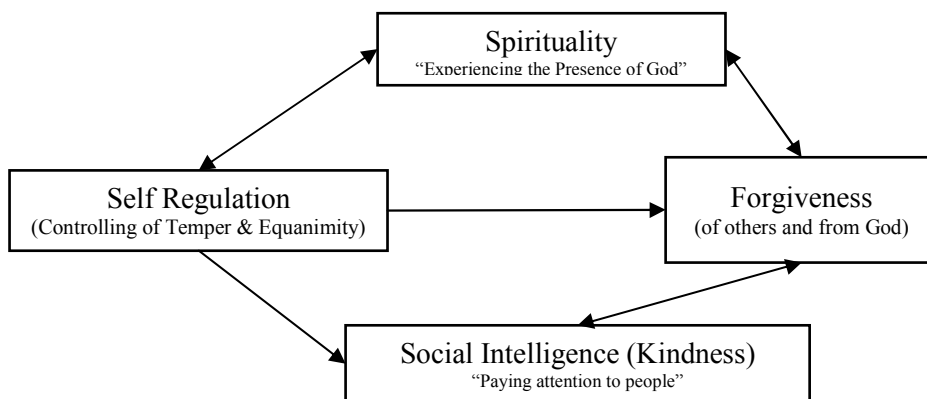


Fig 5.12. Interaction of ‘character strengths’ for Edel

The incident of being robbed of her phone seems to have been an important experience for her, as she repeats it also in the email months later. And she adds:

“This was in contrary to what i used to do before where i used to cry and wish that person all the bad things available on this planet.”

This attitude that she describes above could be termed as ‘equanimity’, which could be related to self-regulation. This will be taken up for discussion in the next chapter.

When asked to “say a little more about this ‘not holding grudges’ as mentioned in the previous quote, she talks about forgiveness:

“Not keeping grudges, ok. I used to, if something happens, if a person wrongs me, I hate that person and hold that grudge for long. Even if you come for forgiveness, I don’t find it easy to forgive you. But now I find it easy to forgive...”

She narrates a telling example in her journal (dated 12 March 2011):

“I was meditating... I started thinking of my sister-in-law who I hated so much and what she did to me that was making me hate her. As I was saying the Jesus Prayer, I said: “Jesus, son of the living God, have mercy on her.” Then I felt like I could talk to her again after a very long time and I chose to forgive her.”

In the interview once again she summarised the aspect of forgiveness and the Jesus Prayer (which was part of the Christian mindfulness intervention) in similar words: “And sometimes if something happens I just say: Jesus son of the living God have mercy on me, or on the person that has wronged me, and I feel I am just relaxed.”

In general then, for Edel, this whole process has helped her to take other people seriously in her life:

“Like if I used to, if a person can talk besides me and if I don’t want to concentrate I just do my own things, or just look at you but don’t listen. Like if you come to quarrel, I used to say: ‘shut down my system’... But meditation has helped me not to ignore people. If you are talking, even if you are telling something that I don’t like I concentrate first and listen and analyse what you are saying after.”

Taken together, for both Martin and Edel, the experience of Christian mindfulness is linked to a better awareness of the self and an improved attitude towards others in terms of responsibility and forgiveness. It appears also that, perhaps given the content of the Christian contemplative practice, these dynamics are linked to their experience of God. This pattern presents an interesting insight for discussion.

5.8. A Summary of Findings

In conclusion to this chapter, I summarise the findings from the quantitative and qualitative data:

- The indicative test–retest reliability of VIA-IS has not been consistently strong for all character strengths (Table 5.2). Only six character strengths (persistence, leadership, prudence, hope, spirituality, and humour) scored Pearson’s r above 0.6. Six other character strengths (curiosity, love for learning, perspective, fairness, appreciation of beauty, and humility) showed no significant correlation between test–retest scores.
- Factor analysis on the VIA-IS yielded a two-factor solution, tending towards one factor. Six of the character strengths (persistence, prudence, self-regulation, fairness, leadership, and love for learning) had primary loading over .6 on Component 1, and five others (love, appreciation of beauty, kindness, gratitude, humility) had primary loading over .6 on Component 2 (Table 5.3).
- The three measures of addictive behaviours examined in the present study show variations in their interaction with other variables of the study. While compulsive use of the internet shows no correlation with any dimension of religious spirituality, harmful use of alcohol shows consistent negative correlation with all dimensions, and sex addiction is negatively correlated to reading scripture and general religiosity (Table 5.8). In their correlation with character strengths compulsive use of the internet is positively correlated to love for learning, whereas all except three character strengths (bravery, love, appreciation of beauty) are negatively correlated to sexual addiction scores at small but significant levels, and 17 character strengths are negatively correlated to scores of harmful use of alcohol (Table 5.9). Taken together, three character strengths emerge as salient to harmful use of alcohol and sex addiction: integrity, prudence and spirituality (Table 5.9). Forgiveness as measured by the Multidimensional Inventory for Religious/Spiritual Wellbeing (MI-RSWB 48) also showed some interesting patterns in its correlation to the three addictive behaviours.
- In regression tests, love for learning emerged as a positive predictor, and persistence and forgiveness as negative predictors for compulsive use of the internet (Table 5.14). Curiosity was a positive predictor, and prudence and spirituality were negative predictors for the harmful use of alcohol. And for sexual addiction, appreciation of beauty was a positive predictor, and prudence and spirituality were

negative predictors. Forgiveness as measured by the Multidimensional Inventory for Religious/Spiritual Wellbeing (MI-RSWB 48) emerged as a consistent negative predictor for all the three addictive behaviours (Tables 5.18 to 5.20). However, the goodness of fit R^2 values for all the regression models are low. In general, the data does show some interesting patterns.

- In summary, there was a partial support for H_1 at least in the case of harmful use of alcohol and sexual addiction, that is, negative correlation was observed between most character strengths and these addictive behaviours. However, the emerging pattern in the correlation between character strengths and addictive behaviour has not been consistent. Therefore, H_2 has not been fully supported.
- The four coping styles selected for analysis (coping-religion, active coping, emotional support and instrumental support) showed significant positive correlation with all character strengths; the only exception being the lack of significant correlation between the character strength of bravery and coping-religion (Table 5.19). Active coping showed significant positive correlation to compulsive use of the internet and significant negative correlation to harmful use of alcohol and sexual addiction. Religion-coping was negatively correlated with only harmful use of alcohol. Other coping styles (emotional support and instrumental support) showed no significant correlation to addictive behaviours (Table 5.20). In regression tests, only active coping emerged as a positive predictor for compulsive use of the internet and negative predictor for harmful use of alcohol and sexual addiction (Table 5.22).
- There was significant negative correlation between HADS depression and all character strengths; whereas HADS anxiety showed significant negative correlation only to open-mindedness, persistence, citizenship, fairness, self-regulation, prudence, gratitude, hope, spirituality, forgiveness (Table 5.19). While there is no significant correlation between any addictive behaviours and HADS depression, there is significant positive correlation between the three addictive behaviours and HADS anxiety (Table 5.21). In regression tests, only anxiety emerged as a positive predictor of all the three addictive behaviours (Table 5.23).
- In the path analysis, a decrease in prudence and spirituality was predictive of harmful use of alcohol. None of the control variables emerged as significant predictors. Similarly, a decrease in integrity and forgiveness was predictive of sexual addiction. While none of the coping styles emerged as significant predictors, HADS anxiety was a significant predictor for sexual addiction (Figure 5.5). Taken

together, at least some character strengths seem to be more significant to addictive behaviour than coping styles and HADS depression. This partially supports H₄.

- It has not been possible to determine statistically the impact of Christian mindfulness intervention on character strengths from the quantitative data, due to perhaps small sample size. Generally, all the intervention groups (mindfulness, life skills and control) show increased mean scores across almost all character strengths (Table 5.24). Similarly, scores in the three addictive behaviours had reduced, indicating improved control over the addictive behaviour. The impact of Christian mindfulness on addictive behaviour was not significantly higher than other intervention conditions (Tables 5.27 to 5.29). H₃ has not been fully supported.
- The mindfulness intervention had no statistically significant impact on anxiety and depression. On the other hand, it had an impact on the scores of all the four dimensions of coping. In the religion and emotional coping this was statistically significant.
- In the reported case studies, the Christian mindfulness intervention appears to have had some impact on perspective, kindness, responsibility, humility, self-regulation, spirituality, and forgiveness. These character strengths were identified in the narrative of the two participants as they recounted their experience of the Christian mindfulness practice and their management of addictive behaviours.

Chapter 6

Discussion

The present study had two research questions:

1. Can the mediators of the association between spirituality and recovery from addiction be identified in terms of the character strengths of positive psychology?
2. Can the identified character strengths be enhanced by a religious-spiritual intervention; and would this in turn be associated with reduction in indicators of addiction?

The second research question is linked to the first. That is, if there are sufficient data to answer the second research question then it would further support the conception that character strengths indeed play a mediating role in the association between spirituality and recovery from addiction. To what extent has the present study answered the research questions? Has the empirical data supported the hypotheses? This chapter discusses the implications of the results of the study. The chapter has five sections. The first four sections deal with the four hypotheses. The fifth section will explore, in a descriptive manner, the insights gained from the case studies. The case studies attempt to bridge the two research questions.

6.1. The Role of Character Strengths in Addictive Behaviour

The first hypothesis of this study stated that, “Negative association between addiction measures and some character strengths will be observed.” The data from the present study showed some support for this hypothesis. Based on the systematic literature review, the following character strengths were predicted as salient character strengths in addiction and recovery: wisdom, integrity, kindness, humility, self-regulation, spirituality, vitality, love, hope, and forgiveness. The multiple regression analysis on the quantitative data from the survey showed some similarity to the list of predicted character strengths. It was assumed that, as all character strengths are positive

in themselves, the salient character strengths would emerge as negative predictors of addictive behaviours. However, the unexpected finding is that at least three character strengths have been shown to be positive predictors of addictive behaviour: curiosity as a predictor of harmful use of alcohol, love for learning predicting compulsive use of internet, and appreciation of beauty to sexual addiction. Even a cursory examination of this relationship could prompt a spontaneous exclamation of agreement. So, could character strengths be positively associated with negative psychological states, such as addictive behaviours? Within the positive psychology literature, Peterson (2006) has pointed out that sometimes the exaggeration of character strengths could contribute to negative valence. For example, exaggerated curiosity, he suggests, could become ‘morbid curiosity or nosiness’; love for learning could become ‘Know-it-all-ism’; and an exaggerated appreciation of beauty could be ‘snoberry’; (interestingly, an online dictionary defines ‘snob’ as ‘a person who imitates, cultivates, or *slavishly* admires social superiors and is condescending or overbearing on others’). Peterson’s suggestions are only provisional. It is not clear, in any case, when a strength really becomes an exaggeration. What is the threshold? And does an exaggeration always imply a negative outcome? On the one hand, the data from this study calls for a systematic examination of the common-sense assumption: “Doesn’t it make sense that curiosity should be a positive predictor of the harmful use of alcohol, or love for learning be a predictor of compulsive use of internet?” On the other hand, this suggests that the schema and the constructs of Values in Action are still a work in progress (Peterson & Seligman, 2004).

As negative predictors, persistence was significantly related to compulsive use of the internet, integrity was associated with sexual addiction, spirituality to harmful use of alcohol, prudence to both alcohol and sex addiction, and forgiveness to compulsive use of the internet (Table 5.14). Integrity, spirituality and forgiveness were among the predicted character strengths following the literature review reported in Chapter 3. In another measure of the character strengths (MI-RSWB), forgiveness emerged as a negative predictor for all the three addictive behaviours (Table 5.15 to 5.17). Forgiveness also featured much in the case studies, particularly in the female participant, Edel. Forgiveness is receiving increased attention within addiction research (Webb & Trautman, 2010; Worthington, Mazzeo, & Kliwer, 2002). Worthington and colleagues (2002) have suggested that the lack of forgiveness may contribute to maladaptive coping response, and this in turn may act as an antecedent to addictive behaviour. This conceptual proposal has been partially supported by the present data.

In the path analysis (Figure 5.5), forgiveness is positively related to active coping, and negatively related to anxiety, while anxiety emerged as a positive predictor for sex addiction. Despite Webb's (2011) claim that forgiveness still remains much unexplored within intervention-based research, it features very strongly in the 12-step programme of the Alcoholics Anonymous (Bristow-Braitman, 1995; Lyons, Deane, & Kelly, 2010). The understanding of forgiveness in the literature of AA includes aspects of self-forgiveness, forgiving others, seeking forgiveness from others, and the experience of being forgiven by a Greater Power.

Integrity was another of the character strengths that was predicted by literature review as being salient and was supported by the quantitative data. Similarly, the prediction of humility and kindness has been supported by the case studies (Table 6.1). Integrity, understood to imply a self-consistent moral self, honesty, wholeness and general character, has been associated with recovery from addiction in previous studies (Blakeney, Blakeney, & Reich, 2005; Galanter, 2007; Marcotte, Margolin, & Avants, 2003; Swora, 2004). Kindness too featured much in the literature review of spirituality and recovery from addiction. Kindness was understood in previous literature as "contributing to the community" (Hazel & Mohatt, 2001, p.554), sense of belonging (Kogan, Luo, Murry, & Brody, 2005), and "escape from self-absorption" (Zemore, 2007, p. 448). In the present study, both participants in the case studies expressed increased sensitivity to others and the desire to take responsibility for others. The role of humility in recovery will be discussed later in this chapter.

Though self-regulation as a character strength of temperance was predicted to be a negative predictor of addiction, the quantitative data did not show any support (Table 6.1). However, in the case studies self-regulation featured (Figure 5.12), as being control of temper. Edel (the female participant) said, "...so I have experienced several changes in my life in general, apart from just the time I am meditating. I can control my tempers now." Interpreting her statement from the context of being robbed of her mobile phone, I preferred to term it as, 'equanimity'. Interestingly, in the Spiritual Self Schema (3-S) Therapy that is used to facilitate recovery, one of the dimensions in which recovering addicts are trained is equanimity (Avants, Beitel, & Margolin, 2005). On the other hand, as Baumeister (2012) points out, self-control in one area of behaviour could have extended effect in another area. Therefore, controlling one's temper, as in the case of Edel, could have an effect also in self-control associated with recovery. This needs independent verification.

One surprise in the list of negative predictors emerging from the present data was prudence. Prudence did not feature in the list of salient character strengths in the literature review, but in the quantitative data it emerged as a negative predictor for the harmful use of alcohol. During the qualitative analysis of literature, it is possible that prudence got enmeshed with perspective or wisdom. According to Peterson and Seligman (2004) prudence consists in being aware of the consequences of one's choices, and developing strategies in self-management so as to move towards the achievement of one's goals. On the other hand, wisdom is closely related to self knowledge, meaning of life, and being able to use the right judgement in relationships. It is not difficult to notice some overlap in this definition. Nonetheless, VIA-IS measures prudence and perspective distinctively. As for the role of prudence in addiction recovery, it remains an unexplored area in addiction research in general.

6.2. On Understanding and Measuring Character Strengths

Table 6.1.
The Mediating role of character strengths in addiction and recovery

From Literature Review	From Regression Analysis Quantitative data	From the Case studies Qualitative data
--	Curiosity (+)	--
	Love for learning (+)	
	Appreciation of Beauty (+)	
Perspective (Wisdom)	--	Perspective (Self-awareness)
--	Prudence	--
Integrity	Integrity	--
Kindness	--	Kindness (Social intelligence)
--	--	Responsibility (Citizenship)
--	Persistence	--
Humility	--	Humility
Self-Regulation	--	Self-regulation
Spirituality	Spirituality	Spirituality (God, faith)
Vitality	--	--
Love	--	--
Hope	--	--
Forgiveness	Forgiveness	Forgiveness

The second hypothesis (H₂) stated, “A pattern will be discernible in the association between character strengths and addictive behaviour.” The rationale for this hypothesis was that once the salient character strengths are discerned, especially if consistent with those that were identified in the literature review, then a generic

construct could be proposed, and interventions could be better thought out. And eventually, a robust model could be evolved on the basis of the pattern and its relation to recovery. This hypothesis was assessed by means of several statistical tests in the present data: the correlation between character strengths and addictive behaviours (Tables 5.9), by means of Stepwise and Simple General Linear Regression with character strengths as independent variables and the three addictive behaviours as dependent variables (Tables 5.14 to 5.17), and finally through Path Analysis to propose a model (Figure 5.5). As summarised in the conclusion to the last chapter, this hypothesis has not been fully supported by the data. The outcome of the survey showed a list of salient character strengths that was different, to a large extent, from the one that emerged from the literature review. Integrity, forgiveness and spirituality featured in both lists. When the list from the quantitative data is merged with that of the case studies, there is a greater correspondence (Table 6.1). Perspective, kindness, humility and self-regulation are the additional character strengths from the case studies. It was predicted that there would be two groups of character strengths based on their association with addiction and recovery. In fact, three possible groups have emerged from the data: positive predictors of addictive behaviours, negative predictors of addictive behaviours, and those that are not relevant to addiction. In any case, why has the pattern of character strengths emerging from the empirical data not been consistent? In this section I discuss some plausible reasons.

Limitation of the VIA-IS

The first question that needs to be posed is: how robust was the VIA-IS as a measure? To begin with, the VIA-IS has shown high reliability. The general practice in research lab write-ups is to report Cronbach's alpha as a measure of internal consistency (reliability) of a scale. In brief, the Cronbach's alpha measures the inter-correlations among test items by comparing the average variance in the whole measure against the variance in each item. Therefore, if you had 10 items to measure a construct, and if you phrased all the items in one direction, say positive, with very similar wordings, the Cronbach's alpha would be high. See for instance, three items from among the 10 items in VIA-IS that measure forgiveness:

- 096. I always allow others to leave their mistakes in the past and make a fresh start.
- 144. I am always willing to give someone a chance to make amends.
- 192. I am usually willing to give someone another chance.

This is likely to produce a high Cronbach's alpha, but there is also the possibility of response bias or response-set, whereby the participants tend to mark the questionnaire without actually reading its content.

On the other hand, if you included various items that are conceptually related to the construct, and you reverse every other item as, for instance, the Hospital Anxiety and Depression Scale (HADS) does:

4. I can laugh and see the funny side of things.
10. I have lost interest in my appearance.
14. I can enjoy a good book or radio or TV program.

Then the Cronbach's alpha is likely to be lower.

This is clearly noticed in the present study. The VIA-IS scored a Cronbach α of .967; and HADS – Depression .567. VIA-IS could have a high reliability score because most of its items are phrased similarly and positively; sometimes they are phrased negatively but not reversed (Peterson & Seligman, 2004, p.628). In any case, could its validity be as robust as its reliability?

The conceptual validity of at least some of the character strengths as measured by VIA-IS has been demonstrated to some extent in the present data. As mentioned on page 135, the MI-RSWB (Unterrainer et al., 2010) was used in this study as an alternative set of measures for some of the character strengths, and this can be drawn on in evaluating the validity of the VIA-IS. When a correlation test was run between the 24 character strengths of the VIA and the six dimensions of the MI-RSWB, except the dimension of hope-transcendent all other dimensions are significantly and positively correlated with most of the character strengths (Table 5.5). Of particular importance is the correlation between three pairs of variables as measured by both instruments: between CS-hope and the hope-immanent, between CS-spirituality and connectedness, and between forgiveness dimensions. They all show significant correlation above .3 levels. This could be furnished as a modest support for the validity of at least these character strengths, notwithstanding the problem of the factorial character and the lack of the discrete nature of the VIA.

What about the test and retest reliability of the VIA-IS? Peterson and Seligman (2004, p.631) claim that “test-retest correlations for all scales over a 4-month period are substantial ($>.70$)....” More recently, a published work reporting the German version of VIA-IS (Ruch et al., 2010) has shown high stability in a German population across nine months (median test-retest correlation = .73). In the present study, test-retest scores in a period of three months for the control group (n=24) has shown significant correlation on 18 out of 24 character strengths, and the Pearson's r values ranged from 0.442 to

0.748, with only six of the character strengths scoring $r > .6$. These character strengths were persistence, leadership, prudence, hope, spirituality, and humour (Table 5.2). Six other character strengths (curiosity, love for learning, perspective, fairness, appreciation of beauty, and humility) showed no significant correlation between test–re-test scores. Considered together, the test and retest reliability in the present data-set has not been commendable. In general, the discussion on the stability of the VIA-IS over time seems very complex. How do we reconcile the claim of the test-retest reliability of the VIA-IS and the malleability of character strengths (see also page 43): that growth in character strengths could be facilitated through events in the larger society like “September 11” (Peterson & Seligman, 2003), by particular life-events like illness and trauma (Peterson, Park, & Seligman, 2006; Peterson, Park, Pole, D’Andrea, & Seligman, 2008), by positive interventions (Linley, Willar, & Biswas-Diener, 2010), and by taking the VIA-IS survey online and identifying the Top 5 strengths (Seligman, Steen, Park, & Peterson, 2005)?

Continuing our discussion on the research question, one way of determining patterns in a set of variables that are measured by means of the same instrument is through factor analysis. The factor analysis for the 24 character strengths in the present data-set (Table 5.3) yielded two factors that strongly tend towards a one-factor solution, because the first factor explained 55.9% of the variance, the second factor 4.3% of the variance, and together they explained 60.2% of the cumulative variance. The tendency for a one-factor solution has been supported also by the strong inter-correlation observed between the character strengths (Table 5.4). In any case, even the two factors did not show any significant difference in their correlation to addictive behaviour.

Generally, the five higher order virtues model proposed in the catalogues of character strengths (Table 2.1) has not been empirically supported (Macdonald, Bore, & Munro, 2008), and even Peterson and Seligman (2004) concede this. On the other hand, previously reported findings of factor analysis on the VIA-IS have been less consistent. Peterson and Seligman (2004, p.632) came up with a five factor model:

- strengths of restraint (fairness, humility, mercy, prudence)
- intellectual strengths (e.g., creativity, curiosity, love of learning, appreciation of beauty)
- interpersonal strengths (e.g., kindness, love, leadership, teamwork, playfulness)
- emotional strengths (e.g., bravery, hope, self-regulation, zest)
- theological strengths (e.g., gratitude, spirituality).

It is interesting to note that Peterson and Seligman (2004) do not report the full findings of the factor analysis, and keep the descriptions of the factors vague by citing examples rather than the full list of character strengths for each factor. Similarly, Park and Peterson (2004) report a five factor solution with the following dimension names: Conative strengths, emotional strengths, cognitive strengths, interpersonal strengths, and transcendence strengths. Again elsewhere, Peterson, Park, Pole, D'Andrea, and Seligman (2008), propose another set of dimensions with a five-factor solution: Interpersonal, fortitude, cognitive, temperance, transcendence. Ruch and colleagues (2010) also propose the five-factor model based on the German version of the VIA, which is close to the one proposed by Peterson and Seligman (2004), as one among many possible solutions in spite of the fact that in the five-factor model several character strengths had cross-loadings across factors.

Besides this five factor model, there are also other possible solutions proposed by various researchers. In a well reported work, Macdonald, Bore and Munro (2008), having tried various methods of factor extraction, suggest both a one-factor and a four-factor solution. "The four factors were tentatively labelled: Positivity, Intellect, Conscientiousness and Niceness." They also point out the loose resemblance between these four factors and the Big-Five Model of personality. Similar to this work is the one by Brdar and Kashdan (2010). They report that a four factor model (Interpersonal Strengths, Vitality, Fortitude and Cautiousness) explained 60% of the variance; and one large, over-arching factor explained 50% of the variance. Yet another reported work (Shryack, Steger, Krueger, & Kallie, 2010), which used multiple criteria to determine the dimensionality of the VIA character strengths in an adult sample, revealed that a three- or four-dimensional model best fit the data. Finally, in an unpublished doctoral dissertation, Karris (2009) suggests that the 240 item VIA-IS could be best described as having 53 latent factors rather than 24 dimensions. This simply points to the haziness of the VIA-IS.

Given the issue with the factorial structure of the VIA-IS, why was it chosen as the principal instrument to measure the independent variables in the present study? Firstly, the VIA presents a theoretically coherent conceptual framework to study the association between spirituality and recovery, with the promise of measurability, as it has been discussed in Chapter 3. Secondly, most of the empirical research reports quoted above were published after 2009 when the present project was first proposed. In any case, one of the objectives of this study as stated in H₂ was to identify a set of character strengths that would be relevant in the context of spirituality and recovery, as

it looked promising in the literature-review. However, the patterns emerging from the quantitative data have not been sufficiently robust to support a neat conceptual model. In concluding the remarks on this, it could be asked, how viable has been the VIA for the subject of the study of this dissertation project? The above discussion suggests that generally the framework of character strengths is still conceptually helpful and attractive to address the question of the relationship between addiction and spirituality. This is also supported by the case studies. Nonetheless, the Values in Action- Inventory of Strengths (VIA-IS) as it stands now, may not have been the best measurable tool to address the question. The following sections add more insight to this supposition. This discussion points to the need for alternative measures for the Values in Action. It is hoped that the data from this project and the emerging discussion could pave a way for the evolution of an alternative comprehensive but shorter paper-and-pencil test on character strengths.

Cross-Cultural differences

A second possible reason for the lack of emerging pattern in the character strengths in the present data could be attributed to its cross-cultural nature. Most of the participants in the reviewed literature were of American or European origin, though some of them were Afro-Americans (for instance, Brown, 2006). When these findings are compared with the data from Africa the scenario seems to be different. In addition, as it was pointed out while reviewing the instruments of measure the online version of the VIA-IS has been previously used among international samples. In a much cited study, samples were drawn from 54 nations, including four in the African continent (Park, Peterson, & Seligman, 2006). However, it is important to note that these results are based on data collected online, which could be largely from self-selected samples, and besides, the samples from the African nations were very small. As stated earlier, for lack of other comprehensive measures of the 24 character strengths a pencil and paper version was used in the present study.

To improve the process of assessing character strengths, Park and Peterson (2007) have recommended that “Samples of research participants from different cultures should be studied, the equivalence of measures should be demonstrated, and constructs of concern should not just be exported (from Western cultures to elsewhere) but also imported (from elsewhere to Western scholarship)” (p.294). What the present data from the African sample seem to suggest is that when measures are transferred to new cultures away from where they were originally validated then variations begin to

appear. For instance, one practical issue that the researcher has become aware of in the present study, purely by observing the reactions of the participants while they completed questionnaires, was that undergraduate students in Kenya may not be as used to answering research questionnaires as are their counterparts in the Western nations. Even interpreting the concept of continuum implied in the Likert scale could offer some difficulty in some cultures (though this point needs to be verified independently). So, could we say the solution is not to use such measures? Then the problem is research projects using other methodologies may not easily be accepted for publication in Western academic journals, and this will still leave a gap in human knowledge. Another solution could be to avoid self-reported questionnaires, and use a schedule method of collecting data on questionnaires through interviews. This has its financial implications. Underlying all this could be a deeper difference in approaches to reality itself. For instance, a recent cross-cultural study by Broesch and colleagues (2011) that used the classical Mirror Self Recognition test (MSR test or Rouge test) –that identifies a child’s ability to recognise the reflection in a mirror as his or her own – raises many questions. In the Western societies, by 18 months, approximately 50% pass the test, and by 24 months more than 70% are reported to touch or remove the mark from their own body. Similarly, Costa Rican children pass the test by more than 50%, compared to Cameroonian children (less than 4%). The latest study shows that in Kenya only 2 out of 82 children passed, and in Fiji no children passed the test. Does this show a lack of self-recognition or unfamiliarity with mirrors? Or, does it suggest, as the researchers point out, “that there are profound cross-cultural differences in the meaning of the MSR test, questioning the validity of the mark test as a universal index of self-concept in children’s development.” The present study raises similar questions, and these questions could be raised only when the research has been carried out and when we have the data for discussion.

6.3. Character Strengths as Mediators in Mindfulness Facilitated Recovery

The third hypothesis of the research project (H₃) had two parts and it was stated thus: “The character strengths can be enhanced through a targeted religious-spirituality intervention; the intervention will be associated with indicators of greater recovery rate than the life-skills and control conditions.” The ANOVAs on the quantitative data do not show significant support for this hypothesis. On the other hand, the mean scores of

character strengths generally show increase and addiction scores show consistent decrease in the variance between before and after intervention. This variance was statistically significant across the three measures of addiction. But why the Christian mindfulness did not work any better, or any worse, than life skills or control conditions? I would furnish three points of discussion.

Small Sample Size

Let me begin with a statistical reason. As shown by the effect size, the weak statistical significance could be due to the fact that the number of participants with the three addictive behaviours finally happened to be too few across the three groups of the intervention conditions. For instance, among the 77 participants in the intervention phase, only 15 participants had scored above the cut off point of 15 on AUDIT, showing harmful drinking (Table 5.27). A post hoc power analysis revealed that on the basis of the mean and the between-groups comparison effect size observed in the present study ($d = .36$), approximately 45 participants would be needed to obtain statistical power at the recommended .80 level. For other addictive behaviours even bigger sample size would be required. This offers a valid reason for the lack of statistically significant results in difference between the intervention conditions.

Dynamics of completing the VIA-IS

The improved scores in character strengths and decreased scores in the three addiction measures across the three intervention conditions including the control group are interesting. It could be hypothesized that taking the measures itself had an effect in this study as it has been also been reported in a previous study (Seligman, Steen, Park, & Peterson, 2005). That is, given its content, the VIA measure could have produced some subjective wellbeing and improved character strengths. If this was indeed the case, then why did it have an effect only on the VIA and not on the dependent variables (addiction scores), because paired-sample t-tests showed that the difference between the mean scores of character strengths from the two points of measurement for the control group ($n=24$) was significant for all character strengths, except for love for learning, fairness, and spirituality. However, paired-sample t-tests on the mean scores of the three addiction measures for the control group ($n=24$) showed that there was no significant difference between the two points of measurement. Practice effect and reactivity effect could be attributed to this phenomenon. ‘Practice effect,’ refers to the possible improved performance in completing the repeated questionnaire. To the best

of my knowledge there is no reported evidence of practice effect or reactivity effect of VIA. The present data-set suggests that the VIA-IS is more susceptible to practice effect as compared to addiction measures. This has to be taken together with the points that have emerged from the discussion on test-retest reliability of the VIA-IS.

Reactivity effect occurs when participants consciously alter their performance because they are being observed or they spontaneously respond to the contents of the measure. This is also related to ‘social desirability bias’. It occurs when participants answer questions in a manner that will be favourable in front of others. Park and Peterson (2007) have pointed out that social desirability is common in studies examining character strengths. Within general psychology the reactivity effect is a much discussed topic (French & Sutton, 2010, 2011). For instance, completing questionnaires has been reported to be responsible for increased anxiety and thus skewing the scores of anxiety measures particularly when they are placed towards the end in a collection of measures (Johnston, 1999). Taking the alcohol screening test itself has been reported to have had the positive effect of decreased alcohol consumption even after three months (McCambridge & Day, 2007). This has not been the case in the present study. On the other hand, completing a battery of emotion measures has been shown to contribute significantly to reduced depression scores (Sharpe & Gilbert, 1998). The effect of taking emotion measures could be likened to the effect of taking the VIA – which has 240 items, and could be a wholesome 45 minutes of intervention, setting the participants reflecting on their character strengths, consciously or unconsciously. As cited earlier, Seligman and colleagues acknowledge that taking the VIA-IS survey itself could act as a positive intervention (Seligman, Steen, Park, & Peterson, 2005).

While it cannot be established that a reactivity-effect is what has happened in the present study, neither can it be totally ruled out. It will be valuable to examine this effect independently in future studies.

Overlap between character strengths and life skills

The life skills training that was chosen as a comparative condition turned out to have directly addressed several character strengths. It needs to be recalled that the four trainers (two each for each type of intervention) were blind to the hypotheses and the background of the participants. They did not even know that the participants were exhibiting any addictive behaviour. The trainers of the Christian mindfulness were given the manual as in the Appendix B and were instructed through two weekends in

the use of the manual. During the intervention they had to only play the CD for the contemplative practice and take the participants to the labyrinth. The only part where their input was needed was in the training of mindfulness journaling; this they did by following the guidelines in the manual. For the life skills training, two trainers were hired. The researcher had no control over the contents of the life skills training. A Non Governmental Organization (NGO) that is involved in training youth in life skills particularly in the context of HIV prevention provided the trainers (Life Skills Promoters, Kenya). The only thing that was ensured by the researcher prior to the intervention was that there was no direct spiritual content in the life skills training, and generally they were just activity based. The curriculum description (see Appendix C), summarised here, had the following significant contents.

Life skills are psycho-social abilities that one acquires to help deal effectively with daily challenges. There are 3 categories of life skills:

- 1) Life skills of knowing and dealing with oneself - self awareness, self esteem, coping with emotions, coping with stress;
- 2) Life skills of living and dealing with others - negotiation skills, empathy, friendship formation, interpersonal relationships, effective communication, peaceful conflict resolution, peer pressure resistance, assertiveness;
- 3) Life skills of effective decision making: decision making, problem solving, critical thinking, creative thinking.

These skills are passed on to participants with a set of foundational constructs called: “Living Values” (LV). According to Arweck and Nesbitt (2004a, p.248), “The programme material is based on 12 values: peace, respect, love, tolerance, honesty, humility, cooperation, responsibility, happiness, freedom, simplicity and unity. Those who designed and promote the LV programme consider these values to be universally acceptable and believe that they should be promoted in individuals in order to make the world a better place eventually.” They further point out that the development of this programme was influenced by the Brahma Kumaris World Spiritual University (BKWSU), an organization which was founded in the mid-1930s in India and has spread since the late 1960s to many other countries (Arweck & Nesbitt, 2004b). The work of the first training manual is attributed to Tillman (2000a, 2000b), and the theoretical framework for the manual is further explored by Tillman and Quera Colomina (2000). It is not difficult to see the parallels between the list of living values and the character strengths, even if the correspondence is not total. Even though the specific contents target coping skills, the LV is very much related to character strengths.

This perhaps could account for the overlap in the outcome of the two types of intervention. Even so, there was a basic difference between the life skills intervention and the mindfulness intervention. Life skills training was explicit with talking and doing exercises about the LV, whereas in the mindfulness training there was no explicit conversation about the character strengths. The labyrinth intervention had exercises which were related to some character strengths, but there was no explicit theorizing on them. Generally, the Christian mindfulness intervention was about silence, contemplation and ‘centring’. Finally, since the life skills trainers were professionals they may have been better at the non-specific interpersonal therapeutic aspects including client receptiveness. This may also have been enhanced by the fact that they were not relying on a manual, while the trainers in the Christian mindfulness intervention had less experience in the technique. These factors may have influenced the outcome.

Three points of importance can be drawn from this. First, often the effect of AA on recovery is attributed to elements of social support (Groh, Jason, & Keys, 2008; Rush, 2002). This could be partially supported by the indicative positive results produced by life skills training, particularly on recovery from sexual addiction, even if this was not statistically significant. Secondly, it is possible that the initial effect of mindfulness intervention on sexual addiction could be complex given that it calls for greater silence and self-awareness, and this might contribute to increased fantasy and sense of guilt. However, in due course mindfulness intervention seems to have an overall positive impact. This may be illustrated with some qualitative data from the participants which are not included in this report. Here is an extract from a 23-year old female participant, who wrote in an email communication in the follow-up study, nearly five months after the end of the intervention:

Before coming into the meditation course, I particularly found myself occupied with my sexual desires and thoughts. After slowing down in physical exercises because of the work load in college, it has become more difficult to control my line of thoughts and fantasies. However, even after meditation this has not changed at all, I still find myself occupied in thoughts on my sexual feelings and desires, the meditation helped me to realize this acutely and find a solution, I played more and that line of thoughts was more controllable.

Thirdly, therefore, the integration of life skills training combined with mindfulness training could offer even more robust results, confounding the possible negative effects of mindfulness training that might occur especially in the beginning, while enhancing and deepening the effects of life skills training. The examination of this case needs a systematic experiment based study.

6.4. Coping, Anxiety and Depression vis-à-vis Character Strengths and Addiction

In the present study, measures of coping styles were used as control variables for character strengths, and anxiety and depression were used as control variables for addictive behaviour. Hence the fourth hypothesis was stated thus: “Any observed reduction in addiction scores will not simply be explicable in terms of a reduction in anxiety and depression, and any enhancement in character strengths will not be explicable in terms of enhanced coping styles.” The basic presupposition underpinning this hypothesis was that character strengths are better predictors than coping styles for addictive behaviour, and that a lack of character strengths is a better predictor for addictive behaviour than anxiety and depression. And if mindfulness intervention had a better impact on character strengths and addictive behaviour as compared to its effect on these control variables then the mediating role of character strengths in addiction recovery could have been better demonstrated.

Altogether seven styles of coping were measured; three were dropped since they had a low reliability alpha in the present dataset. Among the remaining four styles (religion coping, active coping, emotional coping and instrumental coping), the first two showed significant negative correlation to anxiety and depression, indicating that these were potentially adaptive coping responses (Carver, 1997). All four styles of coping showed significant positive correlation to the character strengths (Table 5.19). The only exception was that religion coping was not significantly correlated to bravery. This shows that character strengths and coping styles are related constructs. However, what is interesting for this study is that emotional and instrumental coping were not significantly correlated to addiction measures. And while religious coping was negatively correlated to harmful use of alcohol, active coping was negatively correlated to both harmful use of alcohol and sexual addiction, and positively correlated to compulsive use of the internet. In the stepwise regression, only active coping emerged as a possible predictor for addictive behaviours, accounting for only 1% of the variance. However, when considered together with the salient character strengths (prudence, integrity, spirituality, and forgiveness), even active coping had no predictive value on harmful use of alcohol and sex addiction (Figure 5.5). These findings build up in favour of the hypothesis.

Depression and Anxiety were measured using the Hospital Anxiety and Depression Scale –HADS (Zigmond & Snaith, 1983). Depression showed consistent and significant negative correlations to character strengths, while anxiety was significantly correlated only to 10 of the character strengths (Table 5.19). Often this relationship was weak, but always negative. This indicates that an increase in character strengths is associated with a decrease in anxiety and depression and vice-versa. Nonetheless, depression was not significantly correlated to any of the addictive behaviours, whereas anxiety showed significant positive correlation to all addictive behaviours (Table 5.21). In the stepwise regression only anxiety emerged as a possible predictor (Table 5.23). In the path analysis, prudence and forgiveness showed an association to anxiety. Lack of prudence was a slightly stronger predictor for harmful use of alcohol than anxiety; though lack of forgiveness was a stronger predictor of anxiety than sex addiction (Figure 5.5). And anxiety emerged as a predictor for sex addiction. Taken together, the results are mixed.

The descriptive statistics and the plots (Table 5.26 and Figure 5.7) from the intervention phase suggest some interesting interaction between the mindfulness and life skills conditions in terms of their effect on anxiety and depression. However, the ANOVAs have not shown any significant difference between these interventions. On the other hand, the ANOVAs and descriptive statistics have shown that the mindfulness intervention had some impact on religious and emotional coping styles (Table 5.25; see also the plots in Figure 5.6). And this has been statistically significant. So, mindfulness here seems to emerge as an intervention that may have an effect on coping. Surprisingly only a few studies have previously examined the impact of mindfulness on coping styles. Sears and Kraus (2009) examined cognitive distortions and coping styles as potential mediators for the effects of mindfulness meditation on anxiety, negative affect, positive affect, and hope. While cognitive distortions emerged as clear mediators, the role of coping styles was not clearly established. Two other studies have shown that mindfulness-based stress reduction, increased positive strategies for coping (Walach et al., 2007), and decreased a reactive coping style (Tacón, McComb, Caldera, & Randolph, 2003). Though this was not the focus of the present study, it has added data to the enquiry examining the impact of mindfulness on coping styles.

6.5. Points for Discussion Emerging from the Case Studies

The data from the case studies help us understand the dynamics of the mindfulness intervention as experienced by the two sampled participants. As it has been reported in the results chapter, the case studies shed some light on the influence of mindfulness on character strengths and addictive behaviours. To begin with, I would like to summarise three points of significance that are worth noting in order to understand better what the intervention meant to these two participants.

Experience of contemplative practice as feeling uplifted

Both participants describe their experience of meditation in terms of “being lifted” or being “carried up”. When asked about what really happens to them when they are sitting in meditation, Martin said:

“Ok, when I begin meditating I find always myself, er I always get light, and carried up. I just feel like I am light. Then I feel humbled inside me, and I just see that I am a different, at least I am in a different place, I am not like a, I am in a different world, if I can put it that way, because, I er I just feel... Ok, I cannot have the best word to express, but I feel humbled and focussed.”

And elsewhere he added:

“but early in the morning as you breath in, you just feel ok you just feel like you are now as if you are going in heaven, ascending somewhere.”

Edel too attributed a similar experience, as she described what happened to her on a particular day:

“Yeah, I was at home alone. I felt like I was being lifted. And I was feeling like I was at the climax of meditation. I was feeling relaxed. And I was, I was not feeling like I was seated down, I was feeling like I was seated somewhere. ...”

The Narrative of God-talk

The second point to note is that their narrative is embedded with a ‘God-talk’. Edel associates her experience of “being lifted” with being “closer to God”:

“And I felt I was closer to God that day. I was not thinking of anything, and my mind did not get distracted that day. I was just there. I felt like I was hanging somewhere but relaxed.”

She added:

“Yeah, I learnt that through silence God can speak to you. ... Because if you concentrate and focus yourself in meditation you can feel God’s presence.”

Martin too, in the context of describing a particular experience of meditating and feeling “light and carried up”, spontaneously adds:

“When I start meditating, I, especially when we say, ‘let it be’ I find everything, (in louder voice) I feel like the presence of God, so that I can... I can... ok I am humbled, in a way that I er, all my feelings are concentrated on God alone.”

This ease of talking about God can be attributed to the fact that they are both believers, though belonging to different Christian traditions. Moreover, this could be attributed to their African cultural background, where talking about God does not require an extraordinary effort (Magesa, 1998; Mbiti, 1969). Also, this experience could have been induced by the method of Christian contemplative practice that they were practicing that had a direct reference to Jesus, as the Son of God.

Increase in religiosity

It is worth noting that both participants acknowledged an increase in religiosity, in terms of participation in common worship, and in the case of the Catholic participant, using the sacraments. It is also possible that both were already religious people, as shown by the score in general religiosity (Table 5.30). But what seems interesting here is the integration of the contemplative practice with regular religious practice.

In the interview, Martin talked about going to the church on weekdays as something new in his life: “...you know, now-a-day I’ve began going for this prayers in the church even during weekdays, ...” And Edel described her experience of going for the Catholic practice of private confession:

“Then there was a day also when I started meditating when I was in church, people were told to go for confession and I was reluctant. I didn’t want to go. Then immediately I started meditating, I just found myself, I just felt like going for confession immediately, I just stood and went without telling anyone that I was going for my confession.”

She also acknowledged her improved attention in church-service:

“Meditation has also helped me to concentrate especially in church during homily where my mind was always preoccupied.”

Within the discourse of the Values in Action, these three points of observation show direct relationship to spirituality. Besides this, what light is shed by case studies on the influence of mindfulness on character strengths and addictive behaviours? In the results section, as it has also been summarised in Table 6.1, the following character strengths were identified in the narrative of the two participants: perspective (self-awareness), kindness (social intelligence), responsibility (citizenship), humility, self-regulation, spirituality, and forgiveness.

As pointed out in Chapter 3, the appearance of self-awareness, self-control, humility, forgiveness, and even equanimity is not new to spirituality-addiction literature. In another reported case study of a recovering addict, Marcotte and colleagues (2003) point out the role of self-awareness in relation to abstinence from drug use: “By the end of treatment, [Pauline] had significantly increased her self-awareness, had begun the process of resolving past regrets, decided she would live her remaining days with greater honesty, had achieved four weeks of abstinence from cocaine, was more attentive to health-related issues, and was able to focus on the needs of others as well (p.173).” In the language of AA, humility seems to emerge in a person with an addictive behaviour as a result of an awareness of having hit the “rock bottom”. It involves the admission of their own short-comings (Keleman, Erdos, & Madacsy, 2007). Consequently, the person owns up to their sense of powerlessness over their life (Dyslin, 2005). This humility in turn invites the person to turn to a “Higher Power” (Morjaria & Orford, 2002). The role of forgiveness in addiction recovery has also emerged in the present set of case studies, and this has been discussed earlier in this chapter.

Another point of interest is that in the case of Martin, in spite of the talk about humility in the interview, in the post-test measure of VIA, humility emerged as the least ranked character strength! Could be this be a case of humility-paradox (Worthington, 2007): the moment you recognise that you are humble, you are no more humble? So, does his low score on humility in the VIA actually mask the presence of humility? Or, is the concept of “being humbled” different from humility or modesty itself? These questions once again call for a better clarification of the constructs of the VIA.

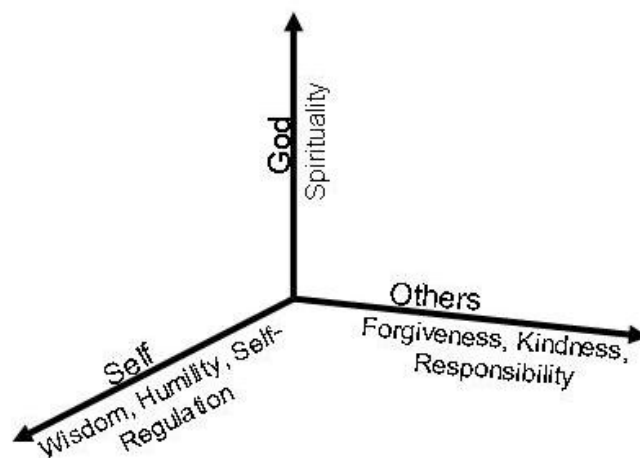


Figure 6.1. Three Dimensional Religious Spirituality

In summary, as it has been illustrated in Figures 5.11 and 5.12, the case studies express a three dimensional spirituality that is associated with the practice of Christian mindfulness that can be represented in three movements: a movement towards the self, a movement towards the transcendent (God), and a movement towards others and the world (Figure 6.1). It is worth noting that these movements have been experienced by the participants in the context of religious spirituality. The participants practiced a method of contemplation that has been in vogue for centuries within a religious tradition, and express their experience of this practice in the context of recovery from addictive behaviour in terms of the three dimensional spirituality. Interestingly, the three dimensions of spirituality have been also suggested by Joanna McGrath in relation to posttraumatic growth after brain injury. She talks about “upwardly directed ‘vertical spirituality’”, “inwardly directed ‘interior spirituality’”, and “outwardly directed ‘horizontal spirituality’” (McGrath, 2011, p.84). The specificities of the three-dimensional spirituality are also very similar to Emmons’ (1999/2003) description of spiritual intelligence. What the present case studies suggest is that it seems possible to explore the constructs of the three dimensional religious spirituality within the framework of character strengths. Peterson and Park (2009) attempt to lay the character strengths in a matrix: with the dimensions of the self and others in one plane, and the heart and head in another plane. Similarly, the salient character strengths identified from the case studies, as being the possible outcome of Christian contemplative practice, could be laid out in a three dimensional perspective: self (personal intelligence, wisdom, humility, and self-regulation), others (forgiveness, kindness/social intelligence, and responsibility), and God (spirituality).

Chapter 7

Conclusions

7.1. Recapping the Process

In attempting to answer the two research questions, this research project undertook the following steps. Having established the theoretical framework for the study by bringing together the psychology of, what I called, 'religious spirituality,' and positive psychology, the project proposed mindfulness as a possible intervention to enhance character strengths. After having examined some of the theories and models of addiction, the present study explored the presence of character strengths in the spirituality-and-addiction literature through a qualitative systematic literature review. The identified character strengths were integrated within a holistic model of addiction, and this was further used to develop a conceptual framework that predicted that some character strengths would be salient in predicting addictive behaviour, and act as the mediators in a Christian mindfulness induced addiction recovery.

The empirical part of the project had two stages: the survey and the intervention. The objectives of the survey were to examine the correlation between character strengths and addictive behaviour, and to identify some character strengths that could be used for prediction. The data from the survey were also used to examine the reliability and validity of the measures of character strengths within the African population. Furthermore, the participants (N = 504) in the first phase served as the pool from which to draw the participants for the intervention phase (N = 71) of the project. The objective of the intervention phase was to test the hypothesis that a Christian mindfulness intervention would enhance the character strengths and thus facilitate recovery from addictive behaviour. The effect of mindfulness was predicted to be greater than that of life skills training. The outcome of this phase was mixed. I have discussed the implications of this in the last chapter. In this concluding chapter, I would like to list some of the specific contributions of the study and point out a few orientations for future research.

Let me begin with a likely question: was it justifiable to study a psychologically negative phenomenon, such as addictive behaviour, within the framework of positive psychology? It is true that positive psychology is focussed on wellbeing and happiness,

but it does not neglect the study of psychological constructs that are negative. For instance, Tweed and colleagues (2011) have proposed that youth violence can be studied meaningfully within the framework of character strengths and positive psychology. They draw their support from other authors who have called for a balance in the subject matter of positive psychology (Linley, Joseph, & Wood, 2006). Therefore, the present research project also needs to be seen as an attempt to contribute to that balance.

In Chapter 3, a conceptual framework was presented within the holistic understanding of addiction (Figure 3.6). Figure 7.1 presents a simplified but enhanced model. In the present version, for the sake of simplicity, the relapse loop, physiological-psychological predispositions and triggers, and pharmacological intervention have been deleted, since they were not examined in the present project. Again, the generic term ‘addiction’ is maintained in this model, though addictive behaviours have been more complex as it will be elaborated in the next section of this chapter. The boxes that refer to character strengths have been better clarified by including the salient character strengths based on the insights from the survey-data and the case studies (Table 6.1).

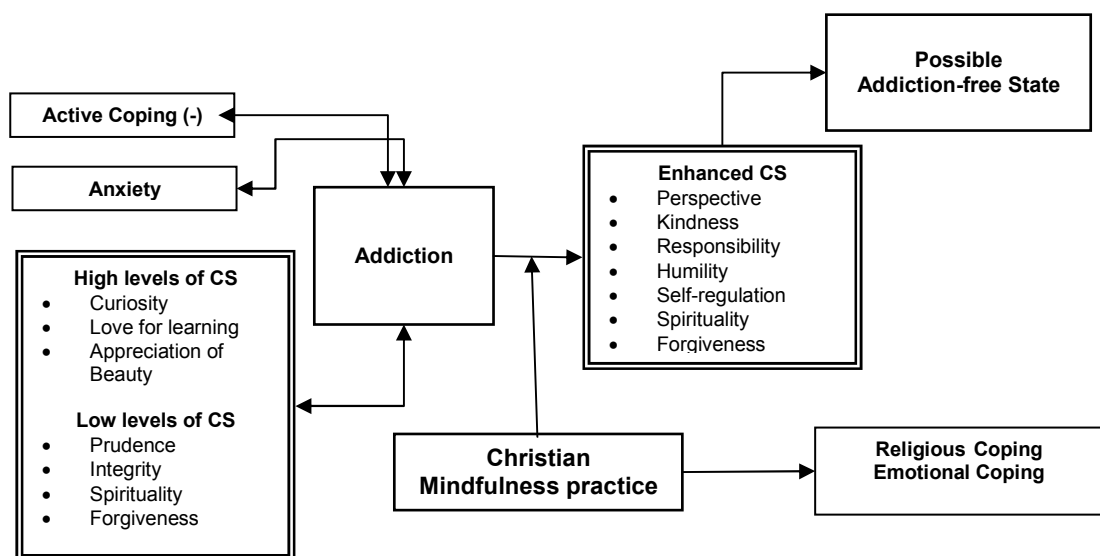


Figure 7.1. Character strengths within the holistic framework of addiction

From the survey, it has emerged that high levels of curiosity, love for learning, and appreciation of beauty, and low levels of prudence, integrity, spirituality and forgiveness are associated with addictive behaviour. Also, active coping could be a negative predictor, and anxiety a positive predictor for addiction. From the case studies, it has emerged that the Christian mindfulness could enhance perspective, kindness,

responsibility, humility, self-regulation, spirituality and forgiveness, and this in turn could be associated with recovery. The statistical data analysis suggests that Christian mindfulness intervention has an effect on religious and emotional coping. What follows is an enumeration of other possible conclusions.

7.2. Insights on Addictive Behaviours Emerging from the Study

In the section on addiction theories in Chapter 3, I had suggested that addictive behaviours could be located in a spectrum based on the substance or behaviour that acts as the gateway to addiction, and their potential to ingrain addiction. According to Robert West (2006) ‘addictive potential’ is based on the “proportion of ever users who become addicted” (p.27). For example, the use of heroin has a high addictive potential, whereas, shopping would have a very low potential. This can be supported by the evidence that some addictive materials “lead to physiological adaptation so that the body does not function properly when they are removed. ... Addictive activities that do not involve drug-taking are also rewarding in the broad-sense, at least to some people, but not every rewarding activity is addictive” (West, 2006, p.23).

The present study examined the variations across three addictive behaviours in their correlation to character strengths, and the possible impact of Christian mindfulness on these addictive behaviours. In the findings, there has been some support for the notion of a spectrum of addictive behaviour, even if this is only based on correlation and regression tests. To begin with, in its association with character strengths, the compulsive use of the internet has behaved differently from the other two addictive behaviours studied in this project – harmful use of alcohol and sex addiction. Even between harmful use of alcohol and sex addiction there have been some significant variations. In the path analysis, anxiety had stronger impact on sex addiction than on harmful use of alcohol (Figure 5.5). As regards coping styles, active coping emerged as a positive predictor for compulsive use of the internet, and as a negative predictor for the other two types of addictive behaviour (Table 5.22). Religious coping was correlated only to harmful use of alcohol (Table 5.20). In their correlation to character strengths, sexual addiction has shown more significant relationship than harmful use of alcohol (Table 5.9). This suggests that these two addictions may have different trajectories in their association with character strengths, and in their relation to anxiety, depression and coping styles.

Compulsive internet use (CIU) seems to exhibit yet another type of trajectory. In its correlation to character strengths only love for learning correlated positively to CIU, while other addictions had many more significant correlations, and generally negative in direction. While this raises some implications for the VIA, that there may be some negative impact of character strengths, which has been already discussed in the last chapter, it also alludes to the peculiarity of CIU. It makes sense that those who are eager to acquire new knowledge should be hooked to the World Wide Web which is the largest library of information offering easy access. In any case, the strength of relationship between craving for knowledge and CIU needs independent verification. Having said that, what is also interesting is that in the correlation between CIU and the six dimensions of the MI-RSWB, forgiveness, and sense and meaning emerged as possible predictors of CIU (see Table 5.15). This is yet another variation that needs to be examined in future studies of compulsive internet use. With regard to inter-correlation between CIU and other addictive behaviours, the study by Greenfield (1999) suggests that there is a strong correlation between compulsive internet use and sex addiction, however a strong correlation was not observed in the present data-set (Table 5.7). On the other hand, sex addiction has a stronger correlation to harmful use of alcohol than compulsive use of internet.

The peculiarity of CIU that has been pointed out above adds support to the debate on whether CIU can be classified as an addiction at all. Meerkerk and colleagues (2009) in evolving the Compulsive Internet Use Scale, which was used for this study, have been careful to base their questionnaire on the criteria for addiction set out in DSM-IV. The 14 items in the measure include five major dimensions of addiction: loss of control (items 1, 2, 5, and 9); preoccupation (items 4, 6, and 7); withdrawal symptoms (item 14); coping or mood modification (items 12 and 13); and intrapersonal and interpersonal conflict (items 3, 8, 10, and 11). Yet, the data emerging from the present sample show that CIU behaves differently when compared to sex addiction, the measurement of which was also evolved using the same criteria. In spite of this anomaly, scholars who would like to see CIU as an addiction (Meerkerk et al., 2009) cite the problem of ‘conceptual chaos’ that surrounds the whole field of addictions (Shaffer, 1997; see also Donovan & Marlatt, 2005). In any case, as Stern (1999) suggests, the so called ‘internet addiction’ needs to be seen in the light of the initial habitual use of other new technologies developed during the twentieth century, such as television and video games. ‘Addiction’ may not be the most appropriate explanatory framework for the overuse of the internet. That is why it is better to refer to it as a

compulsive behaviour. In due course, while the general population may get to a balanced use of new technologies, for some individuals these technologies may just aggravate their propensity for maladaptive behaviour.

7.3. Limitations of the Study and Orientations for the Future

From the discussions in the last chapter, several limitations of the present doctoral study have emerged. Firstly, the weaknesses of the VIA-IS has been noted. One way of circumventing this problem is to pick and choose more robust measures already available for some of the character strengths like hope (Snyder et al., 1991), forgiveness (Enright & Fitzgibbons 2000), compassion that is related to kindness (Gilbert, McEwan, Matos, & Ravis, 2011), gratitude (McCullough, Emmons, & Tsang, 2002), and curiosity and exploration (Kashdan, Rose, & Fincham, 2004), to cite just a few. However, it may not be possible to find suitable instruments to measure all the 24 character strengths together. This would also make the process of questionnaire administration impractically long. Another way of dealing with it is to opt for only a qualitative study, which, of course, raises other epistemological questions. In any case, there is the lack of an alternative comprehensive instrument to the VIA-IS.

Still another issue that needs to be acknowledged is that the combined questionnaires used for the present study were too long, with 380 items in all. This total included: the questions about demographic details, 240 items of the VIA-IS, and 125 items measuring other variables. Given the theoretical framework and the research design, it became impossible to reduce the number of items. In future research, if there is a better measure for the VIA with perhaps better refined list of character strengths, and fewer items for each entry in the list of the VIA, then this will make it easier to include it together with measures of other variables.

In the present study all the measures used were self-reported. This raises questions not only about the robustness of validity, but also about a possible reactivity effect. For a self-funded doctoral work the chances of using other empirical means was limited. On the other hand, it needs to be remembered that the intervention phase was a double blind condition: the trainers and the participants were blind to the hypotheses. Right from the survey stage, the same cover story was maintained: “The study is attempting to examine the effect of meditation on individual’s health and behaviour”. In the intervention stage, the participants were not aware that the groups were being compared to one another, and the control group had no idea of why they were asked to

report on a given day. As a result, there was no possibility of producing better results based on individual motivation – as it might happen in some clinical studies where the participants are aware that they are being treated and might know the expected outcome. This is a strong point of the present study. In addition, in the present study, the groups were initially randomised by assigning them in order of appearance on the list of eligible candidates. Later a few adjustments were made to balance groups for age and gender. This left the groups having varying mean scores in almost all variables. This could have contributed to the difficulty in obtaining significant results in the ANOVAs. Modest sample size also has contributed to the lack of significant results in the ANOVAs, as it has been pointed out in the chapter on discussion. Related to the sample size, the age of the participants could have had some influence. As it has been reported, the mean age of the sample was 22.6 (SD = 2.9). The majority of the participants came from the age group of between 21 and 23 years, accounting for 46.2% of the total sample (Table 4.3, page 143). On the other hand, as observed in Figures 5.3 and 5.4 (on page 175), the age group of 26 to 28, exhibits high prevalence of sexual addiction and harmful use of alcohol. Therefore, if the experiment could be repeated with participants aged 25 and above, it might provide different results.

This study has been very transparent about the intervention protocols (see Appendices C & D), and its rationale has been sufficiently explained. The possible overlap between the mindfulness condition and the life skills condition has been already pointed out. In a future replication of this study, if a comparative condition is to be included then it has to be better thought-out in such a way that there is no overlap. Nonetheless, from the experience of this research, this ideal is difficult. It might be possible to specifically compare the intervention group against a control group. In which case, again practice effect needs to be controlled for. It was possible to check for practice effect in this study at least because of the controlled randomised condition. In the future, the practice effect and reactivity effect could be controlled by what is called the ‘Solomon design’ (French & Sutton, 2010). The Solomon design is a method of randomising the groups in such a way that in addition to the pre-test/treatment/post-test group (G1), there are three other groups: one group with only the pre-test (G2), another with only post test (G3), and still another group with treatment and post-test (G4). The results of G4 should be comparable to that of G1, and significantly different from that of G2 and G3. Such a design is important given the nature of the assessment of character strengths, since making participants examine themselves on the character strengths itself seems to have been an intervention.

The overlap between mindfulness and life skills interventions itself offers a new insight, as suggested above, to combine the two and form a package of strengths-based intervention that could be compared against the waiting group - that could act as the control group. Moreover, in the present project the intervention was conducted on a sample of young adults from a general population. It would be interesting to try the intervention on a clinical population with more experienced trainers, and with the help of a team of researchers with better instruments for monitoring recovery.

A follow up study on the participants of the Christian mindfulness and life skills intervention groups of the present study could shed more light on the longitudinal effect of the interventions. It might turn out that none of the interventions had any lasting effect at all, or that one of the interventions had better effect. Since drop outs could be expected in longitudinal studies and hence could contribute to limited sample size, at least a qualitative exploratory study will bring to fore the dynamics of the interventions.

In a limited sense, the indications in the present study are akin to the findings of the Project MATCH (Babor, Miller, DiClemente, & Longabaugh, 1999; Group, 1998). Despite the controversy behind this project (see Cutler & Fishbain, 2005; Miller, 2005), particularly that it did not have a control group, Project MATCH was an eight-year, multi-site, \$27-million investigation sponsored by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) of U.S., and it studied which types of alcoholics respond best to which forms of treatment. The project used three types of intervention: (1) Cognitive Behavioural Therapy (CBT) which focused on handling thoughts about alcohol, dealing with urges, refusing drinks, and avoiding situations that might lead to relapse, etc. (2) Motivational Enhancement Therapy (MET) which provided structured feedback about alcohol-related problems, and attempted to motivate commitment to change, to increase individual responsibility, and to enlist personal resources. And, (3) Twelve Step Facilitation (TSF) which was based on principles of the Alcoholics Anonymous and it introduced the first three steps of AA and promoted active participation in AA. The study concluded that patient-treatment matching is not necessary in alcoholism treatment because the three techniques are equal in effectiveness. The underpinning points of discussion for and against the effectiveness of Project MATCH simply asserted that addiction is a complex reality. In a similar vein, the present study adds support to the emerging understanding that addiction is a multidimensional phenomenon, such that one set of variables may not be sufficient for prediction, and one method of intervention may not independently facilitate recovery, and different methods of intervention could actually produce similar results. This

further supports the relevance of the holistic model of addiction that was summarised in Chapter 3 of this dissertation project.

Collecting data from an African sample was a boon and bane. The limitations arising from this have been already discussed in the last chapter. Given that not many psychology studies are carried out among the people of Africa, and given the interests of the researcher, the empirical part of the study was carried out among the young-adult population in Nairobi, Kenya. This has added a wealth of data in testing measures that were previously used mostly in the Western population. This has helped raise a lot of questions about instruments that are taken for granted just because they have been tried among a Caucasian population. I reflect on this in more detail here below.

7.4. Contributions to Psychology Research in Africa

There is a dearth of publications of psychology research in Africa. According to available data (Gupta, 1995), as in 1987, only 0.4% percent of the 36,323 entries in the Psychological Abstracts offered by the American Psychological Association were either from or about Africa. Between 1927 and 1987, over 36% of the research reports from Africa came from just two countries, Nigeria and South Africa. Kenya featured third in this list. Most of these were published in the *Journal of Social Psychology*. Since 1987, given the trends, we can assume that this equation would have improved a little, particularly with South Africa taking the lead in publications since the collapse of apartheid. However, the overall research scene for psychology in the sub-Saharan Africa, and in Kenya in particular, leaves much to be desired (APA, 2006). With a lack of sufficient cross-cultural research how could theories and models of psychology be validly generalised? As a very modest attempt to fill this gap the empirical part of the present doctoral project was carried out in Kenya.

In the context of positive psychology, Park and Peterson (2007) have recommended that “Samples of research participants from different cultures should be studied, the equivalence of measures should be demonstrated, and constructs of concern should not just be exported (from Western cultures to elsewhere) but also imported (from elsewhere to Western scholarship)” (p.294). Judging from the available published research, the present study was the first of its kind to use a pencil-and-paper version of the Values in Action-Inventory of Strength (VIA-IS) among the African population. However, as it has been pointed out, there are at least two published works

on character strengths that involved the African population. One was an ethnographic work by Biswas-Diener (2006) that evaluated the existence, importance, and desirability of character strengths across cultures. This study included a sample (n=123) of the Kenyan Maasai. The other study was web-based (Park et al., 2006). This latter study drew data from 54 nations that included four African countries – Central Republic of Congo, Nigeria, South Africa and Zimbabwe. Being an online sampling it was basically a self-selected sample; and besides, the size of sample from the African nations was very small – compare for instance, the sample size from the United States (n= 83,576) as opposed to that from the Central Africa Republic (n= 32). The present study, therefore, tested the reliability and validity of the VIA-IS among the Nairobi young adults for the first time, and this could be a valuable contribution.

In the present sample population (Table 5.1, on page 166), the most endorsed character strengths were hope, gratitude, fairness, leadership and spirituality. The least endorsed character strengths were love for learning, appreciation of beauty, humility, self-regulation and prudence. From among the African nations studied by Park and colleagues (2006), the nation that is culturally comparable to Kenya is Zimbabwe, both being Eastern African nations. However, the results do not really match. In the Zimbabwean online sample (n = 21) the most endorsed character strengths were judgement (perspective), curiosity, learning, fairness, and honesty (integrity). And the least endorsed character strengths were religiousness (spirituality), self-regulation, zest (vitality), forgiveness, and industry (persistence). It should be remembered that the sample from Zimbabwe in the Park and colleagues study was small, and they were self-selected online. Generally online participants are not representative of the general population (Gosling, Vozire, Srivastava & John, 2004), and particularly in the African context they could be better educated. Nevertheless, the present project shows some interesting parallels to the mixed method study of Biswas-Diener (2006). In the list of character strengths that lacked cultural institutions – rituals and other procedures that promote character strengths - appreciation of beauty, humour, love of learning, and modesty/humility were the highest ranked among the Kenyan Maasai. This shows some resemblance to the present study. Of course, these are not comparable to the rankings that emerged from the U.S. and Japan (Satoshi et al., 2006). In that study, the higher strengths identified by samples from these two countries included love, humour and kindness, and lesser strengths included prudence, self-regulation, and modesty. If this method of national ranking can be taken seriously at all – since their stability over time has not been verified – while Japanese ranking resembles that of U.S, both are different from the Kenyan ranking.

As regards addiction scores alcohol misuse among the Kenyan population bears some similarity to that of the global population (Figure 5.1). This may be because the AUDIT measure developed by World Health Organisation is standardised and some of the items are adapted for every nation, and a Kenyan sample was used in the development of AUDIT (Saunders, & Aasland, 1987). In the sexual addiction score in the present study, the mean (5.20; SD = 4.69) and prevalence level (9.14%) fall between the U.S. levels and Botswana levels that were reported by a previous study, which also used the SAST (Mmidi & Delmonico, 2001). In that study among the American sample, 2% scored more than 13 points, while in the Botswana sample it was 21%. The mean SAST score for the Botswana males was 9.08 (SD = 5.75), and 3.93 (SD = 4.16) for American males. Again this raises questions about the Botswana data, since the numbers are really inflated. The present study, therefore, adds data to previously published research reports from Africa, and thus evaluates their validity.

7.5. Summary of the Contributions of the Present Study

As it has been repeated so often, the present study brought together three areas of enquiry: psychology of religion, positive psychology and psychology of addictive behaviours. Despite its limitations, the project has contributed to the three areas. And in the process, it has also made a unique input to psychological enquiry in Sub-Saharan Africa as pointed out above. Besides this, the following points are noteworthy.

Contributions to psychology of addictive behaviour

- The holistic model of addiction: In its study of addictive behaviour, the dissertation has presented a summary of relevant theories and models, and this was done within the framework of the criteria set out by DSM-IV and ICD-10. Also, the possible relevance of these theories to positive psychology has been considered. The holistic model of addiction proposed in Chapter 3 of the present dissertation is indeed first of its kind, and could act as a framework for future studies. The holistic model presents a comprehensive layout of the four phases of addiction and recovery: predispositions, addiction itself, recovery and maintenance. The role of religion and spirituality is thought-out within this framework. While the present work focused on the relationship between spirituality and addiction recovery, the holistic model has acknowledged the role of biological factors, socio-ecological conditions, and

individual psychological differences as predispositions of addiction. It has also pointed out the necessity of a variety of interventions in dealing with the multidimensionality of addictive behaviour.

- Varieties of addictive behaviours: Most reported studies in addiction research focus on one type of addictive behaviour, and rarely do they compare how addictive behaviours interact. The exploration of the three types of addictive behaviours in the present study, viz., misuse of alcohol, sex addiction, and compulsive use of the internet addiction, has shown to some extent that there are indeed varieties of addictive behaviours, and these follow different patterns in their correlation to character strengths. In particular, the findings add data to the argument that compulsive use of the internet might not be an addiction at all.

Contributions to positive psychology

- The Values in Action itself is a work in progress (Peterson & Seligman, 2004). The present study has made some contributions also to the VIA. Firstly, it has added data in testing VIA-IS among the African population as a pencil-and-paper test. It has raised the need for a robust comprehensive measure for the character strengths. Secondly, as one of the rare occasions whereby the VIA-IS has been used as a pencil-and-paper test, this study has raised some questions regarding its factorial structure and validity. Thirdly, if they are said to contribute to human wellbeing and happiness, how could character strengths be positively correlated to negative human behaviours such as addiction? The positive correlations between some character strengths and addictive behaviours that have featured in the present data call for a better clarification of the constructs of character strengths.
- In bringing together positive psychology and addictive behaviour, this study has contributed to the growing body of research that uses positive psychology as a framework to study even negative behaviour (Linley, Joseph, & Wood, 2006; Tweed, et. al., 2011). These efforts also contribute to balance the view that positive psychology is not just a ‘happiology.’
- This study has also initiated a dialogue between psychology of religion and positive psychology in looking at the constructs of spirituality in terms of character strengths and examining their interaction in a mindfulness-based intervention. From the lessons learnt it is possible to take this research area forward by focusing on one particular type of addictive behaviour, say, misuse of alcohol, and exploring its

association with character strengths through qualitative study and/or improved measurement of character strengths.

Contribution to psychology of religion and spirituality

- Multidimensional matrix of religious spirituality: Beginning with the conceptualization of religion and spirituality, the study has considered the possibility of a construct called ‘religious spirituality’. In attempting to chart the relationship between religion and spirituality, the project has proposed a multidimensional matrix that lends itself for the inclusion of religious spirituality. Attempt has been made to operationalize religious spirituality in terms of character strengths. This needs further development, given also the need for an improved clarity of character strengths.
- Hermeneutical realism and a mixed method approach: The present study has shown a sufficient level of reflexivity. The epistemological paradigm has been acknowledged and the use of mixed method has been justified. The contemporary psychological approaches to the study of religion must face the dilemma in methodology between positivist and social constructivist approaches, and in theoretical framework between grand-theories and piecemeal approaches (Hill & Gibson, 2008). Working within an epistemology of hermeneutical realism, this research project in psychology of religion proposed positive psychology as a multidimensional theory, and opted for a mixed method approach integrating quantitative and qualitative data.
- It has also been creative in its literature review. Rather than just presenting a featureless narration, attempt was made to identify a pattern in the available spirituality-recovery literature. Given the purpose of the review for this study, viz., to identify a list of character strengths, a qualitative systematic literature review was creatively used with a necessary accountability.
- Christian Mindfulness intervention: Despite its limitations, the project has attempted to develop a package and a manual of intervention. Much work still needs to be done in fine-tuning its details. It is hoped that the intervention protocol would contribute to the development of an intervention manual. The empirical data has shown some statistically significant impact of this intervention on coping. Possibly integrating it with life skills training, it could emerge as a comprehensive package not only for enhancing character strengths, but also to facilitate recovery from

addictive behaviour. The present study has acted as a well-documented trial of this intervention.

- From the case studies the concept of a ‘three dimensional religious spirituality’ has been identified. This offers a possibility to develop the construct of ‘religious spirituality’ even further. It integrates one’s attitude to, and relationship with, the self, the others, and the Ultimate Other (and since it is within the construct of religious spirituality, ‘God’ also could be comfortably used). The 3D-Religious Spirituality lends itself to be explored within the theoretical framework of positive psychology, and in terms of character strengths.

7.6. The Researcher’s Voice: Reflexivity

In the context of an empirical study in social sciences, reflexivity is the ability to account for the filters and lenses through which the researcher might ‘prejudice’ the study, and to be aware of how some aspects of the study might influence the researcher as a person. It is an exercise in ‘mindfulness’! Reflexivity is an important aspect especially of qualitative research. Nonetheless, whatever method or perspective they may use, researchers actively influence, and are influenced by, the various choices that direct the research process. Therefore, a report of reflexivity could help the reader to understand the dynamics of the research process. For the researcher, it could facilitate further learning. Glesne and Peshkin pointed out, “Learning to reflect on your behaviour and thoughts, as well as on the phenomenon under study, creates a means for continuously becoming a better researcher. *Becoming* a better researcher captures the dynamic nature of the process” (Glesne & Peshkin, 1992, p. xiii).

In this epilogue, therefore, I would like to answer these questions: what did I bring to this study, and what do I take from it? In the acknowledgements, I narrated the experience that acted as the ‘Newtonian apple’ that set me off on this search, which in due course has become a research. The specific choices that I have made on this intellectual journey have been tinted by several existential features, which include my cross-cultural lived-experiences, my previous academic background, my religious commitment, and my passion for Africa and its young people. An earlier version of these features, I had brought to this study. An improved version of these, I take forward.

I am an Indian citizen. Though born and brought up as a Christian in the Catholic tradition, my childhood friends were Hindus and Muslims. I played with them, studied with

them in school, and even prayed with them. As a young man, I joined a Catholic seminary and became a priest. While still in seminary, I studied Indian philosophy, practiced yoga, and underwent a rigorous training in Buddhist Vipassana meditation. At the invitation of my religious order that ministers to young people, I went out to serve in East Africa. There, I got interested in indigenous religions and spent quality time with traditional medicine men. Now for four years, I have lived in the UK, and participated actively in the debate, or shall we say, dialogue, between religion and society in this country. This is my cultural heritage, and this is my religious heritage. To me, culture and religion are not separate entities.

My previous graduate qualification was in philosophy, specialising in the philosophy of religion. For several years, I taught, among other courses, philosophy of religion, 'religion and religions', and philosophy of science. Chapter 2 of this dissertation has been coloured by this background. The concrete situations of young people in Africa have constantly invited me to come down from the ivory tower of philosophy. But at the same time, to make sense in the world of knowledge, a scholar has to be systematic, rational, and make a case on the basis of evidence. On a personal level for me, there is also a need to integrate my interest in academics, my religious commitments, and my educative-pastoral ministry with young people. And psychology of religion offers the scope for this integration. This has inspired the marriage between psychology of religion and positive psychology with special emphasis on character strengths and addictive behaviour. In researching religion, the choices have been particularly influenced by my own religious commitments and the background of the young people I minister to. 'Christian mindfulness' has been an outcome of my experience of being trained in the contemplative practices of different religions, and particularly in the Christian tradition. While the adjective 'Christian' indicates my own religious background and that of the target participants, the use of the term 'mindfulness' was an attempt to take on a secular platform and rigorously study the effects of Christian contemplative practice from a psychological perspective. My commitment to Africa, and to young people in particular, has directed my focus on addictive behaviour and the sampling process.

What do I take forward? Mostly, an enhanced scientific rigour: to look for evidence in the right way, in terms of methods and methodologies. The courage to distance myself and look at the effects of Christian contemplative practice from a third person perspective has sharpened my research tools. The initial months of this PhD project were spent in getting myself trained in research methods of psychology and the scientific study of religion. The aim of the second phase was to develop a coherent conceptual framework and to systematise the method of the study. Spending nearly seven months in Nairobi collecting data, implementing the interventions, and finally being humbled by the data were the better

parts of the experience of this study. Underlying all these phases was the epistemological paradigm of hermeneutical realism situated within critical realism. The study has offered some concepts and methods for me to work with in the future: the concepts of religious spirituality, three-dimensional spirituality, Christian mindfulness, and the use of mixed-method approach. The empirical data has offered some clear directions towards fine-tuning the Christian mindfulness intervention for facilitating recovery from addictive behaviour in my pastoral ministry and possibly also in future research. Generally, I have come to realise that an exaggerated measurement-approach in certain strands of psychology, particularly in the study of religion, could create several challenges, such as, the gap between concepts and their operationalisation in terms of items that are statistically reducible to factors. To fill this gap, psychology needs to be more open to insights from different religious, cultural, and philosophical traditions. Gladly, positive psychology is already doing this, and hence my attraction towards it (Selvam & Collicutt, 2013).

There is still a lot of work that needs to be done in cross-cultural validation of the instruments of measure that are in use within psychological studies. If the findings of psychology are to be generalised then the empirical context cannot be just in a few locations, the participants cannot be merely drawn from one type of population, and the tools of measure cannot be monolithic. A greater variety is needed. This is particularly urgent in psychology of religion. In this context, recent discussions on cultural psychology of religion are a welcome development (Belzen, 2010; Belzen & Lewis, 2010). Finally, I must admit that whether this study has adequately succeeded in making sense of the underpinning processes in Christian contemplative practice, or not, the components of the contemplative practice will continue to remain spiritual practices in their own right.

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Appendix A

Sample Coding from the Qualitative Systematic Literature Review

Source:

Walker, C., Ainette, M., Wills, T., & Mendoza, D. (2007). Religiosity and substance use: Test of an indirect-effect model in early and middle adolescence. *Psychology of Addictive Behaviors, 21*(1), 84-96.

Nodes	Sub-Nodes	Sub-sub-nodes	Part of the Extract
<p>Self-control</p> <p>Integrity</p> <p>Love</p>	<p>Positive Family relationships</p>	<p>Parental support</p>	<p>The research design was based on a comprehensive model of substance use, and the present results were consistent with the tenets of the model and the findings of prior studies. <u>Self-control constructs had paths to proximal factors including academic competence and negative life events, and the results demonstrated multiple pathways for the protective effect of good self-control and the risk-promoting effect of poor self-control. Deviance-prone attitudes constituted another domain of predictive effects, and the data indicated that these operated through similar pathways.</u> Thus, prediction of adolescent problem behavior depends on consideration of both self-regulation and attitudinal factors (Wills et al., 2001; Wills & Dishion, 2004). <u>It should be noted that parental support was prominent as a protective factor for both younger and older adolescents, with indirect effects through both attitudinal and self-control constructs, and the risk-promoting effect of parent– child conflict was mediated through similar paths (with opposite sign) to self-control and deviance-prone attitudes. Together, the results indicate the basic model is useful for understanding both protective and vulnerability effects for adolescent problem behavior.</u></p>

Spirituality	Religiosity		<p>This study used multiple measures to index religiosity. <u>We found that the religiosity measures were significantly related to adolescent substance use and fit a measurement structure that was replicated across samples.</u> Measures that assessed the personal importance of religion in one’s life were intercorrelated and were supported by confirmatory analyses as indicators of one underlying construct. Although the behavioral aspect of religious affiliation was correlated with substance use, multivariate tests indicated that only the personal aspect of religiosity showed a significant unique contribution to substance use. This suggests that further research should obtain detailed assessments of personal as well as behavioral aspects of religiosity and determine how these are related to onset and escalation of tobacco and alcohol use.</p>
Forgiveness			<p><u>Included in the study were measures that indexed dimensions of forgiveness (Touissant et al., 2001) and nonreligious spirituality (Underwood & Teresi, 2002). These measures had reasonable means and variances in both samples, indicating that they are relevant to adolescents.</u></p>
Spirituality			<p><u>The confirmatory analyses showed these loaded with the other personal religiosity measures, possibly because many of the experiences and attitudes listed in these measures (e.g., “When someone has hurt me, I try to forgive them”) may also be encountered in formal religious settings, either in earlier years or in adolescence. The protective effect noted for these measures suggests attention be given to this aspect of religiosity in further research with adolescents (cf. Ritt-Olson et al., 2004).</u></p>

Appendix B

Christian Mindfulness Intervention Protocol

Component 1: Christian Contemplative Practice – 7 Steps

Script for Audio Recording

General Introduction (:3)

Music: Instrumental

Voice: Welcome to the audio guide that will teach you how to meditate in 7 steps. You can meditate anywhere. But if you are a beginner we suggest you find yourself a quiet place where you can remain undisturbed for the duration of the meditation. The accompanying leaflet gives you the content of every step and the duration it will take, therefore, feel free to select the track according to your convenience. These steps introduce you to a method of prayer and contemplation that has been used in the Christian tradition at least since the 4th century. It consists in reverently repeating the name of Jesus.

In some of the steps, we suggest you use a prayer bead. However, this is not very crucial to the technique. The prayer bead can act as an anchor.

Every session of meditation will begin and end with a clang of a bell. The sessions are timed, so you don't need to be anxious about it. Just relax. Enjoy your meditation.

Music: Instrumental

Step 1: Being Here and Now (17 minutes)

Music: Taize hymn instrumental – Bless the Lord, my soul! (:2) fade out.

Sound: Bell (From bell to bell :12)

Voice: Gently sit and calm yourself. Take a comfortable posture. If you are seated on a chair, you might want to keep both your feet flat on the floor, and keep your back straight. Close your eyes. (Pause). Become aware that you are breathing. You don't have to manipulate your breathing in anyway. Just be aware that you are breathing in and out. As you breathe out, relax the different parts of your body: Relax your facial muscles. Relax your eyes. You can actually let go of your lower jaw without opening your mouth. Enjoy the moment. (Pause). Relax your neck, your shoulders, and above all your stomach. Keep your back straight. (Pause). Effortlessly keep paying attention to your breathing. Each time you realise your mind has gone wandering, gently bring back your attention to your breathing. Be here and now! From time to time become aware of your feelings. How do you feel – now and here? (Pause). Quietly be alert, but relaxed. The bell will indicate the end the exercise. Be at peace! (Long Pause).

Sound: Bell

Music: Taize hymn instrumental (:3) fade out.

Step 2: Let it be! (17 minutes)

Music: Taize hymn instrumental – Oh Lord, hear my prayer (:2) fade out.

Sound: Bell (From bell to bell :12)

Voice: Gently sit and calm yourself. Take a comfortable posture. If you are seated on a chair, keep your feet flat on the floor. Sit quietly and effortlessly. Be relaxed but attentive. Keep your back straight. As you breathe in and out, relax the different parts of your body. Close your eyes. (Pause). Relax your facial muscles, your jaw, your neck, shoulders, and your stomach.

Be aware that you are in the presence of God, the greater power, who is in control. (short pause). Be aware of the fact that you are breathing. (Pause).

For a few minutes become aware of the sound and noise around you. (Pause) Just say, “let it be.” These sounds were there before you began to listen to them, so let them continue to be. (Pause). Keep paying attention to your breathing. Feel the cold air that touches your nostril as it enters your body, and the warm air that leaves your nostril. Every time you become aware that your mind had wandered, just say, “let it be.” Whatever your mind is concerned with, let them be.

From time to time become aware of your feelings? How do you feel now? To your feelings say, “let them be.” Come back to your breathing. Be like a watchman at the tip of your nostrils. For every disturbing thought, just say, “let it be”; for every disturbing feeling, just say, “let it be.” Thank God for the serenity you enjoy in just saying, ‘let it be.’”

Sound: Bell

Music: Taize hymn instrumental (:3) fade out.

Step 3: Common Centring Prayer (17 minutes)

Music: Taize hymn instrumental – Laudate Dominum (:2) fade out.

Sound: Bell (From bell to bell :14)

Voice: Gently sit and calm yourself. Take a comfortable posture. Have your prayer bead ready in hand. If you are seated on a chair, you might want to keep both your feet flat on the floor, and keep your back straight. Close your eyes. (Pause). Become aware of your breathing. You don’t have to manipulate your breathing in anyway. Just be aware that you are breathing in and out. As you breathe out, relax the different parts of your body: Relax your facial muscles. Relax your eyes. You can actually let go of your lower jaw without opening your mouth. Enjoy the present moment. (Pause). Relax your neck, your shoulders, and above all your stomach. Keep your back straight. (Pause).

We are now going to begin a common practice of the Jesus Prayer. You will hear me say the prayer: “Jesus, son of the living God! Have mercy on me.” Then you will join the group in repeating the sentence 10 times. You could repeat it in an audible manner. We will pray slowly and rhythmically. After repeating it 10 times we will have a short pause before I begin again. Then you will repeat it again 10 times. We will continue this way as long as the time allows us (Pause). “Jesus, son of the living God! Have mercy on me.” (Group repeats for 10 times. Pause) “Jesus, son of the living God! Have mercy on me.” (Group repeats for 10 times. Pause; repeat this way 5 decades. Then longer pause).

Sound: Bell

Music: Taize hymn instrumental (:1) fade out.

Step 4: Personal Jesus Prayer (17 minutes)

Music: Taize hymn instrumental - Jesus remember me (:2) fade out.

Sound: Bell (From bell to bell :14)

Voice: Take a very comfortable posture. Sit straight but relaxed (Pause). Have your prayer bead in hand. And close your eyes (Pause). As you breathe in and out, relax the different parts of your body. Your facial muscles, your eyes, your jaw, your neck, your shoulders, and your stomach. Let go of your stomach. Sit straight but relaxed. Be here and now (Pause).

When you are ready begin to recite the Jesus Prayer quietly: as you breathe in, say, “Jesus, son of the living God.” as you breathe out, say, “Have mercy on me.” And you breath out, just relax. Every time you say, “Jesus, son of the living God; Have mercy on me move the prayer bead once. (Pause). Do this in a very relaxed manner. Be at peace. Jesus, son of the living God, Have mercy on

me. As you breathe in, say, “Jesus, son of the living God.” as you breathe out, say, “Have mercy on me.”

When you become aware that you are distracted just return your attention to your breathing, to the bead and to the powerful sentence. When you feel you don’t need the sentence anymore remain in the silence of your heart. Experience inner freedom, healing, union with Jesus and peace (Pause).

As you breathe in, say, “Jesus, son of the living God.” as you breathe out, say, “Have mercy on me.” As you do this move the prayer bead. This session will end with the clang of the bell (Long Pause).

As we are about to end this session: spend a few minutes in reviewing this moment of prayer and contemplation. What were your major distractions? What feelings have you gone through? What is the deepest awareness that you have experience at this moment? What is God trying to tell you at the depth of your heart?

Sound: Bell

Music: Taize hymn instrumental (:2) fade out.

Step 5: Personal Jesus Prayer (17 minutes)

Music: Taize hymn instrumental – Kyrie Eleison (:2) fade out.

Sound: Bell (From bell to bell :14)

Voice: Take a very comfortable posture. Sit straight but relaxed (Pause). Have your prayer bead in hand. Close your eyes (Pause).

Become aware of your breathing. As you breathe in and out, relax the different parts of your body. Just run a scan over your body, and let go of the tension that may be there. Sit straight but relaxed (Pause). Breathe in and out, gently and calmly.

When you are ready begin the Jesus Prayer: as you breathe in, say, “Jesus, son of the living God.” as you breathe out, say, “Have mercy on me.” As you do this, move the prayer bead. . Jesus, son of the living God, Have mercy on me. This session will end at the clang of the bell (Longer pause).

As we are about to end this session: spend a few minutes in reviewing this moment of prayer and contemplation. What were your major distractions? What feelings have you gone through? What is the deepest awareness that you have experience at this moment? What is God trying to tell you at the depth of your heart?

Sound: Bell

Music: Taize hymn instrumental (:2) fade out.

Step 6: Personal Jesus Prayer (24 minutes)

Music: Taize hymn instrumental – Laudate Omnes Gentes (:2) fade out.

Sound: Bell (From bell to bell :21)

Voice: Take a very comfortable posture. Sit straight but relaxed (Pause). Have your prayer bead in hand. And close your eyes (Pause). Become aware of your breathing. As you breathe in and out, relax the different parts of your body. Sit straight but relaxed (Pause). Relax your facial muscles, eyes, let go of your lower jaw, relax your neck, shoulders and your stomach. Become aware that you are breathing. Breath in gently and quietly.

When you are ready begin the Jesus Prayer: as you breathe in, say, “Jesus, son of the living God.” as you breathe out, say, “Have mercy on me.” When you

become aware that you are distracted just return your attention to your breathing, to the bead and to the powerful sentence. When you feel you don't need the sentence anymore just remain in the silence of your heart. Experience inner freedom, healing and union with Jesus (Pause). As you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." As you do this move the prayer bead. (Pause) If there is a disturbing thought at this moment, just say: "let it be". If there is a disturbing feeling, to that feeling just say, "let it be". When you are tired or you feel you don't need the sentence any more, just remain in silence. Become aware of your feelings: how do you feel here and now? Experience inner freedom, healing, union with Jesus and peace. As you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." (Longer Pause :7)

When you become aware that you are distracted just return your attention to your breathing, to the bead and to the powerful sentence. When you feel you don't need the sentence anymore remain in the silence of your heart. Experience inner freedom, healing and union with Jesus (Pause).

As you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." As you do this push the prayer bead. (Long Pause)

Sound: Bell

Music: Taize hymn instrumental (:2) fade out.

Step 7: Jesus Prayer (24 minutes)

Music: Taize hymn instrumental – Kyrie Eleison (:2) fade out.

Sound: Bell (From bell to bell :42)

Voice: Take a very comfortable posture. Sit straight but relaxed (Pause). Have your prayer bead in hand. Close your eyes (Pause). Become aware of your breathing. As you breathe in and out, relax the different parts of your body. Sit straight but relaxed (Pause). When you are ready begin the Jesus Prayer: as you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." As you do this push the prayer bead (Pause). When you become aware that you are distracted just return your attention to your breathing, to the bead and to the powerful sentence. When you feel you don't need the sentence anymore remain in the silence of your heart. Experience inner freedom, healing and union with Jesus (Pause). As you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." As you do this push the prayer bead. (Longer Pause :7)

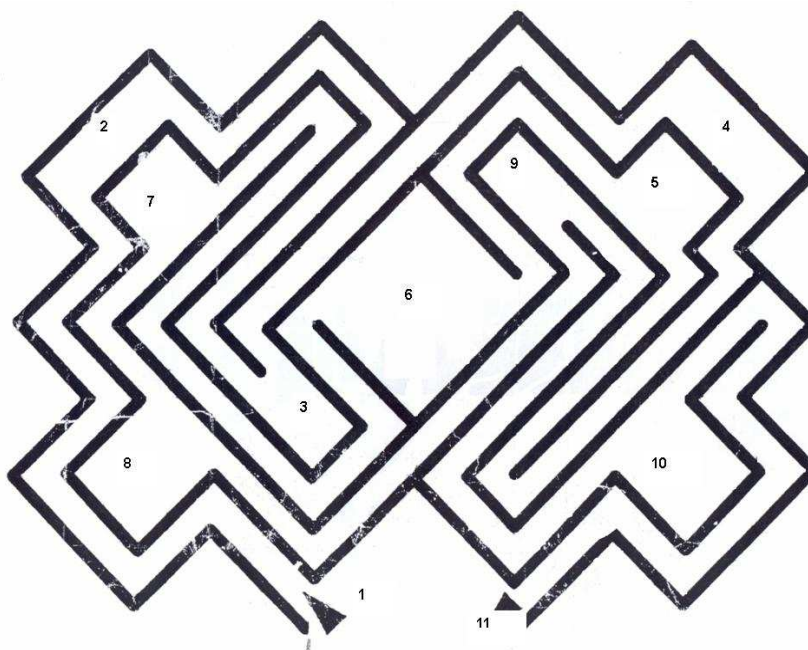
When you become aware that you are distracted just return your attention to your breathing, to the bead and to the powerful sentence. When you feel you don't need the sentence anymore remain in the silence of your heart. Experience inner freedom, healing and union with Jesus (Pause).

As you breathe in, say, "Jesus, son of the living God." as you breathe out, say, "Have mercy on me." As you do this push the prayer bead. (Long Pause)

Sound: Bell

Music: Taize hymn instrumental (:2) fade out.

Component 2: Labyrinth Walking - The Walker's Guide



Station 1. Introduction

You are about to begin a journey. A spiritual journey. A pilgrimage. It is a pilgrimage inward into your own deep self, and a pilgrimage outward to the world – of people. Inasmuch as you are getting in touch with your inner self, it is going to be a journey towards God, because you are in the image of God. This experience of God – in yourself will make also your life with people more meaningful.

You are about to enter a labyrinth. Labyrinth is a maze-like structure that facilitates the spiritual exercise of walking and reflecting about oneself, others and God. It does not involve mental gimmicks as in a maze. Do not worry, you are not going to get lost as there is only one way in and another out. This exercise is about your heart and soul. In fact, it involves your whole self. It is not a puzzle you are about to solve, though it might help you get in touch with the puzzle that you are.

Since this exercise may take at least 30 to 60 minutes we request you to be physically prepared to endure and enjoy this. If you are in a hurry, may be you should do this at another suitable time. For best results be ready to go through all the suggested exercises.

You are going to be alone during this journey. We request you to be silent throughout. But you are not alone. Remember, you are journeying together with millions of pilgrims who are seeking. You are seeking too.

You are seeking in the company of the thousands of labyrinth walkers in the medieval cathedrals, and the hundreds of those who walk the labyrinths in modern parks even today. You are in the company of millions of women in India who, for centuries, have used the “yantra” – a labyrinth like drawing by hand – to decorate the fronts of their homes as they meditate and get in touch with themselves. You are in the company of millions of pilgrims who have walked thousands of miles throughout centuries going to

the Holy Land, to Mecca, to Holy rivers and shrines. Be aware that you are part of this great spiritual movement.

This could be the moment of your dream come true. A dream to experience God. A dream to get deeper into your self. A dream of becoming authentic in your relationship with others. Are you ready to be transformed? Let's go...

As You Walk...

Walk in awareness. Become aware of the fact that you are walking. Become aware of your innermost feelings and thoughts. Become aware of the lights and sounds around you.

Look around and enjoy the world. Look at things as if you are looking at them for the first time. But be aware that you are looking. Don't name them. Just look. Don't name your feelings. Just look.

Move in slow pace. At your pace. You can't rush into yourself. Nor to God. Take time. Sit anywhere as much as you desire. Feel free to go beyond the directions that are offered here. Listen to your heart. The heart has its reasons... Listen to your inner spirit. Listen to the Spirit.

Walk with respect for the world around. Disturb no one. Hurt no life – Not even a plant life. Flowers are to be admired. Not to be plucked. Leave the labyrinth suitable for fellow travellers. Leave your good vibrations around here.

Station 2:

Let me pause for a while - Quietening Myself

Sit down. Enjoy this moment. The now.

We live in a world of hustle and bustle. We invent machines to save time. Yet we have no time! But you have this moment. The now. Just be.

Modern city is like a dictionary. As you drive into Nairobi you drive into words – billboards, neon lights, signs... They compete with each other to get your attention. You need to live above them if you want to be sane. So just be here. Just now.

Sit and become aware of the noise that's around you. Tell them: Let it be!

Become aware of the peace coming over you. You may close your eyes. Breathe consciously, in and out. Enjoy the moment. The Now.

Now, To all the discomfort of body that you may experience say, let it be. To all those thoughts arising in your mind. Say, let it be. To all those feelings arising in your heart. Say, let it be. To the world, say, let it be!

Be at peace. Just be! Be in the presence of God.

(When ready continue your journey... move on and stop at station 3.)

Station 3

At the Pond - Dealing with my worries

Just sit. Look at the water in front of you. Water bodies can bring inner healing.

Are you stressed? Is there anything that is disturbing you at this moment? What are you worried about?

From the pile of stones pick up one small stone. It seems light. It doesn't hurt.

Hold the stone with your fingers. Hold it. Hold it as long as you can.
Just keep looking at the stone. Can you see the stone gaining weight as it begins to hurt your hand? Hold it, don't drop it yet. It is the same with worry and anxiety.
In the beginning you don't even notice. When you decide to hold it for long it causes stress. You hurt yourself.

What is the worry that you have been carrying within yourself in the recent past?
Identify one worry. Now look at the stone. Think that the stone is that worry.
Concentrate on it. Feel the weight of the stone. Weight of the worry.

Hold the stone over the water. Now gently and effortlessly, let go of the stone. Feel your worry disappear into the water. Feel cleansed. Feel free. Enjoy the moment.

Jesus said, do not worry about tomorrow. God is there. Be at peace. Let nothing disturb you.

(On the way...)

Gratitude

Today upon the bus,
I saw a lovely maid with golden hair
I envied her.
She seemed so gay and wished I were as fair
When suddenly she rose to leave,
I saw her hobble down the aisle
She had one foot and wore a crutch but as she passed a smile
Oh God!. Forgive me when I whine
I have two feet - the world is mine.

And then I stopped to buy some sweets
The lad who sold there had such charm
I talked with him - he smiled to me: 'It's nice
To talk with folks like you see',
he said, 'I am blind'
Oh God!. Forgive me when I whine
I have two eyes - the world is mine.

And walking down the street
I saw a child with eyes of blue
He stood and watched the others play
It seemed he knew not what to do
I stopped for a moment then I said

Why don't you join the others dear?
He looked ahead without a word, and then
I knew he could not hear.

With feet to take me where I'd go
With eyes to see the sunset's glow
With ears to hear what I would know
Oh God! forgive me when I whine
I am blessed, indeed! The world is mine

Anon.

Station 4
Garden of Reconciliation
Dealing with my hurt...

You are in this special garden. The garden of reconciliation.
Notice the special plants in this garden? The Chagga people of Kilimanjaro call this plant Isale (plural, Masale) Isale is used as a plant of reconciliation. Among the Chagga, when someone seeks the forgiveness of another S/he carries this plant. So this is an African symbol of reconciliation. You are in the garden of reconciliation. Where there is reconciliation, there is God. God is here.

Is there someone you find difficult to forgive? Does your stomach roll when you think of that person? Would you like to deal with that hurt? Now?

Be seated. We pile up hurt feelings in our selves as if putting them into a pot. We keep boiling the pot every day and we keep hurting ourselves. Let us deal with at least one of your hurt feelings from the pot! Pick up a ball of putty from the pot.

Become aware of the presence of God. As you play with the putty remember that person who has hurt you. As you keep kneading the putty enumerate to yourself a litany of hurts caused by the person. After every "invocation" just say, "For this, I forgive you."

Keep doing this until you feel You are at peace. Finally as you throw the putty back into the pot Tell yourself, "I forgive myself for hurting myself." (For keeping the hurt within you and hurting yourself.)

Now the memory of the hurt may remain. You have forgiven.
You may not forget. But it may not hurt you anymore.

So let it be! Feel the freedom. Feel the peace.

Jesus said, if you forgive others, You are forgiven. Enjoy the forgiveness.

New Leaf

He came to my desk with quivering lip -
The lesson was done.
“Dear teacher, I want a new leaf,” he said,
“I have spoiled this one.”

I took the old leaf, stained and blotted,
And gave him a new one, all unspotted,
And into his sad eyes smiled:
“Do better now, my child.”

I went to the Throne with a quivering soul -
The old year was done.
“Dear Father, has thou a new lead for me?
I have spoiled this one.”

He took the old leaf, stained and blotted,
And gave me a new one, all unspotted,
And into my sad heart smiled:
“Do better now, my child.”

Station 5 Distractions

Close your eyes (after you read this paragraph). Turn around. Stop.
Stretch your hand and point to the north. Then open your eyes. If you have read this
now follow the instructions without calculating. Now close your eyes.

Did you get it right? Doesn't matter if you got it wrong.

Whether you got it right or not North pole remains where it is.

What is the north pole in your life? What is it that gives meaning to your life? Is it your
education, studies, degrees? Is it your wealth, things, possessions? Is it your family?
Is it your friends? But remember, The true north pole is God. He is unchangeable. Are
you focused? On Him?

Station 6 Sacred Space

Now you are at the centre of the labyrinth. You are at the centre of yourself. You are
with God. This is a sacred space. Enjoy the moment. Enjoy the presence of God.

Be available to Him. Let him touch you. Let him heal you. Let him love you. Let him be
with you.

Take a deep breath. Close your eyes. Enjoy the present. Enjoy your self. Enjoy God. He
loves you.

Outward Journey...

Now you are beginning your outward journey. Outward into the world – to others.

How do you feel right now?

When Peter saw Jesus transfigured on the mountain. He said, Lord it is good for us to be here. Jesus took them down the mountain. True spirituality is tested in the marketplace.

Are you ready to go back to the marketplace?

You are going back to the same world from where you came. Nothing has changed out there. But may be you are changed. And because of you the world is going to be a better a place.

So let's go....

Station 7

Myself

How do you appear to the world? Who are you? Look at yourself in the mirror. Would you like to say anything to that person in the mirror? Do you love that person?

Look at your eyes in the mirror. What would you like to say to those eyes? Are they hiding something? Look at them. Look at yourself.

Remember, You are loved. God loves you. There are some people out there who love you. You mean something to somebody. Look at you. The beautiful person. You are worth love.

You can love too. If you can love you believe you can be loved too. You are beautiful. As you are. Savour the moment.

Station 8

Seed bed - Enhancing Life

What is the purpose of life? What is the purpose of your life? The purpose of human life is to enhance life. This is at the heart of the African world-view. Are you ready to enhance life of people you live with? Are you ready to enhance your life?

“Glory of God is man fully alive.” Are you ready to be fully alive? Are you ready to be the glory of God?

Take a seed from the container. Hold it in your hand. Have a good look at it. The seed you hold is as old as the universe. The elements that make up the seed were there right from the beginning of the universe. You too are as old as the universe.

The seed is a microchip. It has sufficient information to reproduce itself given the right circumstances. You are much more than the seed. You carry within yourself untold information, potentialities, wealth.

The seed is alive. You are alive too. Are you ready to enhance life? Your own and that of others?

Now gently bury this seed in the bed. Carry some water and pour on it. The goal of human life is to enhance life.

Are you ready to enhance life? Thus are you ready to share in the life of God? For, God is LIFE.

Station 9
Tree of Rosaries
Others in my life

Rosary (or prayer bead) is a tool used in many religions for prayer. In Hinduism, Buddhism, Islam and Christianity.

Pick up one rosary from the tree. And as you roll the beads, for each bead remember one person who you like to pray for. Do this slowly and consciously. The feeling of bliss that you enjoy at this moment pray that even that person may enjoy. Or just say, "Bless him/her Lord."

When you think you have prayed enough return back the Rosary and proceed on.

Wait. Stop to pray for one person you find difficult to live with, to work with! "Bless him/her Lord."

Persons are gifts

Some are wrapped very beautifully
They are attractive when I first see them
Some come in very ordinary wrapping paper
Others have been mishandled in the mail
Once in a while there is special delivery
Some persons are gifts which come very loosely wrapped
Other very tightly
But the wrapping is not the gift
It is so easy to make the mistake
I am a person, therefore I am a gift too!
A gift of myself to me
The father gave myself to me
Have I ever looked inside the wrapping?
Or Am I afraid to?
Perhaps I have never accepted the gift that I am.
Could it be, there is something inside the wrapping than what I think there is?
May be I've never seen the wonderful gift that I am.
Could the father's gift be anything but beautiful?
I like the gifts which those who love me give me
Why not this gift from the father?
And I am a gift to other persons too
Am I willing to be given to others by the father?
A man for Others?

Station 10
Footprints
Leaving a legacy

One of the yearnings of the human heart is to leave a legacy behind. We want to immortalize ourselves in this world. What do you want to leave behind in this world?

Now remove your shoes. Gently and consciously walk around the tree on the sand.

Then stop and look back at your own footprints. As you look back, are you proud of your footprints? Are you proud of the footprints that you are actually leaving behind in this world, through your daily choices?

Footprints on the sands of time! What type of history are you writing with the diary of your life. What are your major contributions to the world so far? How can you enhance your contributions to the world? In what specific areas can you direct your energy towards?

Are your footprints the kind
“... , that perhaps another,
Sailing o’er life’s solemn main,
A forlorn and shipwrecked brother,
Seeing, shall take heart again” ?
(H.W. Longfellow)

Remember, you are not walking alone. Jesus walks with you too.

Footprints

One night I had a dream.
I dreamed I was walking along the beach with the Lord.
Across the sky flashed scenes from my life.
For each scene, I noticed two sets of footprints in the sand;
one belonging to me, and the other to the Lord.

When the last scene of my life flashed before me,
I looked back at the footprints in the sand.
I noticed that many times along the path of my life
there was only one set of footprints.
I also noticed that it happened
at the very lowest and saddest times in my life.

This really bothered me
and I questioned the Lord about it.
"Lord, you said that once I decided to follow you,
you'd walk with me all the way.
But I have noticed that during the most troublesome times in my life,
there is only one set of footprints.
I don't understand why when I needed you most
you would leave me."

The Lord replied,
"My beloved, my precious child,
I love you and would never leave you.
During your times of trial and suffering,
When you see only one set of footprints,
it was then that I carried you."

As you go back into the world....

Desiderata

Go placidly amid the noise and haste, and remember what peace there may be in silence. As far as possible without surrender be on good terms with all persons. Speak your truth quietly and clearly; and listen to others, even the dull and ignorant; they too have their story.

Avoid loud and aggressive persons, they are vexations to the spirit. If you compare yourself with others, you may become vain and bitter; for always there will be greater and lesser persons than yourself. Enjoy your achievements as well your plans.

Keep interested in your own career, however humble; it is a real possession in the changing fortunes of time. Exercise caution in your business affairs; for the world is full of trickery. But let this not blind you to what virtue there is; many persons strive for high ideals; and everywhere life is full of heroism.

Be yourself. Especially, do not feign affection. Neither be cynical about love; for in the face of all aridity and disenchantment it is perennial as the grass.

Take kindly the counsel of the years, gracefully surrendering the things of youth. Nurture strength of spirit to shield you in sudden misfortune. But do not distress yourself with imaginings. Many fears are born of fatigue and loneliness. Beyond a wholesome discipline, be gentle with yourself.

You are a child of the universe, no less than the trees and the stars; you have a right to be here. And whether or not it is clear to you, no doubt the universe is unfolding as it should.

Therefore be at peace with God, whatever you conceive Him to be, and whatever your labors and aspirations, in the noisy confusion of life keep peace with your soul.

With all its sham, drudgery and broken dreams, it is still a beautiful world. Be careful. Strive to be happy .

(Found in old saint Paul's church, Baltimore, dated 1692)

Journal Entry

Now make an entry in your journal: How do you feel now? Was there any special moment during the labyrinth walk? Is there anything that you would like to carry home?

Component 3: Mindfulness Journaling – Training Manual

Skills in Journaling – Session 1 Group Activity

1. Participants are divided into groups of five people each. Remind them of confidentiality – the stories are not to be *discussed* outside the session.
2. When settled in groups, each member of the group is requested to say a ‘story’ in turn. ‘Story’ here is understood as something that happened to them in the recent past. The story could be something very small – eg. I saw a street boy at Moi Avenue; Something that I saw in my college.
3. After listening to each other, the members of the group agree and choose one of the stories that was narrated in the group.
4. Then the group follows the three steps from the Worksheet 1. Give out the worksheet, with some papers. Basically, the group asks the individual the questions, and the individual is helped to develop the story. After the process (30 minutes), the individual briefly reports the three steps to the plenary. Remind the plenary of confidentiality. Invite them to listen to the story with empathy.
5. Invite individuals, as they listen to the story, to see how they could develop their own story in the three steps.
6. Conclude by debriefing: any general observation about the methodology (not content of individual story) after listening to the stories? Tell them: this exercise was only a preparation for individual journal writing.

Skills in Journaling – Session 2 Individual Exercise

1. Modelling: Participants are given Worksheet 1. Invite them to work individually. We are learning the skill in Journal writing. Explain briefly the three steps. Pay attention to the distinction, and the specific set of vocabulary.
2. Scaffolding: When settled give time for individuals to do the exercise silently (30 minutes). All seated in the hall, but may sit as they want. The facilitators could go around clearing individual questions – but not be intrusive! Remind them to go through the steps consciously one by one, and not mix up. Write in their journal.
3. Assessing the process: After 30 minutes, invite participants to gather together. Ask: Any general observation about the methodology (not content of individual story) after having done the exercise individually? Any surprises even at the outcome of the exercise? Tell them: this is one way of building a skill in journal writing. Because this was an exercise in skills-building we went through the steps consciously. Maybe you might not follow these steps consciously in the future, but it is important to include the three elements. Journal entry is not just be descriptions, but about insights and feelings. If one is a believer, then it is important to ask as we write the journal: what is God moving me to during the day?
4. Give out Worksheet 2 and Worksheet 3. And invite them to do their future entries following that general instruction.

Worksheet 1
Three Steps towards developing a skill in journaling

Step 1	Write the story (events of the past few hours) very briefly in a descriptive manner.	What happened? What did you sense: hear, see, smell, touch, taste? What were the stimuli like? Who were the people around? What scenes, colours...?
Step 2	Write some insights or thoughts that can be abstracted from that story.	Reread the description above and answer the following questions: What thoughts passed your mind during the experience? What stood out for you in that event? What decisions did you make? What judgements did you make about people, and the sights? What thoughts do you have now, as you think of that experience? What insights can you gain? What values are touched by that experience? Are these values important for you? (Useful vocabulary with variations: think, judge, learn...)
Step 3	What do you feel at the depth of your heart?	Reread the entries from the two steps above and name the feeling that you experience now. <ul style="list-style-type: none"> • How do you feel now? • What is the inner wisdom emerging from this? • What is God trying to tell you at this moment even through that event (story)? (Useful expressions: feel, moved, touched, awed, saddened, annoyed, elated, humbled, honoured, hurt, disappointed, grateful,...)

Worksheet by
 Sahaya G. Selvam, SDB
 Eddie Kabue

Worksheet 2

General Guidelines for Journaling

- Keep your diary in a secure place. If you have some apprehensions about protecting the privacy of your diary, consider taking steps that can ensure its privacy, including by writing on top of the book: “Confidential”. Once privacy is ensured, make the entries with absolute openness. If you are not sure of its privacy, you can take some precautions by using only their initials while referring to people, by using certain words and expressions to which you attach your own meaning.
- It is more helpful to make short entries more often than longer entries once in a while. Try to create a ritual around the moments you make entries in your journal. For instance, dimming the lights in your room, or going out into the garden, or taking a particularly posture in a specific corner in your room.
- In your writing, attempt to proceed from mere description of events to an awareness of the experience in terms of your thoughts and feelings about the events. Try to go beyond rational analysis of the event to enumerating the event at the emotional level. What convictions do they bring to you? What moves you?
- Try to strike a balance between being too sketchy in your writing that it does not serve to process the experience for you, and filling up with details of no significance.
- You might make an entry as if you are addressing your journal in the second person. You might want to write your entry in the form of a prayer, or a poem.
- Try to focus on the positive as you make an entry. This does not mean that you will run away from unpleasant experiences or even very powerful experiences of your daily life. Rather than just ruminating over negative experiences, try to contemplate on them. “Being in touch with negative feelings is only helpful if you can bring some peace and mindfulness to them” (Bien & Bien, 2002, p.72). Write down the sense of mystery that negative experiences evoke within you.
- If you are believer, bring in God. Some entries can take the form of prayer – narrating the story to God. Ask: What is God moving me towards?

Worksheet 3

Journaling as a psycho-spiritual exercise – Guidelines

Quieten yourself.

Spend a few moments breathing in and out.

As you breathe out, relax the different parts of your body.

Get in touch with your thoughts and feelings at this moment.

When you are ready, begin to write your thoughts and feelings down.

If you find it difficult to begin somewhere, just begin by describing the events of the day or the past few hours.

What people have you met?

What events have you witnessed?

What touched you most during the day?

Were there insights that cropped up in your mind during the day?

How were your quiet moments, including the contemplative practice?

Generally, were you serene and centred (focussed) during the day?

(You might want to follow a particular style of journaling from among the different approaches described in Appendix B).

Consider your diary as a faithful listener and companion.

Consider your diary as a safe space where you can be yourself.

Consider your diary as the sacred space

where you can get in touch with God,

by getting in touch with yourself.

As you write, from time to time get in touch with your self:

What thoughts come to your mind?

What inner wisdom is there in those thoughts?

How do you feel?

What message does your feeling bring to you?

Would you like to write even these insights?

Conclude by rereading what you have written,

and getting in touch with your thoughts and feelings.

If there is something more that you feel like writing, just go ahead to write.

If you feel your heart is heavy, try to practice Christian mindfulness.

Surrender that feeling to a Greater Power – God!

You might want to talk to someone about it later, and seek help.

But for now, just let go.

Appendix C

Life Skills Training: Contents

Life Skills and Living Values

Life skills are Psycho-social abilities that one acquires to help deal effectively with daily challenges. There are 3 categories of life skills.

- Life skills of knowing and dealing with oneself
 1. Self awareness
 2. Self esteem
 3. Coping with emotions
 4. Coping with stress
- Life skills of living and dealing with others
 5. Assertiveness
 6. Effective communication
 7. Peaceful conflict resolution
 8. Peer pressure resistance
 9. Empathy
 10. Interpersonal relationships & Friendship
 11. Negotiation skills
- Life skills of effective decision making.
 12. Decision making
 13. Creative thinking
 14. Critical thinking
 15. Problem solving

Living values: These values are considered to be universally acceptable and that they are to be promoted in individuals in order to make the world a better place.

- Humility
- Faith
- Tolerance
- Integrity
- Trust
- Cooperation
- Hope
- Sincerity
- Responsibility
- Freedom

1. Self awareness

Skill of knowing and understanding oneself in terms of one's potential, feelings, emotions, habits or tendencies. Position in life and society as well as strength and weaknesses.

Activity – Draw yourself placing the piece of paper or the writing pad on the top of your head.

The acronym SWEET

S – What are your strengths?

W – What are your weaknesses?

E – Which of your experiences have had a great impact on you and how?

E – What are your expectations in this life? Do you have time lines for them?

T – What has significantly influenced your thought system? What directs or influences your thought system today?

Shield of self awareness/love heart.

What you like about yourself	What you dislike most about yourself
Person most important to you	What you fear most
Your guiding motto	

2. Self esteem

It the appreciation of good in self. Also referred to how an individual feels about their personal attributes such as appearance, abilities and behavior.

Types of self esteem

- High self esteem
- Low self esteem

Causes of high and low self esteem

- A happy home
- A hard life e.g. poor living conditions
- No chance to go to school
- Unrealistic expectations

Activity – money folding – 1000 note

See if participants reject the money even as you continue to fold it mercilessly. Also put it in dirt and still ask how many want it.

3. Coping with emotions

Recognizing and appreciating emotions in ourselves and being able to respond appropriately in regard to these emotions.

Causes of emotions

- Failure
- Conflicts
- Music
- Rejection

- Success
- Environment

There are many more causes

Management of emotions

- Be firm in control of your emotions
- Think before you speak to others.
- Seek guidance from mentors and relevant people.
- Always accept corrections
- Be firm by:-
 - Affirming
 - Asserting
 - Waiting for a response
- Avoid reacting and take time and respond rather.
- Identify source of emotion and follow accordingly
- Appreciate other peoples ideas and try to view issues also from peoples perspective.

4. Coping with stress.

Process of recognizing effects and sources of stress and acting upon it in a way that helps to control our level of stress

Stress – it is response to any situation it can be good or bad.

Types of stress

- Useful stress – natural human responses that aid positive adaptation of a situation.
- Distress – natural human responses that are destructive and non-adaptive in the occurrence of events.

Stress management

First identify the stressor

Easy criteria in managing stress is

- Avoid
- Alter
- Adopt
- Accept

Time management is very crucial as it helps avoid stress.

Idleness may be a cause for the recurring of the stressor thus it is important to keep one busy. Resource management is also key to reducing stressor.

5. Assertiveness

The ability to make a decision and stick to it. Also the ability to express one's views, opinions, requests, likes and dislikes in ways that does not threaten or punish the other person.

Categories of individuals in terms of expressions of opinions

- Passive
- Aggressive
- Assertive

Effects of lack of assertiveness

- Harassed
- Misused
- Intimidated
- Frustrated
- Silly
- Hopeless
- Misdirected

Activity - request the participant find space direct to the wall and push the wall.

Types of assertiveness

- Broken record – say it till it sticks.
- Fogging – give a partial reason for your decision.
- I-statement – acknowledge starting with I then use I to start a sentence where you prove your opinion e.g. I appreciate your interest in my project but I don't wish to involve you.

6. Effective communication

It involves exchanging of information, signals or messages both verbally and non-verbally. Communication fosters a lot of other skills thus it is very important to communicate effectively.

The process of communication

It involves four main elements:-

- Sender (coder)
- Message (content)
- Receiver (decoder)
- Feedback

Channels of communication: are the means, mediums, ways by which communication is passed. Examples are:-

- Mediators
- Memos, letters and bill boards.

Barriers of communication:

- Age
- Culture
- Relationship
- Social setup
- Moods
- State of mind
- Situation
- Language barriers

7. Peaceful conflict resolution

Non-violent ways of coming up with solutions to problems amongst ourselves in a community. Also measures of solving a disagreement without causing more problems.

Impact of conflict (both positive and negative)

- Brings change

- Brings out true character and personality of people.
- Loss of life and property.
- Breaks relations

Causes of conflicts

- Poor leadership
- Different perception of need and value
- Personal differences
- Long term oppression/violation of rights

Steps in resolving conflict peacefully

- Identify cause of conflict
- Look for ways of approaching aggravated parties
- Listen
- Call for mediation.
- Overlook
- Discuss
- Negotiate

Activity- write m 4 times in separate papers and put them in different ways and let the participants try and convince each other about the figure they have.

8. Peer pressure resistance

Peer- anyone with common interest and in the same situation. These could be members of the same profession, same age group or just people pursuing similar goals. *Pressure-* a force that drives an individual to do something.

Dealing with peer pressure

- Maintain high self esteem
- Make decision that is going to benefit you rather than please others.
- Be assertive
- Improve negotiation skills

Types of peer pressure

- Constructive
- Destructive

Examples of constructive peer pressure: Where peers encourage each other by pressuring others to reading so as to attain good grades in school.

9. Empathy

Ability to understand and appreciate what someone else feels and communicate the same to them. It is the ability put yourself in another person's situation and act as you would have been comfortable if they acted alike to you if you were in the same situation.

Activity – simulation: shoe exchange.

10. Interpersonal relation and friendship formation

It is a relationship between one person and another/others. It determines how people view you. It also creates basis for interaction.

Determinant of interpersonal relationships & friendship formation

- Age
- Occupation
- Character
- Social status
- Environment

11. Negotiation

It is the ability to discuss issues in calm and open manner in order to arrive at a common solution or consensus.

Types of characters to note in negotiation

- Passive – expresses themselves in a manner likely not to be understood or listened to
- Aggressive – expresses themselves and exerts violence/shows aggressiveness to those opposed to line of thought or ideas (s)he has expressed
- Assertive- stands up for what they believe in.

Note in negotiation common ground has to be arrived at thus some compromises are expected from participating parties.

12. Decision making

It is the ability to make sound decision and follow on to achieving pursued goal. It is a skill that should be practiced as it is very crucial.

Steps in decision making

- Identify the challenge
- List and search for available options
- Consider the outcome of all listed options
- Seek counsel
- Select from the list the most appropriate of all options
- Act
- Evaluate if outcome is desired if not review to see where mistake was made.

The 3c's consent

- C challenge
- C consequences
- C choice

13. Creative thinking

It is the ability of coming up with new ideas of doing something better than it was done before. It is also considered ability to easily adapt to situations by finding simple, fast and different solutions.

Activity – the pharaoh and the 4 trees

- A. B. C/ 11,12, 13
- Joining the dots
- Counting the squares

14. Critical thinking

It is the ability to analyze a situation in an objective manner so as to make an informed and responsible decision. It enables us to use our resources including talents and gifts efficiently.

Activity - the human knot

- Ask some participants to volunteer themselves blindfold them give them number and ask them to organize themselves in order according to their numbers.

15. Problem solving

It is the ability to establish the underlined main issue that is creating a need for deep reflection and mainly making important solutions.

The life skills trainers were Jane Cate Mbuti and Nancy Lisi. They both started as volunteers at Lifeskills Training Centre (the training arm of Lifeskills Promoters) in 2007 and are now recognized as Associate Consultants – Youth and Children. This reflects the training and experience they have both received while working at Lifeskills Training Centre in various projects such as the ‘Upscaled Response to HIV and AIDS’ (Tearfund UK/Pepfar 2008-2011), Living with HIV’ (sponsored by Standard Chartered Bank 2009-2010).

Jane Cate Mbuti is a diploma holder in Business Administration (2010) while Nancy Lisi has a diploma in actuarial sciences (2008) and a Bachelor degree in Commerce (2011).

Appendix D
Timetable for the Training Weekend
in Mindfulness Skills (March 11-13, 2011)

1. Participants are encouraged to be silent except during meals' time.
2. They write journals during free time.
3. Each one should have gone through the Labyrinth at least once during the weekend.

Please observe strict silence in the prayer garden.

Friday	Saturday	Sunday
5.00 pm Arrival	7.15 Jesus Prayer – Step 2	7.15 Jesus Prayer – Step 7
7.00 Selvam's introduction Lo	8.00 Breakfast	8.00 Breakfast
	8.45 Jesus Prayer – Step 3	8.45 Jesus Prayer – Step 4
	9.15 Journaling – Session 2	9.15 Journaling Time
	10.30 Tea break	9.45 Statement about the Day
7.30pm Supper	11.00 Jesus Prayer- Step 4	10.00 Jesus Prayer – Step 5
8.15pm Journaling – Session 1	11.40 Labyrinth Time Time for Personal journaling for others	10.30 Tea break
9.15pm Jesus Prayer – Step 1	1.00 Lunch Rest in Silence	11.00 Evaluation together Discussion on way forward
	2.15 Jesus Prayer – Step 3	
	3.00 Labyrinth Time	
	4.00 Jesus Prayer – Step 5	
	4.30 Tea Break	
	5.00 Jesus Prayer – Step 6	11.40 Sunday Eucharist
	6.15 Common prayer (optional)	1.00 Lunch Good bye
	7.30 Supper	
	8.15 River Me Video Evaluation of the day	

Note: Similar timetable was used for the life-skills training weekend.

Appendix E

List of Sampled Locations for the Survey

No	Group	Description
1.	ISM – Tangaza	UG Students of social science
2.	ISC – Tangaza	UG Students of social communication
3.	Catholic University of Eastern Africa	UG students of various subjects
4.	Boystown	Students of Technical training
5.	Mutuini	Suburban – Catholic youth group
6.	Dagoretti Market	Suburban – Catholic Youth Group
7.	St Aloysius Gonzaga Sec. School – graduates programme	Secondary school leavers – children of people with HIV
8.	Railway Training Institute	Diploma students
9.	Kenya Institute of Development Studies (KIDS)	Diploma students
10.	Foundation of Hope	Kibera youth group using arts and talents talents to create awareness on HIV AIDS
11.	Pamoja Foundation	Youth running a radio station
12.	Guadalupe Youth	Catholic youth group
13.	Juan Diago Choir	Catholic youth choir – mostly working youth
14.	Kenya Methodist university – Town campus	Undergraduate Students
15.	Mathare – Maji Mazuri Youth Group	Youths out of School Mathare Informal settlements
16.	Upperhill SFC	Catholic Young adults Group
17.	Upperhill Youth group	Catholic Youth Group
18.	Makadara Football club	Footballer from Eastlands of Nairobi
19.	Divine Mercy parish youth	Catholic youth group
20.	Kenya Social Works Institute	UG students – targeted Muslim students
21.	Kiamaiko Muslim Youth Huruma	Muslim Youth out of school
22.	Karanja women and men muslim group	a group of young mothers and youths out of school