DIFFERENCES IN COPING STRATEGIES AND THEIR CONTRIBUTION TOWARD ADOLESCENT SUICIDE IDEATION ACROSS RACE

Ancel George
Department of Psychology, University of the Free State, Bloemfontein
georgeaa@ufs.ac.za

ABSTRACT

The well-being of adolescents is influenced by their ability to cope with various challenges they experience during this developmental period. Living in a multicultural society, group differences and other socially dividing factors could influence various psychosocial aspects of their lives. The purpose of this article is to explore the contribution of coping strategies across race and how they influence suicide ideation in different race groups. Non-experimental, cross-sectional research was conducted using a criterion group design. A random sample of 600 learners was gathered from ten schools in the Northern Cape Province. Data were collected using the Suicidal Ideation Questionnaire for Adolescents, and COPE Questionnaire. Results indicate that black participants reported higher use of dysfunctional coping strategies as compared to the other race groups, while the coping subscales for white participants explained the highest variance for suicide ideation. Further studies are suggested to explore the underlying reasons for the high levels of dysfunctional coping strategies in some groups in particular.

Key words: coping resources, emotion-focused coping, problem-focused coping, dysfunctional coping

INTRODUCTION

Well-being of adolescents is a key aspect in ensuring a strong and healthy future for our society. In many ways, their degree of well-being is attributed to how they utilise various coping resources at their disposal when responding to personal, social and environmental challenges (Hutchinson, Stuart and Pretorius, 2007; Santrock, 2003; Hobfoll, 1998; 1988). Coping resources are viewed as objects, personality traits, circumstances and energies within the individual that, when utilised effectively, will lead to the use of coping strategies and decision-making abilities that are more effective (Hutchinson et al., 2007; Hobfoll, 1988). Although there are many indicators of adolescent maladaptive behaviour, suicidal behaviour has exemplified itself as a significant indicator (George, 2010, 2005; Reddy, James, Sewpaul, Koopman, Funani, Sifunda, Josie, Masuka, Kambaran and Omardien, 2010). Employing effective coping strategies were found to buffer against suicide ideation, while improving an individual's general well-being (Meehan, Peirson and Fridjhon, 2007; Freydenberg and Lewis, 2004).

Adolescence is widely considered as a period of increased stress resulting from the multi-layered personal, cognitive and social development that accompanies this stage of life (Sigelman and Rider, 2009; Louw, Louw and Ferns, 2007; Seiffge-Krenke, 2006). In addition to dealing with developmental changes, many South African adolescents are also confronted by chronic levels of poverty, violence, high levels of family conflict and the legacy of a racially and socially divided society (Freeman, 2007; Louw et al., 2007; Barbarin and Richter, 2003; Madu and Matla, 2003). Although progress has been made, many adolescents are still having difficulty in coping with the emotional and social demands that accompany this stage of life, often leading to the display of high-risk and impulsive behaviour such as suicide (White, 2009; Louw et al., 2007).

Currently, suicide (self-inflicted and destructive acts that end in death) is viewed as one of the leading causes of death among young people aged 15 to 25 years (Gvion and Apter, 2012; Sadock and Sadock, 2007). According to Stark, Joubert, Struwig, Pretorius, Van der Merwe, Botha, Kotzé and Krynauw (2010), 11.5% of all adolescent deaths can be attributed to suicidal behaviour, while a national schools youth risk survey reported, 20.7% of learners, had considered committing suicide (suicide ideation) in a six month period prior to the survey, 16.8 % of learners had attempted to commit suicide and an even greater number (21.4%) had attempted suicide more than once (Reddy et al., 2010). Although a considerable number of research on suicide behaviour have been conducted within the South African context (Reddy et al., 2010; Schlebusch, 2005), much more investigation is needed in

understanding how it impacts on adolescent well-being and how they can effectively cope with this global phenomena.

Coping is viewed as the efforts people make to manage potentially harmful or stressful situations (Caltabiano, Byrne, Martin and Sarafino, 2002). The mechanism of coping assumes that stressors and resources emanating from the personal and contextual factors, as well as life crises and transitions, all interact to influence how individuals appraise and cope with challenges (Moos and Schaefer, 1993). Effective coping skills are reported to decrease levels of suicide ideation and the frequency of suicide attempts by adolescents, while less effective coping is associated with higher levels of suicide ideation (Israelashvili, Gilad-Osovitzki and Asherov, 2006; Goldston, Daniel, Reboussin, Reboussin, Frazer and Harris, 2001). Furthermore, the increased incidence of suicide ideation has also been associated with a fluctuation of emotions and a lack of sufficient coping skills among adolescents (Israelashvili et al., 2006).

A distinction can be made between problem-focused coping and emotion-focused coping (Compton, 2005; Caltabiano et al., 2002). Problem-focused coping involves using strategies aimed at directly altering or changing the stressor, including one's reasoning about the stressor (Compton, 2005). Emotion-focused coping includes regulating one's own emotional responses to manage stressful situations (Compton, 2005). These two coping approaches are described as more complementary than exclusive. However, problem-focused strategies appear to be more useful when people believe that the situation can be changed constructively by their efforts, while emotion-focused coping strategies appear to be more functional when dealing with situations that are perceived as unchangeable (Lewis and Freydenberg, 2002; Carver, Scheier and Weintraub, 1989). Infrequently used coping strategies that are considered to yield outcomes that are less effective are termed dysfunctional coping strategies (Carver et al., 1989).

The use of problem-focused coping strategies by adolescents increases their expectations of a positive outcome (hopeful), improved levels of motivation and satisfaction with relationships (Lewis and Freydenberg, 2002; Elliot and Marmarosh, 2001). Active planning and using opportunities appropriately to achieve success (restraint coping) are associated with high self-esteem (Kleinke, 1998; Folkman, Lazarus, Dunkel-Schetler, Delongis and Gruen, 1986) while it buffers against suicide ideation (George, 2005). The use of emotion-focused coping strategies (turning to religion and seeking emotional support) can assist in managing stressful experiences more successfully, thereby increasing optimism of adolescents about dealing with future challenges (Rutter and Estrada, 2006; Bryant-Davis, 2005). According to

Alpaslan (2003) and Madu and Matla (2003), turning to religion not only helps to mediate between stressful experiences but also decreases the risk to develop suicide ideation. In circumstances where the stressful situation cannot be changed, emotion-focused coping strategies like acceptance allow individuals to regulate their emotions towards growth and still achieve positive outcomes (Myers, 2007; Carver et al., 1989). In contrast, excessive venting of emotions may be associated with creating negative environments associated with increased risk of developing feelings of insecurity and low self-esteem (Barnow, Lucht and Freyberger, 2005). During the initial stages of a traumatic event, coping strategies such as denial or avoidance decrease levels of anxiety. However, they prove to be ineffective as long-term coping mechanisms (Anderson, Marwit, Van den Berg and Chinball, 2005; Garnefski, Kraaij and Spinhoven, 2001; McCrae and Costa, 1986). Using recreational substances as coping mechanisms are associated with an increased risk for suicidal acts as it generates behaviours that are more negative. Studies reviewing the effects of alcohol and other recreational substances on coping and suicidal behaviour (Sher, 2005; Mpiana, Marincowitz, Ragavan and Malete, 2004) found that abusing these substances decreases an individual's ability to generate effective coping strategies, while increasing the use of coping behaviours that are less effective, including the risk for suicidal behaviour.

Culture and racial background are among the factors that influence coping and suicidal behaviour (Gutierrez, Meuhlenkamp, Konnick and Osman, 2005). According to Schlebusch (2005), increasing identification with Western lifestyles has significantly altered the picture of suicidal behaviour among South Africans. Cultural influences indicate that most Western cultural groups appear to be more problem-focused, while collectivistic cultures seem to be more emotion-focused (Snyder and Lopez, 2007; Magaya, Asner-Self and Schreiber, 2005). In a collectivistic cultural context, certain practices such as unmarried individuals remaining emotionally dependent on their parents, placing emphasis on pursuing harmonious relations with elders and avoiding conflict situations in preference to group well-being are typical of emotion-focused approaches (Magaya et al., 2005; Du Toit, 1999). A cross-racial study by Gutierrez et al. (2005) reports a high level of suicide ideation among Caucasian people, which is similar to findings for a South African population (Burrows and Laflame, 2006; Statistical Notes, 2000). The high suicide rate among white South Africans could be attributed to socio-political changes and the accompanying experience of disillusionment at the loss of a previously privileged social position (Burrows and Laflame, 2006; Flisher, Liang, Laubscher and Lombard, 2004; Mattes, 1995).

Inter-racial investigations in the USA found Asian students were more pessimistic and used avoidance coping strategies more frequently than did white and African Americans (Sheu and Sedlacek, 2004). Black South Africans use similar avoidant coping strategies such as behavioural and mental disengagement, including the abuse of alcohol and drugs (Du Toit, 1999). Explanations for these findings may be related to collectivistic cultural influences that encourage interdependency and harmonious social relations (Sheu and Sedlacek, 2004). While investigating coping strategies among a multiracial American school population, Chapman and Mullis (2000) found that African-American adolescents more frequently used religious and other social supportive coping strategies, whereas Caucasian Americans used venting of emotions and avoidance coping strategies more frequently. According to Chapman and Mullis (2000), anxious groups were more likely to use emotion-focused strategies such as venting of emotions, which may be reflective of the socio-political challenges they had experienced. South African studies yielded mixed results, as Du Toit (1999) found that whites appeared to use reasoning, planning, turning to religion and venting of emotions more than other racial groupings did. However, Plaaitjie (2006) concluded that black participants primarily turned to religion, coloured participants to disengagement by means of alcohol and substance use and/or abuse, and white participants to acceptance. Du Toit (1999) and Plaaitjie (2006) suggest that the socio-political past of SA may have influenced coping behaviours of different racial groups due to its legacy of unequal distribution of and access to resources.

Given the strong determining influence that social factors exert over the racial spread of suicidal behaviour, and bearing in mind that coping behaviours are largely influenced by group norms (Baumeister and Bushmann, 2011; Myers, 2010), the possibility for group differences in coping becomes plausible. Few studies have, however, focused on the interactive relationship between coping, racial differences and suicide ideation in South Africa (Meehan et al., 2007). In the light of the raised levels of adolescent suicide behaviour (Reddy et al., 2010) it has become imperative that researchers explore the influence of racial differences in coping as an alternative approach in trying to improve the overall coping abilities of our youth (Hutchinson et al., 2007; Cunningham, Brandon and Freydenberg, 2002).

The aim of this article will be to investigate differences in coping as reported by adolescents from different racial groups and how these coping strategies independently contribute toward adolescent suicide ideation.

RESEARCH METHODOLOGY

Research design

To realise the objectives of this study, a non-experimental, cross-sectional group design was used.

Research question

What are the differences in coping strategies between different race groups? Does differences in racial coping strategies, contribute toward levels of adolescent suicide ideation?

Null hypothesis

There is a no significant difference of coping strategies between different race groups.

There is a no significant contribution in racially differing coping strategies and adolescents' level of suicide ideation

Alternative hypothesis

There is a significant difference of coping strategies between different race groups.

There is a significant contribution in racially differing coping strategies and adolescents' level of suicide ideation

Participants and data gathering

A purposive sampling technique was used to select a total of 590 participants (in grades 10 to 12) from ten schools that were identified as high suicide-risk institutions, in the Northern Cape Province (NCP). Criteria regarding how schools were identified, was based on the suicide-related incidences that took place at these schools within a 12 month period, prior to onset of the research. Some defining characteristics of participants were as follows: The mean age of the participants was 17.3 with a standard deviation of 1.66. Females constituted 267 of the research sample, while males constituted 323 of the participants. The following ethnic backgrounds: Coloured (280), black (172), white (133) and Asian (5) were present. Participants from a rural background constituted 20.3% while urban background tallied 79.7%.

The home language of 6.4% was English; 73% Afrikaans; 7% Xhosa; 0.7% Sesotho and 13% Sestwana.

Ethics

Approval for this study was granted by the research committee of the Faculty of Humanities, University of the Free State, South Africa. Permission from the Department of Education, Northern Cape Province (NCP), and school principals was obtained from the relevant schools. Upon the advice of the Department of Education, questionnaires were administered in English. To prevent questions from being misunderstood, learner's questions were answered by psychologists and psychometrists from the NCP Education Support Services. Testing occurred on a school day, and approved by the Department of Education (NCP). Consent was obtained from parents while participants were informed about the aims of the study as well as the voluntary nature of their participation, anonymity of information as well as the confidentiality with which information will be treated. For those participants who assented, questionnaires were administered in groups of 20 learners extending over a period of two and a half hours. A break of 20 minutes was given halfway through the administration process. In compliance with ethical standards of social research, professional staff was available to assist participants with any questions and offered referral information where needed.

Measuring instruments

Criterion variable

- The COPE Questionnaire (Carver et al., 1989) measures how often the participants used different coping strategies. Alpha coefficients between 0.45 and 0.92 were reported (Carver et al., 1989), while South African findings by Wissing (1996) reported α-coefficients between 0.39 and 0.90 for a university student population. The small number of items per subscale may have influenced the alpha coefficients negatively (Anastasi and Urbina, 1997). In our study, the different coping subscales were combined by calculating the total scores for problem-focused, emotion-focused and dysfunctional coping subscales.

Predictor variables

- The Suicidal Ideation Questionnaire for Adolescents [SIQ] (Reynolds, 1988) measures the frequency and intensity of suicidal thoughts. Alpha

coefficients ranging from 0.93 and 0.97 for an American sample were measured (Reynolds, 1988). In our study, the total suicide ideation score was used (the higher the total score, the higher the level of suicide ideation). A study by Du Plessis (2011) reported an internal consistency coefficient of 0.97 for a South African adolescent sample.

- A self-compiled biographical questionnaire was used to extract demographic information such as racial background.

Statistical procedure

Descriptive statistics and alpha coefficients were calculated for all variables. A one-way ANOVA will be used to determine whether the three race groups statistically differ with regard to their group mean scores for suicide ideation and the different coping subscales. To investigate the extent to which the variance in suicide ideation among adolescents could be attributed to predictor variables (coping strategies and race), a hierarchical regression analysis was performed for the three respective racial groups. For the purpose of this study, the 1% level of statistical significance was considered. Effect sizes for all statistically significant variables were calculated to determine the practical significance of the findings (SPSS Incorporated, 2011).

RESULTS

The participants in our study had a mean age of 17.3 with a standard deviation of 1.66. The group consisted of 267 females and 323 males, while participants' ethnic backgrounds included coloureds (280), blacks (172), whites (133) and Asians (5). Owing to the small number of Asians, only the black, coloured and white groups were analysed further.

The α-coefficients for suicide ideation and the modes of coping are of acceptable consistency, with α-coefficients ranging from 0.65 to 0.954. According to Nunnally and Bernstein (1994), coefficients above 0.70 are considered acceptable for non-cognitive constructs. It is important to note that the α-coefficients increased considerably when the different subscales were combined into one scale for each of the different coping modes. The internal consistency of the Suicidal Ideation Questionnaire is very good for all three groups of participants (0.93 and higher). The alpha coefficients for the individual coping scales are considerably lower and range from 0.25 to 0.80 with the majority hovering between 0.4 and 0.6. For the black group, five alpha coefficients, namely suppression of competing activities for the coloured group and acceptance, venting of emotions, mental disengagement

and behavioural disengagement, register below 0.4 and should be interpreted with caution. As mentioned earlier, low scores could be related to language differences between the different groups, while limited numbers of items per subscale equally contribute to smaller alpha coefficients (Anastasi and Urbina, 1997).

In Table 1 on pages 176 and 177, the mean scores for denial (coloured and black groups) are significantly higher than the mean score for whites, showing that black and coloured participants use denial as a coping strategy with greater frequency. This difference is of moderate practical significance. White participants' mean scores for behavioural disengagement are significantly lower, implying that black and coloured groups show a stronger tendency to use behavioural action to avoid stressful circumstances. The f-value for behavioural dis-engagement is of moderate practical significance.

The mean scores for dysfunctional coping indicate that black and coloured participants report significantly higher prevalence than white participants do. These results are of moderate practical significance and should be interpreted with caution.

Table 1: Means, standard deviations and *f*-values of the one-way ANOVA

	Coloured ***N* = 280**		**Black** ***N* = 172**		**White** ***N* = 133**		***F***	***P***	***f***	**Scheffé Test**
Variable	$\overline{X}$	**s**	$\overline{X}$	**s**	$\overline{X}$	**s**				
Suicide ideation	42,54	38,27	45,13	36,80	26,06	26,06	8,19*****	0,0003	0,21	1 from 2 and 3
Active coping	11,48	2,49	11,87	2,45	11,60	2,09	3,10	0,0463		
Planning	11,83	2,50	12,01	2,69	12,26	2,33	2,29	0,1024		
Suppression of competing activities	10,82	2,29	11,42	2,45	10,91	2,18	3,44	0,0332		
Restraint	11,28	2,32	11,34	2,46	10,84	2,55	2,46	0,0868		
Social support for instrumental reasons	10,99	2,82	11,38	2,77	11,02	2,89	0,61	0,5454		
Social support for emotional reasons	10,69	2,86	11,70	2,71	10,85	3,35	6,54*	0,0016	0,18	2 higher 1 and 3
Positive reinterpretation and growth	12,15	2,52	12,33	2,27	11,96	2,37	1,28	0,2784		
Acceptance	11,38	2,44	11,86	2,32	11,45	2,78	1,40	0,2484		

Turning to religion	12,76	2,65	12,42	2,58	12,78	2,92	0,34	0,7116		
Venting of emotions	10,57	2,61	10,67	2,40	10,47	2,85	0,01	0,9997		
Denial	10,09	2,57	10,36	2,63	8,74	2,83	12,32*	0,0001	0,25	2 and 3 higher 1
Behavioural disengagement	9,67	2,57	10,02	2,54	8,75	2,59	10,99*	0,0001	0,24	2 higher 3 and 1
Mental disengagement	10,83	2,57	11,01	2,53	10,90	2,62	0,51	0,5983		
Alcohol and drug disengagement	1,63	1,02	1,53	0,96	1,52	0,88	2,76	0,0646		
Problem-focused coping	56,38	9,21	57,99	9,10	56,59	9,28	2,71	0,0678		
Emotion-focused coping	57,52	8,59	59,16	7,94	57,44	9,88	1,97	0,1406		
Dysfunctional coping	32,11	5,48	32,87	5,52	29,64	6,69	11,67*	0,0001	0,25	2 and 3 higher 1

* p < = 0,01

- Effect Sizes: ± 0.1 (small); ± 0.3 (medium); ± 0.5 (large)

1: White; 2: Black; 3: Coloured

Results exploring differences in coping strategies for different racial groups and suicide ideation are presented in Table 2 on the following page. This indicates that the three racial groups show a significant difference in their group mean scores on the 1% level of significance with regard to suicidal ideation, social support for emotional reasons, denial, behavioural engagement and dysfunctional coping. The corresponding effect size of social support for emotional reasons shows a small to moderate practical significance, while a medium effect size is indicated for suicidal ideation, denial, behavioural disengagement and dysfunctional coping. Specific group differences were investigated by using the Scheffé test and are presented in Table 2. The mean scores for suicide ideation in the white group are statistically significantly lower than those for the coloured and black groups. Results show that black participants reported the highest level of suicidal ideation followed by coloured and white groups. The practical significance of this finding is of small to moderate significance.

With regard to social support for emotional reasons as a coping strategy, the mean score of the black group is statistically significantly higher than the scores of the other two groups. This indicates that black participants are more likely to seek emotional support from others than coloured or white participants are. These recorded differences are of small practical significance.

Table 2: Contribution of different coping variables to the variance in suicidal ideation (R^2) for coloured participants

Variable for analysis	R^2	Contribution to R^2:	*F*	f^2
1. [pfc]+[efc]+[dfc]	0,1701	1–6=0,0233	**1,62**	
2. [pfc]+[efc]+denial	0,1617	2–6=0,0149	**4,14***	0,02
3. [pfc]+[efc]+behavioural disengagement	0,1492	3-6=0,0024	0,67	
4. [pfc]+[efc]+mental disengagement	0,1494	4-6=0,0026	0,72	
5. [pfc]+[efc]+alcohol	0,1484	5-6=0,0016	0,44	
6. [pfc]+[efc]	0,1468			
7. [pfc]+[dfc]+[efc]	0,1701	7-13=0,1071	5,95**	0,13
8. [pfc]+[dfc]+emotional support	0,0756	8-13=0,0126	3,50	
9. [pfc]+[dfc]+positive reinterpretation	0,0851	9-13=0,0221	6,14*	0,02
10. [pfc]+[dfc]+acceptance	0,0771	10-13=0,0141	3,62	
11. [pfc]+[dfc]+religion	0,0681	11-13=0,0051	1,31	
12. [pfc]+[dfc]+venting emotions	0,1307	12-13=0,0677	18,81**	0,08
13. [pfc]+[dfc]	0,0630			
14. [efc]+[dfc]+[pfc]	0,1701	14-20=0,0411	2,28*	0,04
15. [efc]+[dfc]+active coping	0,1470	15-20=0,0180	5,00*	0,02
16. [efc]+[dfc]+planning	0,1464	16-20=0,0174	4,83*	0,02
17. [efc]+[dfc]+suppression of competing activities	0,1314	17-20=0,0024	0,67	
18. [efc]+[dfc]+restraint	0,1344	18-20=0,0054	1,50	
19. [efc]+[dfc]+instrumental support	0,1350	19-20=0,0060	1,67	
20. [efc]+[dfc]	0,1290			

Key: [pfc=problem-focused coping; efc=emotional-focused coping; dfc=dysfunctional-focused coping]

** $p \leq 0,01$; * $p \leq 0,05$

Table 3: Contribution of different coping variables to the variance in suicide ideation (R^2) of black participants

Variables to be analysed	R^2	Contribution to R	*F*	f^2
1. [pfc]+[efc]+[dfc]	0,1732	1–6=0,0859	3,90**	0,10
2. [pfc]+[efc]+denial	0,1583	2–6=0,0710	12,91**	0,08
3. [pfc]+[efc]+behavioural disengagement	0,1064	3-6=0,0191	3,47	
4. [pfc]+[efc]+mental disengagement	0,0897	4-6=0,0024	0,44	
5. [pfc]+[efc]+alcohol	0,0874	5-6=0,0001	0,02	
6. [pfc]+[efc]	0,0873			
7. [pfc]+[dfc]+[efc]	0,1732	7-13=0,0549	2,00	
8. [pfc]+[dfc]+emotional support	0,1225	8-13=0,0042	0,76	
9. [pfc]+[dfc]+positive reinterpretation	0,1185	9-13=0,0002	0,04	
10. [pfc]+[dfc]+acceptance	0,1189	10-13=0,0006	0,11	
11. [pfc]+[dfc]+religion	0,1565	11-13=0,0382	6,95**	0,05
12. [pfc]+[dfc]+venting of emotions	0,1417	12-13=0,0234	4,25*	0,03
13. [pfc]+[dfc]	0,1183			
14. [efc]+[dfc]+[pfc]	0,1732	14-20=0,0812	2,95*	0,10
15. [efc]+[dfc]+active coping	0,0958	15-20=0,0038	0,69	
16. [efc]+[dfc]+planning	0,0931	16-20=0,0011	0,20	
17. [efc]+[dfc]+suppression of competing activities	0,0922	17-20=0,0002	0,04	
18. [efc]+[dfc]+restraint	0,1440	18-20=0,0520	9,45**	0,06
19. [efc]+[dfc]+instrumental support	0,1037	19-20=0,0117	2,13	
20. [efc]+[dfc]	0,0920			

Key: [pfc=problem-focused coping; efc=emotional-focused coping; dfc=dysfunctional-focused coping]
** $p \leq 0,01$; * $p \leq 0,05$

Results of the hierarchical regression analysis

This analysis investigated the contribution of coping subscales to the variance in suicidal ideation for different racial groups. The 14 coping subscales (Table 3) explain 17.01% ($R^2 = 0.1701$) of the variance in suicide ideation for coloured adolescents. This calculated R^2-value is significant on the 1% level of significance [F14; 188 = 2.75; p = 0.001]. The subscales for emotion-focused coping contribute significantly on the 1% level to the variance in suicide ideation for coloured participants, contributing 10.71% towards the total variance in suicide ideation [F5;187 = 5.95; p = 0.01].

As a coping strategy, venting of emotions positively contributes 6.77% [F1; 190 = 18.81; p = 0.01] to the variance in suicidal ideation for coloured participants (1% level of significance). All statistically significant relationships have a small effect size and are of small practical significance.

As can be inferred from Table 3 on the previous page, the 14 coping subscales for black participants together explain 17.32% ($R^2 = 0.1732$) of the variance in suicide ideation of black adolescents. The contribution of dysfunctional coping is significant on the 1% level of significance in explaining the variance of suicide ideation for black participants (small effect size). Individual coping subscales such as denial and turning to religion show a significantly positive contribution, namely 7.10% (F1;81 = 12.91; p = 0.01), 3.82% (F1;81 = 6.95; p= 0.01) while restraint coping correlates negatively in its contribution to the variance of suicide ideation on the 1% level of significance, 5,20% (F1;81 = 9.45; p = 0.01) (small effect size).

Table 4, on the following page, shows that all 14 coping subscales contribute 22.44% ($R^2 = 0.2244$) to the variance in suicidal ideation of white participants. The subscale of emotion-focused coping explains 12% of the variance for suicide ideation and is significant on the 1% level of significance. The subscale acceptance is associated negatively and contributes 8.52% (F1; 81 = 12,72; p 0,01) to the variance of suicide ideation for whites. The result is significant on the 1% level of significance with a small effect size.

Table 4: Contribution of different coping variables to the variance in suicide ideation (R^2) of white participants

Analysis of Variables	R^2	Contribution to R^2:	*F*	f^2
1. [pfc]+[efc]+[dfc]	0,2244	1–6=0,0374	1,40	
2. [pfc]+[efc]+denial	0,1997	2–6=0,0127	1,89	
3. [pfc]+[efc]+behavioural Disengagement	0,1878	3-6=0,0008	0,12	
4. [pfc]+[efc]+mental Disengagement	0,2236	4-6=0,0366	5,46*	0,05
5. [pfc]+[efc]+alcohol	0,1885	5-6=0,0015	0,22	
6. [pfc]+[efc]	0,1870			
7. [pfc]+[dfc]+[efc]	0,2244	7-13=0,1200	3,58**	0,16
8. [pfc]+[dfc]+emotional Support		8-13=0,0052	0,78	
9. [pfc]+[dfc]+positive Reinterpretation	0,1044	9-13=0,0000	0,00	
10. [pfc]+[dfc]+acceptance	0,1896	10-13=0,0852	12,72**	0,11
11. [pfc]+[dfc]+religion	0,1117	11-13=0,0073	1,09	
12. [pfc]+[dfc]+venting Emotions	0,1085	12-13=0,0041	0,61	
13. [pfc]+[dfc]	0,1044			
14. [efc]+[dfc]+[pfc]	0,2244	14-20=0,0068	0,20	
15. [efc]+[dfc]+active Coping	0,2183	15-20=0,0007	0,10	
16. [efc]+[dfc]+planning	0,2239	16-20=0,0063	0,94	
17. [efc]+[dfc]+suppression of competing activities	0,2241	17-20=0,0065	0,97	
18. [efc]+[dfc]+restraint	0,2193	18-20=0,0017	0,25	
19. [efc]+[dfc]+instrumental Support	0,2214	19-20=0,0038	0,57	
20. [efc]+[dfc]	0,2176			

Key: [pfc=problem-focused coping; efc=emotional-focused coping; dfc=dysfunctional-focused coping]
** $p \leq 0,01$; * $p \leq 0,05$

DISCUSSION

The mean scores for suicide ideation indicate the incidence of suicide ideation as being highest for the black participants, followed by the coloured and white groups. Past political inequalities and resultant higher levels of stress in South Africa could explain the higher levels of suicide ideation among black and coloured participants. Earlier studies indicate that elevated suicide ideation could be explained by rapid socio-political changes and an inability to cope with these changing demands (Hutchinson et al., 2007; Meehan et al., 2007). Notwithstanding significant social changes since 1994, the socio-political past may still influence the choice of coping strategies by different groups (Plaaitjie, 2006; Goldston et al., 2001; Chapman and Mullis, 2000). Hobfoll (1998) concludes that decreased access to resources contributes to raise stress levels.

In understanding the use of coping strategies between different racial groups, it appears that black participants, followed by coloured participants, show greater frequency in their use of seeking social support and dysfunctional coping strategies such as denial and behavioural disengagement. Although seeking social support could be viewed as part of a process towards maintaining harmonious relationships from the perspective of collective cultures (Magaya et al., 2005), an argument could also be made in the opposite direction. Based on the finding of Chapman and Mullis (2000), disadvantaged groups show increased social outreach when under stress or when anxious in their socio-political contexts. When a situation, however, is appraised as unchangeable, or when inadequate resources are available, avoidance behaviour patterns such as denial and behavioural disengagement (e.g. alcohol and drug abuse) become plausible choices (Carver et al., 1989). Chapman and Mullis (2000) view denial as a symptom of people's feelings of helplessness due to a lack of goal attainment. This experience of being socially stifled may rekindle earlier ways of coping such as behavioural disengaging acts that could adversely influence participants' sense of well-being and expectations about their futures (Sher, 2005; Du Toit, 1999).

Investigating if the modes of coping differed between races yielded no significant difference in their use of problem- and emotion-focused coping. These findings are inconsistent with those of Magaya et al. (2005), who conclude that cultural influences contribute to shaping an emotion-focused coping approach in collectivistic cultures, whereas Western cultures (Snyder and Lopez, 2007) tend to adopt a problem-focused approach. Alternatively, Schlebusch (2005) alludes to the possibility that South Africans may have been affected by the process of acculturation and may show a greater

identification with a more Western lifestyle. This places South Africans in a unique situation as the culture of the majority of the population is predominantly collectivistic; yet, mass-scale urbanisation, erosion of traditional value systems, increasing identification with individualistic lifestyles and globalisation of economies may have perpetuated a more Westernised coping lifestyle.

The hierarchical regression analysis shows that the coping subscales contribute in varying degrees to the variance in suicide ideation (W - 22.44%; B - 17.32%; C - 17.01%). Among coloured participants, venting of emotions as a coping strategy contributes 6.77% (significant on the 1% level) towards the explanation of suicide ideation. Venting of emotions is associated with creating an environment surrounded with insecurity, low self-image, low self-esteem and increases an individual's risk for suicide (Barnow et al., 2005). The continued use of emotion-focused strategies such as the venting of emotions is associated with ineffective coping and, and consequently viewed as a risk for suicide (Lewis and Freydenberg, 2002).

Pertaining to black participants, denial, turning to religion and restraint as coping strategies contributes 7.10% to the variance of suicide ideation (1% level). Turning to religion shows a positive correlation with suicide ideation, but this finding does not concur with conventional literature (Rutter and Estrada, 2006; Madu and Matla, 2003), making it difficult to explain. Anderson et al. (2005) and McCrae and Costa (1986) are of the opinion that a prolonged use of denial may be associated with less effective coping strategies and may aggravate stressful circumstances that could increase the risk of suicide (Meehan et al., 2007). Restraint coping, significantly correlates (negatively) with suicide ideation, implying appropriate and selective use of opportunities to maximise goal achievement promotes psychological well-being while buffering individuals against suicide ideation (Kleinke, 1998; Folkman et al., 1986).

The results for white participants reflect the variable of acceptance as negatively correlated (at the 1% level) with suicide ideation. As an emotion-focused strategy, acceptance is viewed as a useful alternative coping approach in which situations perceived as unchangeable become much more bearable if this coping strategy is utilised (Myers, 2007; Carver et al., 1989).

When comparing the influence of the modes of coping on suicide ideation for different race groups, emotion-focused coping (coloured and white) and dysfunctional coping (blacks) significantly correlate with suicide ideation. The use of excessive amounts of emotion-focused coping in the absence of

problem-focused coping strategies can lead to inappropriate coping, resulting in high levels of anxiety and depression that invariably stifles psychological well-being (Lewis and Freydenberg, 2002; Garnefski et al., 2001). Dysfunctional coping strategies are considered less effective coping mechanisms (Carver et al., 1989) that limit the individual's ability to obtain needed resources, thereby aggravating the experience of the stressful circumstances (Israelashvili et al., 2006). Continued failure to cope effectively can lead to depression and suicide-related behaviour (Meehan et al., 2007).

CONCLUSION

This article explored the differences in coping strategies between various race groups and how these differences contributed toward adolescent suicide ideation.

The findings offer some indication that black and coloured participants utilise coping strategies that are more dysfunctional as a means of interacting with their environment. Greater use of emotion-focused and dysfunctional coping strategies places these groups at a higher risk for suicide ideation. Based on these findings, a need arises that researchers, schools educators, therapists, counsellors, lay-counsellors and other health-support personnel should place a greater emphasis on strengthening problem-focused coping strategies amongst adolescents, especially the black and coloured participants. This need should translate into the development of school-based workshops and seminars to equip adolescents with skills such as problem-solving, positive reinterpretations and positive visualisation would contribute to empowering teenagers when they are confronted with difficult challenges. Raising awareness about risk factors concerning suicide should be encapsulated within a suicide prevention programme, which could be incorporated into life-orientation subjects in order to not only raise awareness, but simultaneously make these socially taboo issues a topic of discussion within the correct milieu to ensure timeous identification of individuals who may be at risk for suicidal behaviour.

This research adds to a limited body of literature regarding the interaction between coping strategies for different adolescent race groups and how these coping strategies are related to suicide ideation. Human behaviour is, however, sometimes better understood when observed in the form of longitudinal studies, since these allow researchers to observe the impact of developmental changes on variables of choice. It is recommended that studies on the interaction between suicide ideation and coping strategies among

participants from different racial backgrounds be undertaken in a manner whereby participants can be observed over a number of years. Additional variables that should be considered as part of longitudinal studies are the nature and extent of the stressor and how participants utilise resources and how these influence coping behaviour and suicidal ideation. Coping explains a small albeit significant percentage of the variance in suicide ideation. Exploring factors such as poverty, culture and other dispositional factors may offer further useful understanding regarding the relationship between suicide ideation and coping. Another consideration could be the exploration of gender, race, and socio-economic status on coping and suicidal ideation.

It is important, however, to interpret the findings in light of the following limitations:

- The sample age-span excluded learners from early adolescence (grade 8-9), thus testing only part of the adolescent development phase. Testing a narrower sample inadvertently deprived the research findings from yielding a more holistic perspective of behaviour (coping, suicide ideation and race differences) amongst adolescents.
- Focusing on learners in general (rather than those who had attempted suicide) may have robbed this study of valuable information regarding the dynamics of suicidal ideation. It is also possible that the variables measured by this study may yield different results when applied to persons who have attempted suicide.
- The use of English questionnaires without providing an alternative language questionnaire (in Afrikaans or Sesotho) may have influenced the participants' responses even though qualified staff was in attendance to clarify any conceptual or language difficulties.

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