DRUG INVOLVEMENT AMONG SECONDARY SCHOOL STUDENTS AT SUICIDE RISK IN CAPE TOWN

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Abstract: The aim of this study is to investigate drug involvement (conceptualized as drug use frequency, drug access, drug use control, and adverse use consequences) in a sample of 1157 secondary school students at low and at high risk of suicide who completed a self-administered questionnaire in three schools in Cape Town, South Africa. Drug use frequency, access, control and consequences were compared among 366 students who scored at high risk of suicide on the Suicide Risk Screen (SRS) and 791 who score in the low risk range. Students at high rather than low risk of suicide endorsed a much greater breadth and depth of drug use, less drug use control, and greater adverse consequences due to drug use. Findings have implications for prevention programs, especially for students at risk of suicide.

Key words: drug involvement, secondary school students, suicide risk, Cape Town, South Africa

INTRODUCTION

Substance abuse among youth in South Africa appears to be an increasing area of concern. The 2003 South African Youth Risk and Behavior Survey (YRBS) - the majority of the sample (78.7%) were between the ages of 14 and 18 years inclusive, with 8.4% aged below this range, and 12.9% above - (Reddy et al., 2003) found that alcohol consumption ranged from 49% for ever having used it, 32% for drinking in the past month, and 23% had engaged in binge drinking in the past month. Binge drinking among young current drinkers (15-24 years) increased slightly from 29%

in 1998 (DHS) to 31% in 2005 (SABSSM II) (Peltzer, Ramlagan, Mohlala, Matseke, 2007). Among adolescent girls lifetime cannabis use has been similar in Cape Town and nationally from 1993 to 2002 (7%) while there has been an increase among boys from 13% to 20%. In the 2002 YRBS it was found that 4% had begun to use cannabis before the age of 13 years. In two national samples current use of cannabis among adolescents ranged from 9% in 2002 (YRBS) to 2% in 2005 (SABSSM II), and the Cape Town samples were between 6-7% current cannabis use. Based on three national surveys among adolescents other lifetime illicit drug use was highest in over-the-counter or prescription drugs (16%), followed by inhalants (between 0.2 to 11.1%), club drugs (ecstasy, LSD, etc.) (0.2-7.6%), cocaine (crack) (0.1-6.4%), mandrax (methaqualone-quaaludes in USA)/sedatives (0.1-6.4%) and opiates 11.5% (the latter figure from the 2002 YRBS seem unreasonably high). There were gender differences: more male

than female adolescents took inhalants, mandrax/sedatives, club drugs (ecstasy, LSD, etc.) and cocaine (crack) (Peltzer et al., 2007). Mandrax is widely available and often smoked with cannabis products called "white pipe" in South Africa (Peltzer et al., 2007).

Another reason for concern about the extent of alcohol and other drug use among adolescents is that it is one of the two dominant preventable health problems of adolescents, the other being injuries and violence. Heavy drinking among youth is linked with unintentional injuries, death, suicide, fights, academic problems, troubles at work, and troubles with the law (Eggert, Herting, 1993). There is extensive literature in Western countries about a strong association between substance use and suicidal ideation and attempts from cross-sectional surveys (e.g., Gould et al., 1998; Hallfors et al., 2004; Stronski, Ireland, Michaud, Narring, Resnick, 2000; Swahn, Bossarte, 2007; Wu et al., 2004) as well as autopsy studies (e.g., Brent, Baugher, Bridge, Chen, Chiappetta, 1999; Shaffer et al., 1996). There is a lack of data on the extent of alcohol and other drug use/abuse among teenagers in high-risk groups such as suicide risk in South Africa (e.g., Flisher et al., 2006; Wild, Flisher, Lombard, 2004).

Currently, scholars call for research that includes analyzing differences in the drug use/abuse prevalence among sub-populations of adolescents, particularly those at high-risk of suicide. Identified research needs among such populations include: 1) determining consequences of drug use/abuse behavior, 2) discovering methods of identifying high-risk individuals, and 3) isolating factors related to their drug use (Eggert, Herting, 1993).

The aim of this study is, therefore, to describe and compare drug involvement among a group of secondary school students at low and at high risk of suicide.

METHOD

Sample and Procedure

All students in Grades 9 to 11 of three high schools in the greater Cape Town area were eligible. Schools were intentionally selected in consultation with the Western Cape Education Department from two circuits within an education district; a circuit may have 15-20 high schools. Students attend schools in their neighborhoods. The selected schools were located in areas with low socio-economic status, high poverty and unemployment rates, limited community support and school-based resources, with students from all racial backgrounds. Schools from the same district were selected in order to facilitate the establishment of a suicide prevention support network, which was the goal of intervention of the broader study. The sample consisted of 1,157 students (Grade 9, 28.2%; Grade 10, 43.3%; Grade 11, 28.4%); 30.9 percent were boys and 69.1% were girls (M_{age} = 15.8 yr., SD = 1.6). The racial background was mainly Colored, i.e., of mixed descent (84.6%), with fewer African Blacks (10.5%), White (2.1%), and Indian/Asian (1.8%); 0.7% did not provide data on race.

The study was approved by the ethics committee of the Human Sciences Research Council. Permission to conduct the study was obtained from the Provincial Education Department. Upon receipt of permission, negotiations with Education Support Services at regional and district levels were begun. Permission was also obtained from school principals to ensure buy-in to the study. Information letters about the study were distributed in all

classes in the chosen grades. Students who were interested in participating in the study were requested to obtain written consent from their parents/guardians. On the day of screening, participating students were asked to give their own written consent or assent as well. Of the total number of 1286 eligible students 90% (1157) participated in the study. Questionnaire administration was done in English, which for most students was not their first language.

Screening for Suicide Risk

With the consent of their parents or guardian, those who agreed to participate completed a suicide risk assessment questionnaire. On the basis of the screening results, High Suicide Risk students in each school were identified with the Suicide Risk Screen (SRS) and assigned to gatekeepers who conducted an in-depth assessment of suicide risk and related behaviors and were to make appropriate referrals. High Suicide Risk students were referred for further assistance to mental health practitioners within the district. Students not deemed at risk of suicide exited the study at this point.

Measures

High School Questionnaire (HSQ) (Eggert, Herting, Thompson, 1995).

The HSQ includes items assessing school deviance and school emotional issues such as self-esteem, stress, anxiety, hopelessness, and personal control; high-risk behavior; substance use; suicide; and demographic variables such as age, gender, grade, race, and family structure. It is a broad measure that taps key psychosocial risk and protective factors such as depression, suicidal behavior, drug involvement, family factors, personal strength, and so-

cial support including daily activities. A description of the five scales used in this study is given below. Items were rated on a 7-point scale with 0 = never and 6 = always/many times. The higher the rating, the greater the level of the measured constructs. Measures of four suicide risk dimensions were used: psychosocial distress, drug involvement, family strain, and school performance problems. Prior to administration, the questionnaire was reviewed with educators who had completed gatekeeper training, and minor changes were made to the language used to make sure terminology reflected local idiom and culture. For example, in the section on drugs, "marijuana" was changed to "dagga", and other local drugs such as "white pipes" (a marijuana combination), were included. The HSQ multi-item scales have demonstrated acceptable reliability and validity in previous studies (Eggert, Thompson, Herting, Nicholas, Dicker, 1994; Eggert, Herting, Thompson, 1998; Hallfors et al., 2006).

The *Suicide Risk Screen (SRS)* (Thompson, Moody, Eggert, 1994).

This scale is embedded in the HSQ and focuses on criteria based on confirmed suicide risk factors. Here only the first criteria set was used, i.e., the 'very high' and 'high' suicide risk criteria of Hallfors et al. (2006), which include any one of the following (Mazza, Eggert, 2001): one or more prior suicide attempts in the past year, high suicidal ideation (almost always or always), or severe depression (1 SD > mean). Correlations between reported frequencies of suicide attempt and suicide ideation were $r = .51$, and between suicide attempt and severe depression $r = .41$. The SRS is unique in assessing the full range of factors found to predict suicide in psychological autopsy studies (Shaffer et al., 2004). The correlation between Suicide

Risk Screen scores and subsequent clinician ratings of suicidal thoughts and intent has been reported at .55, establishing concurrent validity (Thompson, Eggert, 1999).

Thompson and Eggert (1999) examined the validity of the Suicide Risk Screen (SRS) for identifying suicide-risk youths and found that suicide-risk severity was significantly associated with categorization defined by the SRS criteria. SRS sensitivity ranged from 87% to 100%, specificity from 54% to 60%. Of 7 SRS elements, depression, suicidal ideation, and suicide threats predicted all validity measures. The SRS is an effective and pragmatic method of identifying suicide-risk youths in school settings (Thompson, Eggert, 1999) and has been successfully used in diverse cultures (Hallfors et al., 2006).

Drug Involvement was measured with the Drug Involvement Scale for Adolescents (DISA) (Eggert, Herting, Thompson, 1996). This concept included measures of five dimensions: a) drug access, b) alcohol use, c) other drug use, d) drug use control problems, and e) adverse drug use consequences.

Drug access. This dimension is operationalized by asking students to endorse how difficult it would be for them, if they wanted, to get each of the five drug types (beer or wine and hard liquor; cannabis and cannabis/mandrax; cocaine, depressants and stimulants). Response options were from 1 = probably impossible to 6 = very easy. Higher scores imply easier access.

Alcohol use. The frequency of alcohol use in the past month was tapped by two items and summed to produce scale scores for frequency of use of 1) beer or wine, and 2) hard liquor (range: 0-12). Response options were from 0 = not at all to 6 = every day. The higher the scores, the greater the frequencies of alcohol use.

Cannabis and cannabis/mandrax use in the past month was asked by two items summed to produce scale scores for frequency of use (range: 0-12). Response options were from 0 = not at all to 6 = every day.

Other drug use. The frequency of drug use was tapped for three indicators: 1) cannabis, 2) the sum of all hard drug use (cocaine, opiates, depressants, tranquilizers, hallucinogens, inhalants, and stimulants), and 3) the level of poly drug use, "used more than one drug at the same time" in the past month. Response options were from 0 = not at all to 6 = every day. Higher scores indicated greater frequency of other drug use in the past 30 days.

Drug use control problems. This dimension was operationalized by five items on level of problems with drug use control (over 30 days), (e.g., usually didn't stop with 1 or 2 drinks, used more alcohol/drugs than intended), tapped along a 7-point continuum from 0 = not at all to 6 = every day (see Table 3). Cronbach's alpha for the drug use control problems index in this sample was .76.

Adverse drug use consequences. The three facets of this dimension were tapped by the eight items shown in Table 4. Two items measured interpersonal consequences (problems with friends and conflicts with family) during the past month; four items assessed intrapersonal consequences (lied to my family or friends, felt sick from drinking too much, depression, and guilt after having used drugs, alcohol, or both) over the past month; and social-school consequences were tapped by two indicators assessed during the past month (missed an assignment or failed a test, got into disciplinary trouble). These items all began with a conditional statement, "Because of my drug or alcohol use ..." Response options were from 0 = not at all to

6 = six or more times in the past month. Cronbach's alpha for the adverse drug use consequences index in this sample was .80.

Data Analysis

Using SPSS (version 14.0) descriptive statistics were calculated and associations between categorical variables were tested using chi-square analysis. Logistic regression analysis was used to identify associations between demographic variables (age, sex), drug use/abuse variables and suicide risk. We report unadjusted Odds Ratios for male and female students separately for the drug use/abuse predictor variables while considering suicide risk as a dependent variable. We thereafter report results of adjusted odds ratios for the factors, having checked for factors identified as significant in the bivariate analysis. The level of significance was set at $p \leq .05$ (95% confidence intervals).

RESULTS

Using the SRS, students were divided into two groups: 1) those who were at possible risk of suicide, High Suicide Risk students (n = 366, 31.6%) and 2) those not at risk of suicide, Low Suicide Risk students (n = 791, 68.4%). There were significantly more girls (127, 34.7%) than boys (84, 23.4%) at High Suicide Risk ($\chi^2 = 9.16$, p = .002). The mean ages of High and Low Suicide Risk students were not different (15.9 vs. 15.7 yr., t = -1.04, ns). Girls had significantly greater suicide ideation than did boys ($\chi^2 = 18.08$, p < .001). Regarding those with one or more suicide attempts (24% had attempted in the past year) there were no significant sex differences ($\chi^2 = .17$, ns), while severe depression was more frequent in girls than in boys ($\chi^2 = 6.38$, p = .012).

Taking the whole sample, high rates of past month drug use were found for tobacco (28.0%), alcohol (57.8%), cannabis (19.3%), cannabis and mandrax (4.3%), cocaine (4.3%) and opiates (2.4%); 16.5% reported daily or almost daily tobacco smoking, 4.8% beer or wine use and 2.7% cannabis use. Sex differences were found for only four drugs, i.e. more male than female students used cannabis, cannabis and mandrax, cocaine and opiates (see Table 1).

Table 2 shows that for tobacco use, cannabis, cannabis and mandrax, cocaine hallucinogens, opiates, inhalants, tranquilizers and over-the-counter drug use but not for alcohol, stimulant and depressant use, the high-risk group endorsed significantly higher levels of use than the low-risk group (see Table 2).

Drug access

Access as a facet of drug involvement was not a distinguishing characteristic for all drugs among high-risk and low-risk youth. Overall, 67.1% to 73.3% saw access to alcohol and 46.6% access to cannabis as "fairly easy" or "easy". On the other hand, access to other drugs such as cannabis/mandrax and cocaine was only seen by 30.3% and 15.6% respectively as "fairly easy" or "easy".

Table 3 shows that in all aspects of drug control, high-risk youth demonstrated significantly lower levels of control (i.e., less containment of use). First, regarding problems of controlling conditions of use, high-risk youth endorsed significantly higher levels than did low-risk youth: 1) Not stopping at one or two drinks, 2) Engaging in poly-drug use, 3) Feeling more pressure to use, 4) Using more than intended, and 5) Using to solve problems.

Table 1. Past month frequency of drug use in percent (n = 1157)

Past month use frequency	Past month	Past month		χ^2	Past week	Daily & almost daily
		Male	Female			
	N (%)	%	%		%	%
Smoking tobacco	310 (28.0)	25.7	27.7	.39	19.4	16.5
Alcohol	636 (57.8)	55.9	57.8	.28		
Beer or wine	614 (55.5)	53.4	55.3	.27	23.1	4.8
Hard liquor (whiskey, gin, vodka, mixed drinks)	480 (43.4)	45.4	42.4	.69	17.9	3.0
Cannabis (dagga, weed, pot, grass)	214 (19.3)	22.2	16.0	5.02*	7.0	2.7
Cannabis & mandrax (smoked together, called white pipe)	47 (4.3)	7.2	2.6	10.39***	1.9	0.8
Enhancers						
Cocaine (coke, crack)	47 (4.3)	7.2	2.6	10.39***	1.1	0.6
Opiates (heroin, morphine, codeine)	26 (2.4)	3.9	1.3	6.3*	1.3	0.3
Hallucinogens (angel dust, LSD, PCP, magic mush-rooms)	59 (5.4)	2.9	5.2	2.51	1.3	0.6
Inhaled substances (glue, gasoline, paint thinner, spray cans, white-out)	37 (3.2)	3.6	2.4	.93	1.3	0.7
Stimulants (amphetamines, crystal, speed, Tik or meth-amphetamine, etc.)	37 (3.2)	3.2	2.8	.14	3.9	1.7
Dampeners						
Depressants (downers, reds, barbs, etc.)	23 (2.1)	2.1	1.1	1.36	2.5	0.4
Tranquilizers (Valium, Li-brium)	33 (3.0)	2.5	2.9	.13	1.7	0.7
Over-the-counter drugs (diet pills, NoDoz, Nyquil, etc.) but *not* for their intended use	92 (8.4)	10.4	6.7	3.64	1.6	0.8

*** p < .001, ** p < .01, * p < .05

Table 2. Past month frequency of drug use by low and high risk of suicide groups

Substance type	Past month substance use		High (n = 366) vs. Low risk (n = 701)	
	High risk group	Low risk group (%)	OR adjusted for age and sex[1]	95% CI
Tobacco	34.2	21.4	2.03***	(1.29-2.19)
Alcohol	66.3	53.5		
Beer or wine	61.7	52.2	1.23	(0.85-1.84)
Hard liquor	52.0	38.7	1.36	(0.92-2.09)
Cannabis	26.0	14.0	2.63***	(1.54-4.49)
Cannabis & mandrax	8.2	1.8	8.35***	(2.58-26.99)
Enhancers				
Cocaine	4.7	0.9	8.35***	(2.58-26.99)
Opiates	4.7	0.2	5.28*	(1.20-23.25)
Hallucinogens	5.9	1.3	4.76**	(1.61-14.12)
Inhaled substances	5.9	1.3	5.41*	(1.30-22.48)
Stimulants	10.2	2.9	0.67	(0.07-6.17)
Dampeners				
Depressants	5.1	2.0	00	00
Tranquilizers	2.7	1.8	6.32**	(1.62-24.68)
Over-the-counter drugs	12.2	6.1	2.20*	(1.07-4.51)

[1] Based on a frequency rating of substance use from never = 0 to 6 = every day
*** p < .001, ** p < .01, * p < .05

Table 3. Problems with drug use control by low versus high risk of suicide groups

	Total	High (n = 366) vs. Low risk (n = 701)	
	At least once in past month	OR adjusted for age and sex	95% CI
Part A: Level of problems with control (0-6)			
Did not stop at one or two drinks	36.9	1.17*	(1.00-1.35)
Used more than one drug at same time	19.4	1.29***	(1.10-1.51)
Felt pressured by friends to use	16.4	1.28*	(1.02-1.61)
Used more than intended	21.9	1.26***	(1.10-1.45)
Kept drinking/using even though had plenty already	27.3	1.23**	(1.07-1.40)

*** p < .001, ** p < .01, * p < .05

Table 4 shows that all but one adverse drug use consequences were significantly greater for the high-risk group. "Lied to my family or friends because of drug use" was the most frequent adverse consequence for both groups, followed by "missed an assignment or failed a test" and "felt guilty about amount". The greatest differences between the two groups occurred in "felt sick from drinking too much", "got into trouble at school" and "missed an assignment or failed a test" (see Table 4).

Unadjusted odds ratios for both male and female students found associations between drug abuse variables (cannabis and cannabis/mandrax) and alcohol use as well as drug control problems and adverse drug consequences. Odds ratios adjusted by sex, age and drug abuse variables identified only adverse drug consequences and cannabis and cannabis/mandrax as predictors for high suicide risk (see Table 5).

DISCUSSION

In this sample of secondary school students in Cape Town, the study, using only the more stringent set one criteria of the SRS, found a high number of High Suicide Risk students (31.6%). This was higher than the number found in a study among adolescents in the US (29%), even though both sets one and two criteria of the SRS were used in the latter study to screen adolescents at high risk of suicide (Hallfors et al., 2006). Comparing the finding of this sample that 24% had made one or more suicide attempts in the past year, Reddy et al. (2003) found among school-going youth in 2002 in the Western Cape similar rates with 17.2% (slightly higher among Colored youth, 18.5%) having attempted one or more suicides in the past six months, while Flisher et al. (2006) found lower rates of having attempted suicide in the past year among high-school students in Cape Town (13.2%).

Table 4. Adverse drug use consequences by low versus high risk of suicide groups

Due to using alcohol and/or drugs in the last month...	Total	High (n = 366) vs. Low risk (n = 701)	
	At least once in past month	OR adjusted for age and sex	95% CI
Felt sick from drinking too much	20.4	1.54***	(1.24-1.92)
Felt depressed after using	23.9	1.22*	(1.05-1.42)
Felt guilty about amount	34.0	1.08	(0.97-1.22)
Problems between me and my friends	15.2	1.33***	(1.12-1.57)
Conflicts between me and my family	15.6	1.20*	(1.03-1.39)
Missed an assignment or failed a test	36.4	1.42***	(1.18-1.70)
Got into trouble at school	23.3	1.52***	(1.26-1.83)
Lied to my family or friends	43.4	1.26***	(1.13-1.40)

*** p < .001, ** p < .01, * p < .05

Table 5. Unadjusted and adjusted Odds Ratios for suicide risk and drug use variables

	Male		Female		Method: forward stepwise (Wald)	
	Unadjusted OR	95% CI	Unadjusted OR	95% CI	Adjusted by sex, age and drug variables	95% CI
Tobacco (smoking)	2.31	.96-5.61	1.92*	1.13-3.25	Ns	
Alcohol use	1.16**	1.05-1.27	1.07*	1.00-1.14	Ns	
Cannabis & cannabis/mandrax	2.34***	.40-3.90	1.94**	1.27-2.96	1.76*	1.06-2.93
Other drugs	1.07	.99-1.14	1.26**	1.13-1.41	Ns	
Drug control problem	1.13***	1.07-1.19	1.11**	1.06-1.16	Ns	
Adverse drug consequences	2.34***	1.40-3.90	1.08**	1.05-1.12	1.07***	1.03-1.12
Nagelkerke R^2					.13	

This sample of 1157 secondary school students seems to have had slightly higher rates of alcohol (57.8% vs. 32% for drinking alcohol in the past month) and cannabis use (19.3% vs. 2%-9% in national and local surveys for cannabis use in the past month) compared with national and local surveys in South Africa (Peltzer et al., 2007; Reddy et al., 2003). One should note that it is difficult to compare the different samples, since some come from household surveys and others from school-based surveys, and the age groups were not always comparable. Slight differences found can also most likely be explained in terms of racial differences across surveys (generally higher drug use prevalence rates are found among the Colored race group as compared to other racial groups in South Africa; this sample had 85% of participants from the Colored race group) and perhaps having participants coming from more socio-economically disadvantaged backgrounds. Particularly important, however, is that tobacco, drug use (cannabis, cannabis/mandrax, cocaine, hallucinogens and tranquilizers) among youth at high risk of suicide was much higher than those with low risk of suicide and the national or local norms in South Africa.

In this study we compared seven facets of drug involvement among secondary school students (drug access, tobacco smoking, alcohol use, cannabis and cannabis/mandrax use, other drug use, drug control problem and adverse drug consequences). Overall, male and female students at high risk of suicide were significantly different from the low risk of suicide students in five (except for alcohol use and smoking) of the seven components of drug involvement measured here. Unadjusted odds ratios for both male and female students found associations between the drug abuse

variables cannabis and cannabis/mandrax and alcohol use as well as drug control problems and adverse drug consequences. An association between smoking and suicide risk was only found for female students. Other studies found statistically significant odds ratios between 12-month smoking and 12-month suicidal behavior (e.g., Kessler et al., 2007). Odds ratios adjusted by sex, age and drug abuse variables identified only adverse drug consequences and cannabis and cannabis/mandrax as predictor for high suicide risk. Students at high risk of suicide endorse 1) a greater breath of drugs used and pervasiveness of use, 2) less drug use control (i.e., of intended use and of where, when, and how much to use), and 3) greater intrapersonal, interpersonal and social network (school related) consequences due to their alcohol and or other drug use. This finding is in agreement with a study by Eggert and Herting (1993) on drug involvement among low-risk and high-risk high school students in the US. Other studies also found that odds ratios for suicidal ideation and suicide attempts were highest among youth with cannabis and other illegal drug use (Hallfors et al., 2004; Stronski et al., 2000).

Secondly, by measuring the seven facets of drug involvement (drug access, tobacco smoking, alcohol use, cannabis and cannabis/mandrax use, other drug use, drug control problem and adverse drug consequences) we provided a more robust pattern of youth drug milieu. Although frequency of drug use can be a distinguishing characteristic, it is evident that some aspects of drug use are quite prevalent in both the low- and high-risk group, e.g., alcohol use (more than 40% in the period Past Month). In addition, a major distinction is a near lack of adverse use consequences for low-risk users and a lack of

ability to control drug use among the high-risk group. However, looking at accessibility of drugs, there were no significant differences between low-risk and high-risk individuals, as was also found by Eggert and Herting's (1993) sample.

Several implications for prevention programming seem primary. First, the call to reduce the proportion of young people using drugs, that drug involvement among young people at risk of suicide is of particular concern and that reducing their drug use to desired levels will not be easy. Future improvements would need comprehensive preventive intervention efforts targeting individual high-risk young people, their peer networks, their families and their community contexts such as their school and neighborhood. Drug use often seemed to co-occur with drug use control and with different patterns of adverse consequences for high-risk and low-risk youth. Therefore, special strategies targeting various facets of drug involvement will probably be necessary for different subsets of youth such as low-risk and high-risk to reduce the frequency of drug use (Eggert, Herting, 1993).

Thompson, Eggert and Herting (2000) note that risk reduction/prevention programs should do the following: test theory-based prevention models linking risk (such as suicidal behavior, depression and drug involvement) and protective factors; identify and target known high-risk groups or individuals; and to incorporate empirically verified health promotion strategies by including life skills, personal control and social support. Indicated interventions are targeted at those relatively small groups who are found, by screening programs or other inquiries, to manifest a risk factor, condition, or abnormality that identifies them, individually, as being at sufficiently high risk to require preventive interven-

tion. Selective procedures would involve treatment for associated behavior such as substance abuse, decreasing general access to means of suicide, and increasing the number and availability of support networks for those individuals most at risk (Silverman, Maris, 1995).

Study limitations include that the sample was intentionally chosen, and consisted of predominantly Colored (84.6%) and female (69.1%) students. Although the enrollment rate in secondary schools is generally higher for female than for male students, the school population included in the sample seems to over represent female students. Depending on the location of the secondary schools included in the study in Cape Town we expect large differences in racial representation, in this case students came predominantly from areas previously designated Colored. All this is to say that one cannot generalize the findings to secondary school students in Cape Town.

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DROGY MEDZI ŠTUDENTMI STREDNÝCH ŠKÔL
S RIZIKOM SAMOVRAŽDY
(KAPSKÉ MESTO)

K. P e l t z e r

Súhrn: Cieľom štúdie je skúmať užívanie drog (sledované ako frekvencia užívania, dostupnosť, kontrola užívania a nepriaznivé dôsledky užívania) na 1157 študentoch stredných škôl s vysokým a nízkym rizikom samovraždy. Študenti na troch školách v Juhoafrickom Kapskom Meste vyplnili dotazník. Porovnávali sa frekvencia užívania drog, prístup k nim, ich kontrola a dôsledky ich užívania medzi 366 študentmi s vysokým rizikom samovraždy zisteným pomocou *Suicide Risk Screen (SRS)* a 791 študentmi, ktorých výsledky indikovali nízke riziko. Študenti s vyšším rizikom v porovnaní so študentmi s nižším rizikom samovraždy uvádzali oveľa väčší rozsah a mieru užívania drog, menšiu kontrolu a horšie negatívne dôsledky ich užívania. Zistenia sú významné pre preventívne programy, najmä pre študentov s rizikom samovrážd.