

Chapter 7:

Discussion of Results, Conclusions, Limitations and Recommendations

“Even if there is only one possible unified theory, it is just a set of rules and equations. What is it that breathes fire into the equations and makes a universe for them to describe?”

Stephen Hawking

The current study investigates the relationships between meaning in life, sense of coherence and ability to cope in young adults. In chapter five, the research questions, hypotheses and postulates regarding the relationships between meaning in life, sense of coherence and level of coping in terms of coping and not coping were described. In chapter six the results of various statistical procedures to investigate these relationships were presented.

In this chapter the findings of the present study are discussed and the results are then used to formulate conclusions for the current study in the context of theoretical and empirical research. Thereafter the study is evaluated in terms of some limitations, and the chapter is concluded with recommendations for future research.

7.1 Discussion of Results

The current study attempts to investigate the following research question: Are there relationships between meaning in life, sense of coherence and ability to cope in young

adults? As a consequence of this broad research question several other questions are posed. One such question concerns whether the nature of the relationships mentioned above would differ between groups based on certain biographical variables. Furthermore, in order to investigate the nature of the relationship between meaning in life, sense of coherence and ability to cope it was postulated that level of coping may be formulated as a dependent variable, and the question posed is whether sense of coherence or its components and meaning in life are able to predict differences in ability to cope. The results of the statistical analyses are discussed in the context of the possible meanings of the findings.

7.1.1 Evaluation of the Applicability of the Measurement Instruments

Factor analyses were conducted on all three measurement instruments selected for the current study, namely the Purpose in Life test (Crumbaugh & Maholick, 1981), the Orientation to Life questionnaire (Antonovsky, 1987) and the Adolescent Coping Scale (1993), in order to determine the structural validity of the measures. The results of the factor analyses indicate that while the structural validity of the Purpose in Life test (Crumbaugh & Maholick, 1981) supports the use of a single score to measure meaning in life, the Orientation to Life questionnaire (Antonovsky, 1987) and the Adolescent Coping Scale (Frydenberg & Lewis, 1993) were not shown to have as strong structural validity for this particular sample.

The Orientation to Life questionnaire (Antonovsky, 1987) was shown to have slightly different subscales for the population in the current study than is suggested by the original three subscales of Comprehensibility, Manageability and Meaningfulness.

This indicates that there may be some differences in the factors on the Orientation to Life questionnaire (Antonovsky, 1987) in a South African population. Although this questionnaire has been widely used and researched in South Africa (for example Cloete, 2003; Strümpfer & Wissing, 1998), factor analyses for the subscales on South African population groups should be conducted. The findings of the present study however do support the literature, which indicates that sense of coherence should be assessed as a whole and not in terms of its components (Antonovsky, 1979; 1987), as the construct is an overall global orientation.

The factor analyses conducted on the Adolescent Coping Scale (Frydenberg & Lewis, 1993) revealed that although the authors are able to identify 18 separate coping strategies which can be further converted to three types of coping, the present study found no support for these groupings in the particular sample selected. The specific coping strategies selected by young people should be the focus of future research in South African populations.

7.1.2 Biographical Differences in Meaning in Life, Sense of Coherence and Coping

Within the scope of the study, an investigation of possible differences in meaning in life, sense of coherence and ability to cope based on certain groups was conducted. The groups identified were based on age, gender, home language and direction of study.

As can be seen in section 6.3.1 the results of the current study suggest that there are no significant differences in age in terms of meaning in life, sense of coherence and ability to cope.

According to Levinson's (1978) developmental theory, the *early adult transition* phase occurs between the ages of 17 and 22, and is characterized by individuals becoming more independent, and beginning to explore the world and make important life decisions, and between the ages of 22 and 28, individuals are *entering the adult world*. Erikson (1982) claims that the *identity versus identity confusion* stage occurs during adolescence, between approximately 10 to 20 years, where individuals must discover who they are and find direction for their lives, as they explore different roles. The early adulthood stage of the 20s and 30s, known as *intimacy versus isolation*, is where individuals must form close intimate relationships and friendships and continue to explore different life roles. Super (1980) describes adolescence as occurring between the ages 14 and 24, known as the *exploration* phase, and *establishment* is the early adulthood phase, which occurs between the ages 25 and 44.

In chapter 4 it was noted that in all of the above theories, individuals in the late adolescence/young adulthood life phase are described as being in a state where negotiating the transition from childhood to adulthood, exploring life roles and becoming more independent are required. The present study involved only first year students. Individuals who have just started their tertiary education are in the process of exploring life roles and pursuing independence. It is therefore a reasonable assumption that the participants in the current study are in a similar development stage, and as a result no differences in terms of meaning in life, sense of coherence and ability to cope were found.

The results of the current study also suggest that there are no significant gender differences in terms of meaning in life, sense of coherence and ability to cope.

While some researchers argue that there may be gender differences in terms of stress and coping (for example Basow, 1992; Wilson, 1995), others argue that there are no gender differences regarding stress and coping (for example Long, 2001; Mayer & Sutton, 1996). In a comparative *ex post facto* study by Long (2001), a sample (N=70) of 35 male managers and 35 female managers were administered a test battery including the Sense of Coherence scale (Antonovsky, 1987) in order to determine whether there are gender differences regarding occupational stress and coping. The results indicate that there are no significant gender differences regarding the perception of occupational stressors, as well as no significant gender differences in terms of coping resources (Long, 2001). The male group reported some difference however on the Meaningfulness subscale of the Sense of Coherence scale (Antonovsky, 1987), indicating that this group may perceive their work less positively than their female counterparts (Long, 2001). The results of this study should be interpreted with caution because the focus was on occupational stress only. However this study reports no significant gender differences regarding stress and coping, suggesting that both men and women may respond similarly to stressors and in the way they utilise various coping resources. The current study supports these findings.

The results of the current study suggest that there are no significant differences in home language (between English, Afrikaans and Other language participants) in terms of meaning in life, sense of coherence and ability to cope.

These findings are significant in light of the fact that the questionnaires were presented in English, and it was a possibility that English-speaking students may have been advantaged. It was thus concluded that home language did not have a significant influence.

Previous research findings have indicated that culture may have an influence on the development of sense of coherence (Bowman, 1997). If it is accepted that home language is a reasonable indicator or manifestation of cultural differences, the present study seems to suggest that there were no significant cultural differences, however further research in terms of language and culture differences for the three variables under consideration may be required.

The results of the current study suggest that there are no significant differences in direction of study (between BA excluding Law and Other degree participants) in terms of meaning in life, sense of coherence and ability to cope.

The present study involved only first year students and all of the participants had selected psychology as a subject as part of their degree course. It is possible that differences in stress and coping may be observed in individuals from different professions, however the participants in the present study have just commenced their tertiary education careers and differences in terms of direction of study are thus not expected. The current study supports this suggestion.

In the current study it was indicated that there were no differences between different age groups, genders, language groups, and direction of study in terms of any of the variables. It may thus be assumed that the sample was relatively homogeneous. The sample was thus considered as a whole for further statistical analyses.

7.1.3 The Relationship Between Meaning in Life and Sense of Coherence

In chapter five, a question posed is: Is there a relationship between meaning in life and sense of coherence? (see section 5.1.2), which suggests that meaning in life and sense of coherence may be related on both a theoretical and empirical level.

Section 6.4 indicates that significant correlations were found between meaning in life and the various aspects of sense of coherence. The Purpose in Life test (Crumbaugh & Maholick, 1981) scores exhibited strong positive correlation with the dimensions of the Sense of Coherence scale (Antonovsky, 1987).

There is an especially high correlation between meaning in life and the meaningfulness aspect of the sense of coherence construct, and they may be observed to measure the same construct. In the context of a predictive model such as the one in the current study, inclusion of highly correlated variables does not add significantly to the predictive power of the model, and as such either scores on the Purpose in Life test (Crumbaugh & Maholick, 1981) or those on the Meaningfulness subscale of the Sense of Coherence scale (Antonovsky, 1987) should be used as a predictive variable. Since meaning in life exhibited higher predictive ability the decision was made to exclude meaningfulness from the model.

Carstens and Spangenberg (1997), in a sample of clinical patients with major depressive disorder and control subjects (N=100), found that a low score on the Meaningfulness subscale of the Orientation to Life questionnaire/ Sense of Coherence scale (Antonovsky, 1987) was the best predictor of scores on depression (see section 3.3.4). Similarly, some researchers (for example Schulenberg, 2004) have criticised

the Purpose in Life test (Crumbaugh & Maholick, 1981), claiming that it is in fact an indirect measure of depression. Importantly, this may indicate that these instruments may be measuring similar constructs. In his research, Schulenberg (2004) used a sample of undergraduate students (N=341) in order to expand the psychometric properties of four logotherapy measures, namely the Purpose in Life Test/ PIL (Crumbaugh & Maholick, 1981), Life Purpose Questionnaire/ LPQ (Hablas & Hutzell, 1982; Hutzell, 1989), The Seeking of Noetic Goals test/ SONG (Crumbaugh, 1977), and the Meaning in Suffering Test/ MIST (Starck, 1985). He argues that not only is it essential to have reliable and valid measures of meaning, but also that it is important to understand the relationship between meaning and psychopathology, because meaning may aid individuals to handle life stressors more effectively (Schulenberg, 2004). He concluded that of all the tests researched, the Purpose in Life Test (Crumbaugh & Maholick, 1981) is the test which most accurately measures Frankl's (1992) particular conceptualisation of meaning. The total measures of the scores were found to be internally consistent. The study found that the Purpose in Life Test (Crumbaugh & Maholick, 1981) is associated positively with a number of variables such as extroversion, emotional stability and happiness, and negatively with a number of variables such as depression and anxiety (Schulenberg, 2004). Although correlations between the four measures were found, factor analyses were not conducted. It is important to investigate factor analyses in future research in order to determine the dimensional nature of the meaning construct.

There are significant positive correlations between meaning in life, sense of coherence and the various dimensions of sense of coherence. The current study thus lends support to the notion that meaning in life and the psychological evaluation of

situations as understandable, manageable and meaningful are indeed related. The ability to make sense of complex surroundings on a psychological level thus seems to be related to the extent to which an individual has discovered meaning in life. Individuals who struggle to make sense of their complex surroundings may also be observed to not have discovered meaning in life.

This is an important finding in the context of the current study because it lends support to the theory which claims that stress is only defined as such if an individual perceives an event or situation as a threat, and it is thus possible to refer to stress as a psychological state (Schlebusch, 2000). The current findings indicate conversely that if an individual perceives the environment as understandable, manageable and meaningful, he/she may not view events as threatening or stressful, as he/she is then able to make sense of stimuli.

7.1.4 The Relationship Between Meaning in Life and Coping

Section 6.4 indicates that significant positive correlations were found between meaning in life and ability to cope.

Meaning in life can be seen as an aspect of overall psychological well-being in that the current study supports research which states that meaning in life facilitates mental health and serves as a buffer against stress (Frankl, 1992; Yiu-kee & Tang, 1995). Furthermore, the results of the present study suggest that individuals who have discovered a high sense of meaning in life may well be observed to have a high ability to cope, through the selection of effective coping strategies. The findings from the present study provide strong evidence for the theory that meaning in life is an

important component of psychological well-being. Given the stressors that young people are faced with, meaning in life is both an important and a relevant topic, as these individuals may experience stress regarding gaining independence, seeking life roles, pursuing tertiary education, fears about the future, HIV/AIDS and so on which may lead them to search for meaning in their lives. In chapter 3 it was discussed that in industrial societies individuals may become bored easily, and pursue money, power, status and sexual pleasure to ward off feelings of emptiness, which may lead to psychological illness (Coetzer, 2003; Frankl, 1992). During late adolescence/young adulthood especially, boredom can lead to inappropriate ways of coping with emptiness, such as drug addiction and violence (Santrock, 2003). Young people may benefit from receiving some assistance when making decisions that require meaningful action and the current study, in line with the literature, emphasises that it is essential to understand how young people are able to cope with stressors as well as sustain psychological well-being.



7.1.5 The Relationship Between Sense of Coherence and Coping

Section 6.4 indicates that significant correlations were found between sense of coherence, the dimensions of sense of coherence and ability to cope. The relationships found between sense of coherence and the ability to cope with stressors indicate, in line with the findings, the possibility of relationships between a person's psychological assessment of situations and behavioural outcomes.

According to Antonovsky (1987), Generalised Resistance Resources (GRR's) are particularly important for resolving and managing the tension created in individuals when they are confronted with stressors. Importantly, GRR's enable individuals to

make sense of stressors (Marais, 1997). One of the most important GRR's is the various coping strategies that individuals select (Strümpfer, 1990). Based on the theoretical definition of sense of coherence as a global orientation which indicates the extent to which an individual perceives the world as understandable, manageable and meaningful (Antonovsky, 1987), it may be expected that the way in which an individual perceives their environment will influence their ability to cope. GRR's aid in developing and strengthening an individual's sense of coherence.

Thus it may be speculated that if individuals in the late adolescence/young adulthood life phase are able to develop effective coping strategies while they are still young, they may already begin to develop a strong sense of coherence which will persist well into their adult lives, because Antonovsky (1987) states that sense of coherence is stable and, after the age of 30, is unlikely to change at all. If individuals are encouraged to develop adequate coping strategies while they are young, they will most likely be able to successfully manage stressors throughout the lifespan.

7.1.6 Meaning in Life and Sense of Coherence as Predictors of Coping

As can be seen in the preceding discussions there are many significant correlations between meaning in life, the dimensions of sense of coherence and the ability to cope. The extent to which meaning in life and the dimensions of sense of coherence can predict differences in an individual's level of coping were also explored in the previous chapter and the results indicate strong findings. These findings state that meaning in life and sense of coherence are good predictors of an individual's ability to cope with stressors.

In no previous studies has an ordinary multiple linear regression been performed to investigate the relationships between meaning in life, sense of coherence and ability to cope, nor a logistic regression model been fitted to this end. Furthermore little research is available from which to infer possible causal relationships. As a result this aspect of the research is seen as a highly unique contribution.

The logistic regression model (see section 6.5.3) was able to correctly predict individuals who are not able to cope 97.6% of the time. The model was able to predict correctly which individuals are able to cope effectively 95.5% of the time. The overall predictive ability of the model was thus exceptionally high, being able to accurately predict whether or not an individual is coping 96.8% of the time. Importantly, these results indicate that intervention strategies aimed at encouraging individuals to identify and search for meaning in their lives, and strategies aimed at strengthening their sense of coherence are likely to be *highly effective* in terms of facilitating coping.

Interestingly, the Manageability subscale was able to accurately predict an individual's ability to cope or not cope 92.1% of the time. Manageability is described in chapter three as the extent to which one perceives that they have the available resources at their disposal to meet any situation's demands. Thus it may be speculated that manageability is the most important predictor of whether or not a young person will be able to select effective coping strategies to handle stressors. Meaning in life further contributes to the ability to cope.

Clearly, an individual's ability to cope can be predicted by the extent to which they have found meaning in life and the extent to which they have developed a sense of coherence. While Antonovsky (1987) suggests the use of the sense of coherence as a single measure, observing the components of sense of coherence would provide more of a multidimensional view of the relationship between all the variables in the study. As such the current study has made use of sense of coherence both as a single measure as well as in terms of its individual components.

The results of this model suggest that individuals who perceive their environments as manageable and comprehensible, and who have discovered meaning in life will possess a high ability to cope, through selecting coping strategies considered to be effective.



7.2 Conclusions

The conclusions based on the analyses of the data are:

- No differences in age, gender, language or direction of study groups were found in terms of meaning in life, sense of coherence and ability to cope. The extent to which culture influences purpose in life, sense of coherence and ability to cope is an area for further research.
- There is a positive relationship between meaning in life and an individual's ability to cope. There is thus a link between the extent to which an individual has discovered meaning in life and their ability to select effective coping strategies.
- A positive relationship exists between meaning in life and the components of sense of coherence, namely comprehensibility, manageability and meaningfulness, as well as with sense of coherence as a whole. The extent to which an individual

has discovered meaning in life is thus expected to be observed in individuals who perceive their environment as comprehensible, manageable and meaningful.

- Ability to cope exhibits a positive relationship with the components of sense of coherence, namely comprehensibility, manageability and meaningfulness, as well as with sense of coherence as a whole. Thus individuals seen to perceive their surroundings in a comprehensible, manageable and meaningful way would be expected to select effective coping strategies.
- The extent to which individuals perceive their surroundings as comprehensible and manageable, and the extent to which they have discovered meaning in life is indicative of whether or not they will be able to select effective coping strategies.

A general conclusion from this study is that there are in fact relationships between meaning in life, sense of coherence and ability to cope. The ability to select effective coping strategies appears to be dependent on an interaction of factors.



7.3 Limitations

The current study found relationships between meaning in life, sense of coherence and level of coping in young adults, and furthermore it was found that the extent to which an individual has discovered meaning in life and the extent to which he/she has developed a strong sense of coherence are good predictors of his/her ability to cope.

However, there are some limitations that need to be taken into account when interpreting the findings.

Firstly, although the sample was relatively large (N=258), further research needs to be conducted on different populations as the findings of this study apply only to the population that the sample was drawn from.

Secondly, although language groups were identified in order to control for cultural variables, further research is needed in order to identify cultural differences in meaning in life, sense of coherence and coping abilities of individuals from diverse backgrounds.

Although the current study investigated young peoples' ability to cope with stressors, no attempt was made to determine what these stressors are and research is needed in order to identify what leads to stress in young adults. Again, this is particularly important for the South African population as the stressors that individuals from this country are confronted with differ from the concerns and difficulties faced by young adults in other countries.

7.4 Recommendations

“On the other side was Hygeia, a daughter of Asklepios and the goddess who watched over the health of Athens. She was not involved in the treatment of the sick but was the guardian of wellness, in accordance with the belief that humanity could remain well if they lead a balanced life according to reason. In Rome she became known as Salus, and as a divinity of well-being in general.”

Dubos 1959/1979 (quoted in Strümpfer, 2003)

While this study found that the extent to which an adolescent/young adult has discovered meaning in life and the extent to which he/she has developed a strong sense of coherence are good predictors of his/her ability to cope, further research is needed in order to ascertain *how* young people actually cope with stressors.

Furthermore, research regarding the relationships between meaning in life, sense of coherence and coping ability needs to be researched on diverse cultural groups, especially in South Africa where stress and coping are salient issues.

It would be useful to conduct research on how coping is regulated across the life span, so that intervention strategies developed to help young people cope with stressors can facilitate adaptive coping not only in late adolescence/young adulthood, but throughout an individual's lifetime.

According to Carstens and Spangenberg (1997), both the Meaningfulness subscale and the Purpose in Life test (Crumbaugh & Maholick, 1981) are predictors of depression. If there are similarities between the Meaningfulness subscale of the SOC (Antonovsky, 1987) and the Purpose in Life Test (Crumbaugh & Maholick, 1981), and the current study found that this is indeed the case, then the possible links to depression will need to be explored in further detail in future research.

Based on the findings from the current study, it may be beneficial when dealing with young people especially, for healthcare professionals, educators and psychologists to find ways of creating an awareness aimed at enhancing available resources or GRR's and how to access these resources. If Manageability is the extent to which one

perceives that they have the available resources at their disposal to meet any situation's demands, then enhancing a young person's perception of their environment as manageable and enabling them to identify their available resources will facilitate effective coping. Frankl (1992) emphasises that the *spirit* is what gives individuals freedom as well as responsibility, and that in order to lead a fulfilled life, individuals must be aware of the human spirit and the resources within it (see chapter 3).

The practical implications for the findings of the above study may be aimed at promoting psychological well-being in young people with a view to improving quality of life by coping with stressors throughout the life span.

Tertiary educational settings should develop training programs which facilitate the development of coping strategies by enhancing awareness of meaning and resources in young people. Lecturers, student counsellors and psychologists, student representative councils and residences could become involved in teaching life skills aimed at making young people aware of their own resources as well as of the resources available at tertiary education institutions. These life skills which target the stress and coping behaviours of individuals, and the ability to identify resources should be taught early on so that young people are able to enter the adulthood phase of life successfully.

Resources at tertiary institutions could be broadened to include an early intervention program for first year students which teaches them to locate and maximise their own resources, utilise the resources at the tertiary institution, and encourage them to discover meaning in their lives. This could be in the form of career guidance,

psychological counselling, workshops, training courses, case studies, self-exploration weekends away, individual and group therapy, role modelling and mentoring of older students and community involvement projects.

7.5 Summary

A theoretical and empirical investigation of meaning in life, sense of coherence and coping with stress among young adults is the focus of the present study. The findings indicate that there is indeed value in meaning in life and sense of coherence as components of psychological well-being being explored and studied, as this is likely to impact how people may become motivated to achieve all that they can achieve at school, university, work and in daily life experiences. Also, there is strong evidence that an individual's perception of meaning in life and the extent to which a person has developed a strong sense of coherence is a good predictor of their ability to cope with stressors. Thus prevention strategies and early intervention programs aimed at encouraging young people to seek and identify meaning in their lives, and developing their sense of coherence in terms of maximising internal and external resources are highly likely to result in effective ways of managing stress and coping.

Although some may argue that stress resides with the individual and not within the environment (Schlebusch, 2000), it is the task of psychologists to manage the coping process of individuals (Viviers, 1998). Viviers (1998) argues that psychologists ought to create new ways of enhancing and encouraging coping strategies and behaviours within a salutogenic paradigm, in order to bring about wellness. It is possible that programs aimed at enhancing wellness, as well as the current paradigm shift that encourages wellness, will attract interest and allocation of resources from parties

interested and invested in the healthcare professions (Cohen, 1994). It has been argued that “Stress will be the issue of the decade beginning in the year 2000” (Minter, 1991, p. 42), and if it is true that “coping strategies are behavioural manifestations that can be explicated, modelled and learned” (Wissing & Vorster, 2000, p. 38), then there is much value in continuously addressing stressors by identifying what enables individuals to cope, particularly young people who are faced with major life transitions and stressors.

What we ought to be, we are capable of being! This is the challenge and meaning of life in the face of suffering.

We need not be slaves to incapacity and passivity. We need not become hapless victims of evil, either as its perpetrators or as its accomplices as passive bystanders.

We can undertake the joint task given to us as humans to combat poverty, oppression, injustices – to alleviate suffering.

We have experimented with evil. We know its consequences. Have we experimented with good? Do we know its power?

Teria Shantall (2002, p279)