
Adolescents Voice their Needs: Implications for Health Promotion and Suicide Prevention

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Abstract

Adolescents' self-perceived need for health-related services, instruction, and environmental changes were investigated. Significant differences were observed between students classed as high and lower risks for suicide and between minority and majority adolescents. Needs in the area of counselling services, services related to sexuality, and interpersonal relationships were priorities for high risk minority students suggesting the need for specific programming targeting these students. For both minority and majority high risk students, educational and career foci paled in comparison to personal and interpersonal struggles, indicating that systemic and group-specific health promotion initiatives may be essential prerequisites to meeting traditional educational mandates.

Résumé

L'article examine le besoin que ressentent les adolescents de services, d'instruction et de changement d'environnement se rapportant à la santé. Des différences importantes ont été observées entre les étudiants classés comme étant en danger considérable ou faible de se suicider, on a également remarqué des différences importantes entre les adolescents minoritaires et majoritaires. Les besoins dans le domaine de services de counseling, de services liés à la sexualité et de relations interpersonnelles étaient des priorités pour les étudiants minoritaires en danger considérable, ce qui suggérerait un besoin de programmes particuliers destinés à ces étudiants. Pour les étudiants minoritaires ainsi que les étudiants majoritaires qui sont en danger considérable, l'éducation et la carrière étaient beaucoup moins importantes que les luttes personnelles et interpersonnelles. Ceci indiquerait que des initiatives de promotion de la santé sont des conditions préalables au niveau du système et au sein de groupes particuliers pour atteindre les mandats éducatifs traditionnels.

The health of Canadian students has been a focus of Canadian research and intervention in recent years. The behavioural and stress-related etiology of many physical health problems is now widely recognized (Altmaier & Johnson, 1992), with psychological and social problems viewed as major causes of morbidity and mortality, particularly in young people (Janoski & Warner, 1991). Environmental factors also are seen as essential components of health assessment and intervention (Haggart, 1993).

Many adolescents face emotional, social, and physical problems which adversely affect school performance and put them at risk of dropping out of school or becoming involved in other self-defeating / self-destructive behaviours (Cameron, Mutter, & Hamilton, 1991). Suicide is the second

leading cause of death among youth ages 15-19 years in Canada (Health Canada, 1995) with the rate of adolescent suicide increasing from 3.3 per 100,000 in 1950 to 13.8 in 1991. In Alberta the rate of adolescent suicide reached 17.6 per 100,000 in 1994 (Alberta Justice, 1995). Factors such as depression, family conflict, stressful life events, and low school performance have been implicated as contributors to suicidality in this age group (Lester, 1993).

There is evidence that the life experiences of adolescents from ethnic minority backgrounds may put them at even greater risk and, ultimately, decrease their opportunities to become productive members of society (Finklestein, 1993). For recent immigrants, separation from extended family and other sources of interpersonal support, language difficulties, and conflicting cultural and value systems can negatively impact confidence and self-esteem (Baptiste, 1990). Minority adolescents may, therefore, require more and/or different services to facilitate their development into healthy adults (Hicks, Lalond, & Peplar, 1993).

In the past two decades, theoretical innovations in the area of school health programming have led to the advancement of an integrative and "student-centred" model known as "Comprehensive School Health" (CSH) which addresses a range of physical, emotional, mental, social, and ecological issues through a three-fold model of healthy environment, health services, and integrated instruction. Suicide prevention is seen as a major component of such programming. Multiple levels of intervention are seen as most effective and may include, for example, identification of risk behaviours or warning signs through risk assessments and/or training of school counsellors and other school personnel, grief and stress counselling, coping skills enhancement, crisis intervention with peers following suicide, etc. (Hamburg, 1994; Sleet, 1994).

A primary component of the CSH model is the participant-based assessment of student health-related needs. This process ensures that the target population is invested in, and motivated to take advantage of the programming and can be adjusted to reflect the specific needs of various subpopulations within each school. Encouraging ethnic minority participation in this process can increase their ownership of the initiative and promote culturally sensitive program development and implementation.

This study occurs in the context of a large scale CSH initiative aimed at developing responsive and comprehensive health programming within the school context. It highlights the assessment of adolescent health-related needs across three Calgary high schools. Two primary research questions were addressed: "What are the differences in the priority of health-related needs between minority and majority students?" and "How do the health-related needs of high risk students compare with those of lower risk students within these two groups?"

METHOD

Participants

The sample consisted of 2,370 students from three senior high schools. In the first two schools approximately half the student body participated in the study; students in each class were randomly assigned either the needs assessment or an impact assessment instrument. In the third school, all students present on the day of administration participated in the needs assessment. The instrument was administered by the teachers in a designated time period with translation services provided to minority students. Due to the progressive nature of the overall initiative, administration in the various schools took place at different times over a period of one year.

Students were asked to provide demographic information on gender, grade, first language, and length of residence in Canada. There was an equal distribution of students across gender and grade in each school. All participants were in grades 10 through 12. The primary minority language groups represented were Arabic, Chinese, Punjabi, Spanish, and Vietnamese. The relative proportion of these groups was 1:6:1:1:3 respectively. One third of the sample fell into a category of "other language groups."

Instrument Development and Procedure

A comprehensive needs assessment instrument was developed using a modified Delphi procedure. A list of potential items was generated through a comprehensive literature review and two Delphi rounds were conducted using students, parents, and school personnel from a pilot school to refine the initial questionnaire. (See Collins (1993) for a detailed description of this process.) Over a period of three years, five more schools participated in the overall initiative. Student focus groups, with specific representation from minority youth, tailored the questionnaire in each school. A series of factor analyses and inter-item correlations were conducted at various points in the process to creating the final structure of the instrument.

The instrument remained relatively stable across the last three schools reported in this study, with some redundancies being eliminated. The final questionnaire consisted of 15 factors, grouped within the three components of the CSH model: health services (physical health, counselling, sexuality, family/home life); instruction (health promotion, physical health, mental/emotional health, sexuality, interpersonal relationships, school performance); and environment (school building/grounds, interaction with students, interaction with school personnel, safety/accident prevention, home atmosphere). Each factor formed a question block containing an average of 12 items. Students rated each

item on a 5-point Likert scale ranging from "Strongly Disagree" to "Strongly Agree." A summary score was calculated for each question block, general needs area, based on the mean of the items it contained. Correlation coefficients for test-retest reliability over a two-week period ranged from 0.58 to 0.90 for the various factors.

RESULTS

Multivariate analyses of variance revealed a main effect for school, minority/majority status, and risk for suicide. In each case, Wilks' Lambda F values were generated for both summary scores and individual factors or question blocks. Significant differences across schools were observed at each level ($p < .05$) so the remaining analyses were performed on a school by school basis. No significant differences were observed among minority language groups or across length of residency in Canada. Cell sized may have been a limitation in this regard. Differences were observed between minority students as a whole and majority (English-speaking) students, however, making it possible to divide the sample into these two groups.

The sample also was subdivided according to the question: "It is important to me personally for the school to provide an opportunity to talk about my thoughts about suicide." Students who strongly agreed with this statement were classified as "high risk." The remaining students were referred to as "lower risk." The category of students responding "Agree" were not included in the high risk group because multivariate analyses of variance revealed no significant difference between these students and those responding "Strongly Disagree," "Disagree," or "Unsure" and significant differences from those who responded "Strongly Agree" ($p < .05$). Table 1 shows the distribution of students by ethnicity, risk level, and school.

In each school, 2x2 multivariate analyses of variance were conducted based on minority/majority status and risk level for both summary scores and individual question blocks. At risk minority students formed the smallest subgroup in each school; equal size samples were, therefore, randomly selected from the other subgroups to create equal cell sizes. The cell sizes from these analyses were 26 in School One, 45 in School Two, and 69 in School Three. In each case, the results of the random selection were compared to the larger sample from which they were drawn to ensure that there were no significant statistical differences between the subsample and the larger sample.

Significant differences were observed for both minority/majority status and risk level but there were no interaction effects ($p < .05$). A detailed reporting of these statistical analyses is beyond the scope of this paper; further information is available upon request. Cell size did not permit breaking the sample down further to analyze gender or age effects.

TABLE 1
Distribution of Students across Level of Suicide Risk, Ethnicity, and School

		<i>Risk Level</i>		<i>Total</i>
		<i>Low to medium</i>	<i>High</i>	
School One	Majority	171	69	240 (56.5%)
	Minority	141	44	185 (43.5%)
	Total	312 (73.4%)	113 (26.6%)	425
School Two	Majority	220	71	291 (73.5%)
	Minority	79	26	105 (26.5%)
	Total	299 (75.5%)	97 (24.5%)	396
School Three	Majority	871	145	1016 (65.6%)
	Minority	464	69	533 (34.4%)
	Total	1335 (86.2%)	214 (13.8%)	1549
Total		1946 (82.1%)	424 (17.9%)	2370

However, these issues are addressed in other studies (Angen & Collins, 1996; Collins & Hiebert, 1995).

The subgroups used in the descriptive analysis presented in this paper were established based on these analyses. The relative priority of the various health-related needs was then established, based on the means for the summary scores and for each individual item. This section provides a descriptive analysis of the similarities and differences in adolescent self-perceived health-related needs among majority and minority students and among high risk and lower risk students within those groups. Results pertaining to summary scores will be presented first followed by results pertaining to the individual items.

General Needs Areas Analysis

For all subgroups, needs related to the school building and grounds, safety and accident prevention, and physical health instruction consistently fell within the top five general needs areas. Other environmental issues related to school atmosphere (interaction with students and interaction with teachers) also remained relatively high priorities for all groups suggesting that systemic or ecological factors represent a central concern. Home atmosphere, services related to family and home life, and instruction related to sexuality were at the bottom of the priority lists for students in all groups.

There were several general needs areas, however, for which the prioritization differed across subgroups. Figure 1 illustrates the relative importance of

these areas across high and lower risk students from both minority and majority groups in School Two. A similar pattern was observed for Schools One and Three. The relative importance represents the rank order of the general needs areas, with the highest priority area receiving a rank of 15 and the lowest a rank of one. Counselling services, services related to sexuality, and issues related to interpersonal relationships were ranked more highly for high risk students than for their lower risk counterparts. The opposite was true for mental health instruction, health promotion, and school performance.

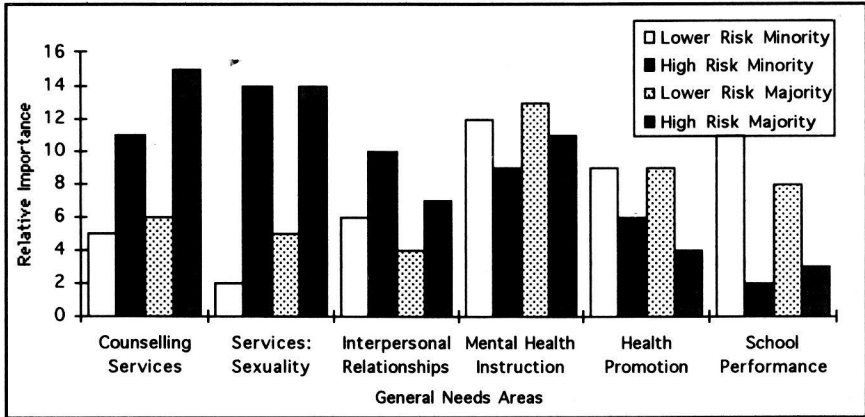


Figure 1

Relative importance of general needs areas for which there is considerable variation across high and lower risk students from majority and minority groups within School Two.

Services related to counselling, sexuality, and interpersonal relationships. Overall, majority students placed more priority on counselling services than minority students. However, there was much greater importance placed on these services by high risk students in each group. For high risk minority students, systemic or ecological factors still remained the highest priorities but for high risk majority students, counselling services became the highest area of need overall.

A similar pattern was noted for services related to sexuality. Lower risk minority students placed the least emphasis on this area which may reflect cultural norms. Minority groups may see counselling and sexuality as private or family matters, affecting the responses of students to these items (Sue & Sue, 1990). It may also be, of course, that this is simply a less pressing need for most minority students. Interestingly, for high risk minority students, this was clearly acknowledged as an important needs area, as it was for high risk majority students. While the need for instruction related to interpersonal relationships of high and lower risk majority

students varied across schools, there was a more consistent need identified by minority students in the high risk group. In fact, these students placed highest priority on this area overall, suggesting that instruction in the area of interpersonal relationships may represent an important point of intervention for them.

Mental health instruction, health promotion, and school performance. For the last three general needs areas in which a difference in relative priority was observed, the pattern reversed with high risk students in each group demonstrating lower needs. For mental/emotional health instruction, this observation is particularly noteworthy since one might have expected that mental health issues would be more critical for adolescents for whom suicide was a concern. The need for instruction in the area of health promotion was also lower for high risk students in both majority and minority groups. Minority students demonstrated a higher overall need for instruction related to school performance, but high risk students from each group placed considerably less importance on this area of health. This observation is not surprising since attention to school performance typically becomes increasingly difficult and, based on the results here, unimportant when other areas of high need exist (Cameron, et al., 1991).

Analysis of Individual Items

Individual items were designated as high priority needs if they fell within the top 25 percent of the items contained within the questionnaire as a whole. A descriptive analysis of the high priority individual items provides important information about that nature of the general need and the differences in relative importance across groups.

Areas of agreement. There was agreement across groups that issues related to school building and grounds, safety/accident prevention, and physical health instruction were high priorities. School atmosphere issues related to interactions among students and interactions between students and school personnel were consistently ranked in the high to moderate range. Students noted working clocks, longer cafeteria hours, and air quality/circulation as needed improvements to the school buildings and grounds; CPR/first aid training, outdoor/survival skills, and seat belt use as issues of safety and accident prevention with minority students also noting trouble with the law; and cancer/heart disease prevention, effects of mental/emotional health, nutrition, and hygiene as instructional needs related to physical health. In terms of interactions with other students, general acceptance/friendliness, violence, racial/cultural acceptance, and sexual discrimination were high priorities across all groups. Interactions with school personnel were characterized by needs related to understanding of student workload/stress, sexual/

racial discrimination, with minority students also highlighting understanding of disabilities and majority students noting abuse recognition and elimination.

Counselling services. For counselling services, the primary focus for both majority and minority lower risk students was on career and course counselling. This was the only priority item for low risk minority students. Those in the majority group also noted a need for non-judgmental listening and, in one school, for personal counselling. For high risk students from both groups, more counselling items were high priorities (five to eight items in each school). Of particular interest was the emphasis on personal counselling, bereavement counselling, and physical/emotional abuse counselling/referral. Clearly, students in both groups at risk of suicide were also struggling with loss, trauma, and other forms of personal distress. Career and course counselling remained a priority but appeared further down the list. It would appear that, just as high risk students are less able to focus on current school performance, they lose some of their emphasis on future goals and planning. There were few differences across schools in this area.

Services related to sexuality. For lower risk minority students, there were no priority needs in this area; few items were identified for lower risk majority students (four in School One, one in School Two, none in School Three). For both high risk minority and majority students, a number of important needs emerged, including the need for counselling and referral related to sexual abuse and assault, suggesting that this may represent another major stressor for high risk students. Needs related to STD/AIDS prevention, birth control, and pregnancy were also highlighted by high risk students from both groups. For School Two, counselling related to prostitution was added by high risk majority students. The differences across schools were reflected in the overall prioritization of this general needs area in the previous section.

Instruction in the area of interpersonal relationships. The final area which was ranked more important by high risk students was instruction related to interpersonal relationships. The difference was most obvious for high risk minority students as reflected by the number of specific items identified as high priorities (two to four per school). For these students, communication, friendship building, and conflict resolution were critical needs, along with peer pressure and discrimination. The dramatic difference between the number of items identified by high risk minority students and high risk majority students suggests that this is an area of particular vulnerability for ethnic minorities.

Mental/emotional health instruction. An examination of the high priority individual needs items in this section provided some important insights in terms of the lower overall emphasis placed on mental/emotional

health instruction by high risk students. Many of the items that were priorities for lower risk students in both groups were noted less often by high risk students, particularly those from the ethnic minority group. These items included money management, time management, sleep patterns, and assertiveness skills. However, there were items which were important to both high and lower risk students and others which high risk students alone identified. Problem-solving and decision-making skills, in particular, were consistent priorities. Self-confidence/self-esteem was a higher priority item for high risk students, particularly from the minority group, and anger management was noted by high risk students from both groups. Thus, while the overall importance of this area was lower, there were several items which were of considerable importance to high risk students in both groups.

Health promotion and school performance. In terms of health promotion and school performance, high risk students identified a lower number of high priority individual items in these sections. Neither high nor low risk majority students saw any of the health promotion items as high priorities. Twice as many items appeared across the three schools for lower risk minority students as for high risk students. In terms of school performance, there were several items which were consistent across minority/majority and lower/high risk categories: more interest in classes, better comprehension, better study skills, and better teach styles/methods. Other items of importance to lower risk students, however, were of less importance to high risk students in either group: life skills focus, more time on school work, more motivation to attend, more course options, and the opportunity to talk with teachers about difficulties. Lower risk minority students also noted the need for more focus on core subjects. Thus while some of the core components of learning were consistently identified, other aspects of school performance were given less emphasis by high risk students, confirming that an increase in need in other areas is likely reflected in a decreased emphasis on school performance.

DISCUSSION AND CONCLUSIONS

Overall, 18% of the students in this study expressed a strong need for suicide counselling services, with a rate of 25% observed in two of the three schools. Clearly, if more than one in every five students has suicidal concerns, suicide research and intervention among adolescent populations is of critical importance. In addition, there is substantial evidence in this study that differences between minority and majority students must be taken into account in both assessment and program planning.

For all adolescents in this study, school environment factors emerged as high priorities for intervention. Improvements to the school building and grounds, safety and accident prevention, changes to the school atmosphere—both in terms of interactions among students and interac-

tions between students and teachers/staff—were consistent priorities and must remain a central focus of any health promotion initiative. For school counsellors, in particular, this observation may suggest a need for an expanded perspective which includes an emphasis on systems level intervention in addition to the traditional focus on individual student needs. The CSH model provides a useful forum for both assessment and intervention from a multi-faceted, collaborative, and interdisciplinary perspective. School counsellors clearly have an important role to play in the development of preventative and proactive strategies to address these broader concerns. Family and home life issues, by contrast, were seen as least important by students from all groups. For minority students this pattern may indicate the preference for utilizing services within their own communities which are more culturally appropriate (Canino, 1988). Majority students seem to also view these issues as irrelevant to school intervention.

Where differences emerged between majority and minority students and between high and lower risk students, however, particular attention should be paid to ensure that programming is specific and relevant to particular subgroups within a given school community. In this study, counselling services, services related to sexuality, and interpersonal relationships were given more emphasis by high needs students. On the other hand, mental health instruction, health promotion, and school performance were less important. This seems to indicate that high risk students have particular concerns which are, in the short term at least, more pressing than academics and instruction.

The low emphasis on counselling and sexuality services by lower risk minority students may be a reflection of cultural barriers to accessing formal counselling services or to looking to the school for personal needs (Sue & Sue, 1990). These are areas where family or cultural community traditionally play an important role (Canino, 1988; Sue & Sue, 1990). The fact that at risk minority students place a much higher weight on these services may be a result of a weakening of those cultural barriers with increased level of need. There also appears to be a clustering of needs for high risk students with suicide counselling going hand in hand with other needs such as personal counselling, bereavement counselling, physical/emotional abuse counselling/referral, and sexual abuse/assault counselling/referral. There is considerable evidence in the literature that issues of loss, victimization, and other personal concerns represent common risk factors among suicidal adolescents (Health Canada, 1995; Lester, 1994). If counsellors are to respond proactively in these areas, some effort may need to be put into breaking down the cultural or other barriers that prevent minority students from identifying a need for services before they find themselves at risk of suicide. In addition, there may be a need to reassess the traditional modes of service

within school communities to develop more culturally sensitive and appropriate models. Culturally sensitive school-based services and programming are supported in the literature as the most effective way of addressing the needs of ethnic minorities (Dryfoos, 1990). Hoberman (1992) states that school-based health centres are one example of initiatives which improve mental health services for ethnic minority adolescents by providing recognizable and flexible services, convenient access, age and cultural appropriateness, and coordination with other significant services.

Both high and lower risk minority students identified interpersonal relationships as a higher priority area than majority students. Minority students often need to develop social skills to adapt to and integrate into a new dominant culture in addition to the typical interpersonal development tasks of adolescence (Baptiste, 1990; Kagitcibasi & Berry, 1989). There are also links between the needs identified in this area and the needs for self-confidence/self-esteem and anger management that were observed for both high risk minority and majority students in the area of mental/emotional health, again suggesting that there is a particular cluster of needs which typifies students with suicide counselling needs. School counsellors and teachers may need to be on the alert for minority students, in particular, who are withdrawn, lacking in confidence or esteem, and socially isolated. However, the fact that school atmosphere issues were among the highest priorities for all students suggests that intervention at the level of systemic change may provide a means of prevention and health promotion that is currently being underutilized. To assume that skill building is the primary intervention modality required may be, in fact, to place responsibility on high risk students, particularly high risk minority students, for problems which are systemic in nature and actually require effort and change on the part of majority and lower risk peers and school personnel.

It is interesting that discrimination emerges as an important issue only for high risk minority students. There is evidence in the literature that the negative social reinforcement of the experience of discrimination can result in self-doubt and anxiety leading to social isolation, loneliness, and feelings of inadequacy or to a search for validation and reinforcement outside societal norms in delinquent and/or criminal activity (Dryfoos, 1990). Overcoming the barriers of discrimination may go hand in hand with developing social skills in communication, friendship building, conflict resolution, etc. Ultimately, however, beneficial programming and policies for minorities must involve the majority population in an educational process to offset the negative effects of discrimination and isolation (Beiser et al., 1988). Fostering positive attitudes between minority and majority students and educating majority students

are essential in easing the alienation experienced by minority students (Prilleltensky, 1993).

Finally, it is important to note the lower level of importance placed on general health promotion issues and on school performance by high risk students and, in the latter area, by high risk minority students in particular. It is commonly acknowledged that students who face higher emotional and social stressors are more likely to engage in risk-taking or self-destructive behaviours, face increased academic difficulties, and are more at risk of dropping out of school (Cameron, et al., 1991; Dryfoos, 1990). Unless these concerns are accurately identified and addressed, these youths cannot fully profit from the educational process (Canadian Association for School Health, 1991). The results of this study suggest that, not only is the ability of such students to absorb and profit from their education hampered, but the degree of importance placed on the education process itself may be reduced.

A similar observation for career and course counselling suggests that both short and long term academic and career and life foci are displaced by current crisis issues for high risk students. While school counsellors and other school personnel should keep career and life management emphasis at the top of their priority list, there is evidence that, for some students, other components of the school-based services, curriculum and instruction, and school environment must be assessed and modified to prevent students from getting to the place where academic and career foci lose importance and to assist students already at risk to resolve the personal and interpersonal struggles that keep them focused primarily on immediate concerns.

There are a number of important limitations which bear on the generalizability of the results of this study. First, low numbers of subjects in several of the ethno-linguistic groups may have masked differences across language groups. Another limiting factor is the lack of data from early school leavers. A number of reviews on ethnic minority adolescents contend that school-based studies which do not account for students who have dropped out, likely underestimate the needs of minority students (Dryfoos, 1990; Hoberman, 1992). Another limitation of the present study was the lack of socioeconomic data. Because poverty and minority status are often confounded (Smith, 1985) an assessment of socioeconomic status might provide an understanding of how poverty affects the needs of all adolescents and possibly confounds our perception of the experience of ethnic minorities (Feagans & Bartsch, 1993).

This study suggests that those students who identify a particular cluster of emotional, personal, and interpersonal issues as high needs are less focused on short and long term educational and career concerns. Such high risk students, particularly those from minority ethnic backgrounds may require special types and modes of intervention designed to address

their high priority needs. Whatever the ultimate mandate of the school, education and health have clearly become "inextricably intertwined" (McGinnis, 1981) and the role of school counsellors and other school personnel must be informed by differences in self-perceived needs of minority versus majority students and of high versus lower risk students.

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