CHAPTER 2: METHODS

2.1 Rationale

US data suggests that more adolescents die from suicide than AIDS, cancer, heart disease, birth defects and lung disease. According to the WHO, a teenage suicide occurs every 40 seconds and an attempt is made every 30 seconds. (Kaplan & Saddock, 1998). In the fight to prevent this growing social problem, intervention and prevention can be life saving.

There is little research around intervention and prevention of suicide in South Africa. The Suicide Prevention Program presented by the Depression and Anxiety Support Group South Africa aims to alert students and the community to the problem of adolescent suicidal behaviour and educate students about suicide as well as teaching them effective coping skills. Research shows that a lack of coping strategies in adolescents could result in these individuals being more susceptible to suicidal ideation (Paluszny & Davenport, 1991). Previous research conducted by the author looked at the effect of the program on suicide ideation specifically. This research revealed that the program might have tapped into other areas, such as coping.

Thus, in adding to previous research, the author feels it relevant to assess the effects of the suicide prevention program on coping. In this way, a greater understanding of the effects and benefits of the program can be understood and used in adding to and improving the program.

2.2 Aims

1. The present study aims to assess whether there is a change in coping strategies in adolescents following the presentation of a Suicide Prevention Program.
2. The present study also aims to investigate whether this change is different in adolescent boys and adolescent girls.

2.3 Research Questions

1. Is there a difference in suicide ideation between boys and girls in pre test and post-test?
2. Is there a difference in coping between boys and girls in pre test and post-test?
3. Is there a relationship between suicide ideation and coping?

2.1.1 Subjects

Subjects were grade 11 pupils at a model C school in Gauteng. The sample size was 74. The students were requested to participate in the study by filling in two questionnaires during a life skills period. Participation in the study was voluntary and subjects and their parents were required to give informed consent of participation. Both consent forms are given in appendix A.

This sample was appropriate as it involves adolescents – the target population. A non-random convenience sampling strategy was used. Thus, the sample was chosen for practical reasons. Even though such selection is not random, one would usually be willing to generalise to other similar schools and similar children (McBurney, 2001).

2.1.2 Instruments and Techniques

Demographic Questionnaire

A demographic questionnaire was used to ask the participants to state their age and gender (See Appendix A).

PANSI – Positive and Negative Suicide Ideation Scale

The PANSI (See Appendix A) is a 14 item inventory designed to measure the frequency of positive and negative thoughts related to suicidal behaviour. This is a self-report instrument with 8 items measuring negative ideation and 6 items measuring positive ideation.

Internal consistency for the Negative Ideation Sub Scale is 0.91, while the Positive Ideation Sub Scale is 0.80 (Osman, Guitierrez, Kopper, Barrios, Chiros, 1998). The test-retest reliability for the former sub scale is 0.79 and the latter 0.69. Concurrent validity is between 0.26 and 0.50 for the negative sub scale and between 0.39 and 0.52 for the positive sub scale (Winters, Myers and Proud, 2002). According to Lester (1998) the PANSI is as effective as Beck's hopelessness scale in predicting suicide ideation. It was generated with input from adolescents and college students and due to its bipolar nature it is ideal for use with adolescents, who change between positive and negative aspects of living depending on their mood or stressors (Winters et al., 2002). These authors also state that due to the simple format, quick completion and rich data that this scale provides, it should be used more in research on adolescent suicidality. It is acknowledged that this scale is relatively new and has not been used extensively in South Africa, but it appears to be fairly sound.

CASQ - Coping Across Situations Questionnaire

The CASQ (See Appendix A) is a 20 item self-report scale that assesses responses over eight developmental areas. It divides coping strategies into three factors; Active coping, which includes seeking advice and support systems, Internal coping, which includes assessing a situation and looking for a compromise and Withdrawal, which includes denial. The former factors are associated with functional coping, while the latter with dysfunctional coping (Seiffge-Krenke, 1992). The Internal consistencies for the sub scales are 0.80 for Active coping, 0.77 for Internal coping and 0.76 for Withdrawal. (Compas et al, 2001).

The scale was standardised on adolescents/ young adults between the ages of 15 and 27 years and has been used on samples in Finland, Israel and Germany and America. In America it was noted that a two-factor model produced a better fit.

It is acknowledged that this scale has not been used in South Africa previously, but due to the eight age specific areas in which the scale measures coping; school, parents, peers, partner, leisure time, self, job and future and the population on which it has been standardised it appears appropriate for use in this study.

2.1.3 Design

The present study is non-experimental in nature and between subjects' design. The first part of the study involved assessing the prevalence of suicide ideation, using the PANSI, and coping, using the CASQ, in the given sample. The second part of the study involved investigating whether there was a change in suicide ideation and

coping following the Suicide Prevention Program and whether this change was different for adolescent boys and adolescent girls.

2.1.4 Procedure

Consent was obtained from the department of education to access the sample required (See Appendix B). Prior to data collection, informed consent forms were distributed to parents and learners in Grade 11.

The researcher attended a grade 11 assembly at the school, where all learners were informed about the study. The class representatives collected the parental consent forms and handed them to the learners in their class. Forms were again collected by the class representative and returned to the guidance teacher, from whom the researcher collected them. All parental consent forms indicated the granting of permission by parents, for their children to take part in the study. The learners were also required to fill out informed consent forms, which they did prior to filling out the questionnaires.

It was stressed to all the learners that participation was completely voluntary and non-participation would not affect them negatively in any way. They were also free to withdraw from the process at any time. All learners stayed for the program afterwards.

The study was linked to a Suicide Prevention Program conducted by members of the South African Depression and Anxiety Group. Pupils were requested to participate in the study by filling in the questionnaires mentioned above, the duration of which took

no longer than 20 minutes. A Suicide Prevention Program presented by the South African Depression and Anxiety group followed this, the duration of which took no longer than 2 hours. Following a period of two weeks, pupils were requested to fill in the same two questionnaires. The same questionnaires were used as pre and post-tests so that comparisons could be drawn.

2.1.5 Data Analysis

The data was analysed quantitatively on the SPS statistical package and the analysis comprised four steps. Descriptive statistics were computed for the PANSI and the CASQ. Descriptive statistics enabled the degree of suicide ideation of the sample and coping strategies utilised by the sample to be determined. This analysis was also used to describe the sample in terms of gender. The CASQ and PANSI scores were correlated to determine the relationship between Active, Internal and Withdrawal coping strategies and positive and negative suicide ideation.

2.1.6 Steps of Analysis

1. The means (M) and standard deviations (SD) for both males and females were obtained for the PANSI. The reliability of the scales were assessed by the Cronbach Alpha *(α)*, revealing satisfactory high correlation between the subscales of the positive and negative ideation scales for both pre and post-tests and similar to those obtained by Osman, Gutierrez, Kopper, Barrios and Chiros (1998), who developed and validated the PANSI in two studies with an American sample. The results of the reliability of the PANSI in this study and a comparison of the results with the above-mentioned studies is summarised in Table 1.

Table 1 Comparison of standardised Cronbach Coefficient Alpha (α) obtained for the PANSI between the South African sample in this study and Osman, Gutierrez, Kopper, Barrios and Chiros (1998) American samples in study 1 and 2.

PANSI	**Cronbach's Alpha in this study – South African sample**	**Cronbach's Alpha in Osman et al – American sample (study 1)**	**Cronbach's Alpha in Osman et al – American sample (study 2)**
POS_PR	0.802	0.80	0.82
NEG_PR	0.926	0.91	0.93
POS_PO	0.754	0.80	0.82
NEG_RO	0.916	0.91	0.93

2. The means (*M*) and standard deviations (*SD*) for both males and females were obtained for the CASQ. At this stage the reliability of the scales were assessed by the Cronbach Alpha (α), revealing satisfactorily high correlations between the sub-scales of each type of coping strategy for both pre and post-tests and similar to those obtained by Seiffge-Krenke, who derived and validated the CASQ and has used it on adolescent samples in Germany and Israel. See table 2.2 for the results of the Cronbach Alpha Coefficient (α) in this study and for a comparison with the above-mentioned studies.

Table 2 Comparison of standardised Cronbach Coefficient Alpha (α) obtained for the CASQ between the South African sample in this study and Seiffge-Krenke's (1990) German and Israeli samples.

CASQ	Cronbach's Alpha in this study – South African sample	Cronbach's Alpha in Seiffge-Krenke study – German sample	Cronbach's Alpha in Seiffge-Krenke study – Israeli sample.
ACT_PR	0.745	0.80	0.72
INT_PR	0.693	0.77	0.71
WD_PR	0.738	0.72	0.60
ACT_PO	0.793	0.80	0.72
INT_PO	0.768	0.77	0.71
WD_PO	0.738	0.72	0.60

The coping across situations questionnaire is factorised into three coping strategies, Active, Internal and Withdrawal coping. Paired t-tests then compared males and females on each coping strategy paired with another coping strategy, in order to determine if there is a significant difference between each coping strategy for males and females.

3. A correlation was computed between the PANSI and the CASQ in order to determine the relationship between Active, Internal, and Withdrawal coping and positive and negative suicide ideation.

2.1.7 Ethical Considerations

This study was approved by the University Ethics Committee and Higher Degrees (See Appendix B). Subjects and their parents/guardians were asked to complete consent forms if they wished to participate in the study (See Appendix B). The principal of the school gave written consent for the study to be carried out at the school (See Appendix B). Because pre and post-tests needed to be compared subjects were asked to fill in the last four digits of their telephone number so that tests could be linked. Thus, this was used as a code instead of filling in their name. Subjects

were asked to remember the code for the post-test. Consent forms and questionnaires were handed in separately so that the researcher could not connect the two. In this way, confidentiality and anonymity were preserved.

This study chose to focus on suicide ideation, which represents the earliest stage of suicide risk. Pupils were given the number of the South African Depression and Anxiety Group if they felt that they needed further information or support. Furthermore, the presenters of the Suicide Prevention Program were trained counsellors and were available after the Program if subjects wanted to ask questions or simply to talk to someone. The South African Depression and Anxiety Group's program had several goals. These included raising awareness of the causes and appropriate treatment for depression and suicide, teaching adolescents relevant coping skills to cope with pressures of everyday life, and educating the youth about mental health resources that are available.