CHAPTER 3: RESULTS AND DISCUSSION

The following chapter will outline the results and discussion of the study.

3.1 Is there a difference in suicide ideation between boys and girls?

Suicide ideation was assessed before and after a suicide prevention program. Firstly, it was ascertained whether positive and negative suicide ideation was different for boys and girls preceding the intervention. Secondly, whether positive and negative suicide ideation was different for boys and girls after the intervention. And finally, whether there was a change in suicide ideation following the suicide prevention program.

Data was collected on 74 individuals (26 males and 48 females).

The degree of suicide ideation was investigated using the PANSI- positive and negative ideation scores. The t-test was used to evaluate the differences in means between the two groups – males and females.

The Degree of Suicide Ideation before the Suicide prevention program (pre-test)

For the pre-test for Positive Ideation (POS_PR), the mean score for males was 3.95 (SD = 0.55). While the mean score for females was 3.87 (SD = 0.70). The difference for the Positive Ideation Scale was not significant, which means that boys and girls did not differ significantly on the Positive Ideation Scale.

For the pre-test for Negative Ideation (NEG_PR), the mean score for males was 1.18 (SD = 0.26). While the mean score for females was 1.45 (SD = 0.76). Negative ideation was significantly different for males and females at the 95% confidence level (p = 0.005).

Table 3 provides a summary of the pre-test results.

Table 3: Degree of Suicide Ideation before the intervention (Males Vs Females)

Gender	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*	*P-Value*
POS_PR Male	*26*	*3.9551*	*0.55087*	*0.10804*	
Female	*48*	*3.8799*	*0.70418*	*0.10164*	*0.260*
NEG_PR Male	*26*	*1.1827*	*0.25795*	*0.05059*	
Female	*48*	*1.4576*	*0.76368*	*0.11023*	*0.005*

This study looked at the positive and negative suicide ideation scores for males and females and found that both scored higher on the PANSI positive ideation scale than the PANSI negative ideation scale. This is indicative of a sample where the overall outlook on life is positive, with low levels of suicide ideation. Females scored higher on both the PANSI positive ideation scale and PANSI negative ideation scale than males in the pre-test. Although these results were not significant research done by Nolen-Hoeksema and Girgus (1994) shows that, females use a more ruminative style of coping than males, which leads to higher levels of depression. This would be indicative of a higher score on the PANSI negative ideation scale for females. Canetto

(1997) emphasises that a higher percentage of females are likely to engage in suicide ideation. The results of this study confirm what was found in the literature in that females have a higher negative suicide ideation than males in the pre-test (mean for females = 1.4576). The results also indicate that females score higher than males on the PANSI positive ideation scale, indicating a more positive outlook on life.

Therefore the results indicate that females may ruminate and think more deeply about certain problems (Nolen-Hoeksema and Girgus, 1994), may have lower self-esteem (Cetin, 2001; Marsh, 1989), and may have more difficulty differentiating themselves from the family (Berg-Cross, 2000), all of which make them more vulnerable to depression and contribute to a higher score on the PANSI negative ideation scale than males, thus the results concur with the literature. Also that females solve their problems in a manner, which results in a more positive outlook on life, using more cognitive coping strategies and utilising more social support, than males do, hence scoring higher on the PANSI positive ideation scale than males.

The Degree of Suicide Ideation after the Suicide Prevention Program (post-test)

For the post-test for Positive Ideation (POS_PO), the mean score for males was 4.01 (SD = 0.69). While the mean score for females was 3.84 (SD = 0.57). The difference for the Positive Ideation Scale was not significant, which means boys and girls scores for positive ideation were not significantly different.

For the post-test for Negative Ideation (NEG_PO), the mean score for males was 1.35 (SD = 0.55). While the mean score for females was 1.41 (SD = 0.64). The difference

for the Negative Ideation Scale was not significant, which means boys and girls scores for negative ideation were not significantly different.

Table 4 provides a summary of the post-test results.

Table 4: Degree of Suicide Ideation after the intervention (Males Vs Females)

Gender	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*	*P-Value*
POS_PO Male	*26*	*4.0128*	*0.69109*	*0.13553*	
Female	*48*	*3.8438*	*0.57056*	*0.08235*	*0.987*
NEG_PO Male	*26*	*1.3558*	*0.55867*	*0.10956*	
Female	*48*	*1.4167*	*0.64995*	*0.09381*	*0.597*

Results from the study indicate that negative suicide ideation is significant, as it was significant in the pre-test. However, there is no significant difference in suicide ideation between boys and girls in pre-test versus post test. Possible reasons for this are explored below:

Length of the Measure

It is relevant to mention the impact of the length of the PANSI and the duration of time between the pre-test and post-test. The questionnaire was short and the time period between pre and post-tests was short. Thus, it may have been that subjects recalled their answers in the pre-test and thus tried to be consistent in the post-test. In

the event that the latter did in fact occur, it would mean that the results were skewed in a sense that they would not reflect the true thoughts of the subjects.

Length of the Intervention

Also, it is likely that a two-week period is too short a time to compare or trace a shift in thought. It is important to recognise that it is debatable as to whether a two-hour intervention could make a lasting impact. To educate someone and guide someone through such a multifaceted, sensitive and complex phenomenon, as suicide should be approached in a progressive and flexible manner that encompasses a greater time span. Prevention of suicide cannot occur in a vacuum. Any effective prevention program must be comprehensive, collaborative and co-ordinated with other related prevention orientated programs.

Most authors advocate a broad range of preventative intervention acknowledging the diversity of behaviours, populations and settings. This is especially challenging in a multicultural setting. Nevertheless, we should not expect that any preventative intervention is universal in its application, reception or predicted outcome. Many recommendations remain targeted at suspected high-suicide risk individuals.

Goals of such interventions might include, minimising alcohol and other substance abuse, enhancing abilities to master age-appropriate developmental tasks and healthy family functioning. Thus encompassing the improvement of coping skills and the use of methods that inevitably fall within the boundaries of psychology. Strategies include, but are not limited to, assessment, surveillance, information, dissemination,

preventative education, problem-identification and referral. From this it is clear, that the prevention program in question could not practically have been so extensive.

Because suicide is such a drastic and extreme act, studies and research tends to be specific. This is addressed in the literature by stating that despite the large body of knowledge about suicide there are few studies on the frequency of suicide ideation in representative general population samples. In light of the fact that in the past decade suicidality among children and adolescents has received increasing attention. It is submitted that it is time for progressive programs to address suicide perhaps using the program at hand, being more general and on a broad level, as a precursor. As suicidality is on the increase, valuable and insightful information on the tendency of and shifts in groups with regard to suicide and depression issues could be sought.

Although both suicide ideation and coping strategies did not significantly change following the intervention it is urged that this does not discredit the entire intervention but stresses that this could in fact be a precursor, eventually adapted and extended to determine high-risk individuals and consequently more intense areas.

3.2 Is there a difference in coping between boys and girls?

Coping was assessed before and after a suicide prevention program. Firstly, it was ascertained whether coping was different for boys and girls preceding the intervention. Secondly, whether coping was different for boys and girls after the intervention. And finally, whether there was a change in coping following the suicide prevention program.

The degree of coping was investigated using the CASQ- Active, Withdrawal and Internal coping scores. The t-test was used to evaluate the differences in means between the two groups – males and females.

The Degree of Coping before the Suicide prevention program (pre-test)

For the pre-test for Active Coping (ACT_PR), the mean score for males was 2.22 (SD = 0.99). While the mean score for females was 2.50 (SD = 1.29). The difference for Active Coping was not significant, which means that boys and girls did not differ significantly on the Active Coping Scale.

For the pre-test for Internal Coping (INT_PR), the mean score for males was 2.45 (SD = 1.34). While the mean score for females was 2.98 (SD = 1.37). The difference for Internal Coping was not significant, which means that boys and girls did not differ significantly on the Internal Coping Scale.

For the pre-test for Withdrawal Coping (WD-PR), the mean score for males was 1.54 (SD = 1.11). While the mean score for females was 1.72 (SD = 1.25). The difference for Withdrawal Coping was not significant, which means that boys and girls did not differ significantly on the Withdrawal Coping Scale

Table 5 provides a summary of the pre-test results.

Table 5: Degree of Coping before the intervention (Males Vs Females)

Gender	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*	*P-Value*
ACT_PR Male	*26*	*2.2253*	*0.99973*	*0.19606*	*0.122*
Female	*48*	*2.5089*	*1.29124*	*0.18637*	
INT_PR Male	*26*	*2.4551*	*1.34210*	*0.26321*	*0.979*
Female	*48*	*2.9896*	*1.37712*	*0.19877*	
WD_PR Male	*26*	*1.5495*	*1.11443*	*0.21856*	*0.505*
Female	*48*	*1.7292*	*1.25348*	*0.18092*	

The Degree of Coping after the Suicide Prevention Program (post-test)

For the post-test for Active Coping (ACT_PO), the mean score for males was 2.39 (SD = 1.15). While the mean score for females was 2.72 (SD = 1.42). The difference for the Active Coping Scale was not significant, which means boys and girls scores for Active Coping were not significantly different.

For the post-test for Internal Coping (INT_PO), the mean score for males was 2.87 (SD = 1.73). While the mean score for females was 3.12 (SD = 1.68). The difference for the Internal Coping Scale was not significant, which means boys and girls scores for Internal Coping were not significantly different.

For the post-test for Withdrawal Coping (WD_PO), the mean score for males was 1.73 (SD = 1.26). While the mean score for females was 1.73 (SD = 1.31). The difference for the Withdrawal Coping Scale was not significant, which means boys and girls scores for Withdrawal Coping were not significantly different

Table 6 provides a summary of the post-test results.

Table 6: Degree of Coping after the intervention (Males Vs Females)

Gender	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*	*P-Value*
ACT_PR Male	*26*	*2.3938*	*1.15737*	*0.23625*	*0.461*
Female	*48*	*2.7232*	*1.42504*	*0.20569*	
INT_PR Male	*26*	*2.8750*	*1.73710*	*0.35458*	*0.493*
Female	*48*	*3.1215*	*1.68000*	*0.24249*	
WD_PR Male	*26*	*1.7381*	*1.26636*	*0.25849*	
Female	*48*	*1.7341*	*1.31007*	*0.18909*	*0.811*

This study also compared males and females on the three coping strategies and found that both males and females scored highest on *Internal* coping, followed by *Active* coping and scored lowest on *Withdrawal*. Females scored higher than males, within each coping strategy. The results of this study therefore refute the stereotypical beliefs that females use more Active and therefore functional coping strategies and males use more Withdrawal or dysfunctional coping strategies (Frydenburg, 1997; Phelps and Jarvis, 1993; Nolen-Hoeksema, 1987).

In a South African study by Wissing, Claassens and Du Toit (1998) only males were found to exhibit more rational cognitive styles of coping. This is partially corroborated in the results of this study, which shows both males and females using a

cognitive strategy, Internal coping, as the dominant style of coping. The above finding and the results of this study however, refute other studies that say boys ignore the problem more than girls do (Frydenburg, 1997), boys use Withdrawal coping more than girls (Seiffge-Krenke, 1992) and boys use avoidant coping strategies more than girls (Phelps and Jarvis, 1994).

Govender and Killian (2001) found that females are more prone to emotion-focused coping strategies, while males are more likely to exhibit problem-focused coping strategies. These findings are contradictory to the results of this study, which highlights the fact that males and females cope in similar manners and socialisation practices, which have attempted to make females more emotion-focused and males more problem-focused, are either falling away as South African society develops or they play little role in the manner in which each gender copes. As a society, we are possibly moving away from the stereotypic roles that Nolen-Hoeksema (1987) explains as the origins of a response style. These results do not show that being inActive is part of the female stereotype, while being Active is part of the male stereotype. Instead, these results show that males and females cope in similar manners.

Frydenburg (1997) found that males are more likely to get involved with alternative activities, like sport, as a means of coping with a stressful encounter, while females are more likely to use social support. This study clearly shows that both males and females Actively deal with a stressful encounter and that females do so more than males. Males are also more likely to Actively deal with their problem rather than using distraction, as a coping mechanism. With adolescent females having the same

control over their behaviour patterns as adolescent males, they should not be more depressed or prone to higher levels of suicide ideation, as put forward by Belle (1991) and Nolen-Hoeksema and Girgus (1994). This is corroborated further by results of this study that show females scoring higher on the PANSI positive ideation scale and PANSI negative ideation scale than males and with the majority of females scoring highest on the PANSI positive ideation. The relationship between coping strategies and suicide ideation will be discussed in the next section, but preliminary results indicate a positive relationship between coping strategy and suicide ideation.

The results of this study are therefore more in line with the Folkman and Lazarus (1980) study, which showed no gender differences in the use of emotion-focused coping skills. The results of this study are further consistent with Galaif, Sussman, Chou and Wills (2003) who found that females engaged in externalising behaviours, which is usually characteristic of males.

Within each coping strategy, each gender would use different methods of coping, which would fall within the broad band of that coping strategy. For example, Active coping would include talking to parents about the problem, getting help from institutions, getting help from people in similar situations, trying to solve the problem with help from friends, among other ways. The findings from this study show that males and females use different techniques to cope with problems. These techniques would still fall within the factor of Active coping. This is in line with other studies that found that girls, rather than boys, are more likely to use social support and rely on others for approval (Frydenburg, 1997; Seiffge-Krenke, 1992; Carver *et al*, 1989; Wissing *et al*, 1998).

Intervention is gender-fair

Much of the discussion has touched on the fact that the results prove to be insignificant following the intervention, however a true positive aspect deserving of mention is the fact that the variable gender did not effect the intervention. In other words, the program is gender-fair. This lends more to the idea that it is in fact a flexible program that can be used on large diverse groups. This is important as it suggests that the program can be presented to both males and females and separate programs are unnecessary.

In light of the present and pressing social context it is clear that this intervention as it stands is not enough. The issue is increasingly surfacing in the press and statistics are on the increase, for example in South Africa approximately 17,2 deaths per 100 000 (8% of all deaths) are as a result of suicide. This relates only to deaths reported by academic hospitals. The real figure is much higher. Thus yes, the intervention in this form needs to be complemented, extended and the limitations recognised but it is a precursor nonetheless.

3.3Is there a relationship between suicide ideation and coping?

The Degree of Relationship between coping and suicide ideation before the intervention

The relationship between coping strategies and suicide ideation was investigated by correlating the Active, Internal and Withdrawal coping scales with pre-PANSI positive (POS_PR) and pre_PANSI negative ideation scores (NEG_PR). Significant

correlations indicate an association between the two variables, and the size of the correlation indicates the strength of the relationship.

NEG_PR was significantly correlated with POS_PR (r= -.594, p<.000). A correlation matrix further revealed a high significant correlation between Active and Internal Coping (r= .649, p<.000). There are moderate significant correlations between Active Coping and Withdrawal Coping (r=.234, p<0.044) and Internal Coping and Withdrawal Coping (r=.247, p<0.034).

Table 7 provides a summary of these results.

Table 4.14: Correlation of coping and suicide ideation before the Intervention

	ACT_PR	*INT_PR*	*WD_PR*
POS_PR	*0.167*	*0.141*	*-0.198*
NEG_PR	*-0.216*	*-0.116*	*0.160*

** Correlation is significant at the 0.01 level

* Correlation is significant at the 0.05 level

The Degree of Relationship between coping and suicide ideation after the intervention

NEG_PO was significantly correlated with POS_PO (r= -.556, p<.000). NEG_PO had a moderate negative correlation with Active Coping (r=-.300, p<0.010) and Internal Coping (r=-.320, p<.006). A correlation matrix further revealed a high

significant correlation between Active and Internal Coping (r= .735, p<.000). There are moderate significant correlations between Active Coping and Withdrawal Coping (r=.264, p<0.025) and Internal Coping and Withdrawal Coping (r=.278, p<0.018).

Table 8 provides a summary of these results.

Table 8 : Correlation of coping and suicide ideation after the Intervention

	ACT_PO	*INT_PO*	*WD_PO*
POS_PO	*0.163*	*0.092*	*-0.184*
NEG_PO	*-0.300**	*-0.320***	*0.098*

** Correlation is significant at the 0.01 level

- Correlation is significant at the 0.05 level

The aim of this part of the study was to investigate the relationship between coping strategies and levels of suicide ideation. The positive suicide ideation and negative suicide ideation in the pre-test were correlated with Active, Internal and Withdrawal coping strategies. It was found that positive suicide ideation in the pre-test and negative suicide ideation in the pre-test as well as positive suicide ideation in the post test and negative suicide ideation in the post-test were significantly positively correlated which is expected. In other words, the more positive suicide ideation one has the less their negative suicide ideation will be and visa versa.

The correlation matrix further revealed a high correlation between ACTIVE and INTERNAL coping, significant at the 0.001 level. This would be expected, as they are both functional coping strategies. Moderate correlations were obtained between ACTIVE and WITHDRAWAL and between INTERNAL and WITHDRAWAL, both significant at the 0.001 level. This would also be expected, as these are all coping strategies, part of the same instrument.

In the post-test negative suicide ideation was significantly negatively correlated with Acting Coping and Internal Coping, which means that as Active and Internal Coping increased negative suicide ideation decreased. The suicide prevention program tapped into active coping specifically as it encouraged participants to seek out help when they feel suicidal, for example phone a help line or tell a friend how you are feeling.

Thus, there is no relationship between coping and suicide ideation but there is a relationship between the subscales, which one would expect.

Summary of Results

These results indicate that positive ideation was not significantly different for boys and girls in the pre-test, whereas girls scored higher than boys for negative ideation in the pre-test. Also for the post-test, boys and girls scores for both positive and negative ideation was not significantly different. The results indicate that Active coping; Internal coping and Withdrawal coping were not significantly different for boys and girls in the pre-test, as well as in the post test. A negative relationship appears to exist

between NEG_PO and Active Coping. Active Coping is strongly related to Internal Coping and moderately related to Withdrawal Coping. Also, Internal coping is moderately related to Withdrawal Coping.