# School Counsellors' Perceptions on Working with Student High-Risk Behaviour Les perceptions des conseillers scolaires du travail avec des étudiants à comportement à risque élevé 

Gregory E. Harris<br>Gary Jeffery<br>Memorial University of Newfoundland


#### Abstract

The current exploratory-descriptive study used a survey design method to examine guidance counsellors' and educational psychologists' perceptions of their preparation, motivation, and effectiveness in preventing, assessing, and intervening into student high-risk behaviour. The study also explored training associated with addressing high-risk behaviour along with the perceived responsibility and roles of school counsellors when faced with such behaviour. Views related to the following seven categories of high-risk behaviour were explored: (a) suicide attempts; (b) self-mutilation (e.g., cutting); (c) bullying; (d) extreme school violence (e.g., school shootings, bombings); (e) eating disorders and related behaviour (e.g., extreme exercising); (f) sexual behaviour leading to risk of HIV or other sexually transmitted infections (STIs); and (g) drug-using behaviour (e.g., IV drug use, needle sharing) leading to risk of HIV or other STIs. Implications for training, practice, and research are discussed.


## RÉSUMÉ

Cette étude exploratoire-descriptif utilisait une méthode de conception d'enquête pour examiner les perceptions des conseillers d'orientation et des psychologues scolaires de leur préparation, leur motivation, et leur efficacité dans la prévention, l'évaluation, et l'intervention dans les comportements à risque élevé des étudiants. L'étude explorait aussi la formation pour adresser le comportement à risque élevé ainsi que la responsabilité et les rôles perçus de conseillers scolaires présentés avec de tel comportements. Les sept catégories suivantes de comportement à risque élevé ont été explorées: (a) les tentatives de suicide; (b) l'automutilation (e.g., autolacération); (c) l'intimidation; (d) la violence extrême à l'école (e.g., les fusillades et les attentats à la bombe); (e) les troubles d'alimentation et les comportements reliés (e.g., l'entraînement excessif); (f) le comportement sexuel menant au risque de VIH ou aux autres infections transmissibles sexuellement (ITS); et (g) la consommation de drogues (e.g., l'abus de drogues prises par voie intraveineuse, l'échange d'aiguilles) menant au risque de VIH ou aux autres ITS. Les implications pour la formation, la pratique, et la recherche sont discutées.

High-risk behaviour, such as bullying or drug use, has adverse impacts on society and in our school environments. High-risk behaviour can be hidden or pervasive. It is often dangerous to self and others. Student and teacher safety needs to be a priority within the school setting.

School counsellors (including both guidance counsellors and educational psychologists in this article, unless otherwise noted), given their training and position within the school, have a potential role to play in high-risk behaviour prevention, as well as in its assessment and intervention. Unfortunately, little research has been conducted to explore the role(s) of school counsellors or their perceived preparation, motivation, and effectiveness in addressing these behaviours.

Several studies have found that school counsellors and pre-service school counsellors (i.e., students enrolled in a school counselling training program) can feel ill prepared, or lack confidence, in addressing such behaviour (Carney \& Cobia, 2003; King, Price, Telljohann, \& Wahl, 2000; Schaefer-Schiumo \& Ginsberg, 2003). In addition, research on the training of school counsellors to address these high-risk behaviours is limited.

This article seeks to help elucidate our understanding of the school counsellor's role and preparation to address these behaviours. Specifically, the current article details school counsellors' perceptions of their preparation, motivation, and effectiveness in preventing, assessing, and intervening into student high-risk behaviour. It also discusses training associated with addressing high-risk behaviour along with perceived responsibilities and roles of school counsellors when faced with such behaviour.

## SCHOOL COUNSELLORS AND STUDENT HIGH-RISK BEHAVIOUR

Strack, Vincent, Hussey, and Kelly (1998) support multifaceted intervention programs for the reduction of many types of high-risk behaviour among youth (e.g., unprotected sexual behaviour). These programs, containing multiple intervention dimensions, often include school and community interventions and typically involve several professionals. School counsellors are often "first line" interveners, and contribute greatly to the overall success of the intervention (Costin, Page, Pietrzak, \& Kerr, 2002). In fact, school counsellors are often called upon to be the coordinators or leaders of such services (King et al., 2000; Smaby, Peterson, Bergmann, Zenter Bacig, \& Swearingen, 1990). Thus, the school counsellor needs to have the knowledge, skills, abilities, and comfort level to offer prevention, assessment, intervention, and referral strategies.

Research has highlighted the potential importance of school counsellors being involved in several specific high-risk behaviour situations, including high-risk sexual behaviour, drug use, youth violence, suicide/suicidal ideation, and disordered eating. This makes sense, given school counsellors' training/expertise and position within the school environment.

School counsellors can play an important role in preventing HIV and other infectious diseases through guiding and educating teens in engaging in safer sex practices and reducing/eliminating high-risk sexual behaviour as well as dangerous drug use (Stevens-Smith \& Remley, 1994). The Public Health Agency of Canada (2005) reports that "the potential exists for the spread of HIV among young Canadians" (p. 1). McFarland and Oliver (1999) suggested that HIV rates are
on the rise among youth, and school counsellors can play an important role in reducing high-risk behaviour that contributes to HIV infection (Cobia, Carney, \& Waggoner, 1998; McFarland \& Oliver, 1999).

Adelman (1998) and Costin et al. (2002) reported that school counselling is essential for students who are in crisis or dealing with psychosocial issues associated with being infected with, or affected by, HIV. However, some research (e.g., Carney \& Cobia, 2003) has suggested that school counsellors and school counsellors-in-training may have limited specialized HIV knowledge and some overall discomfort in counselling situations with this population.

Another area of concern is youth violence. Researchers (e.g., Sandhu, 2000; Schaefer-Schiumo \& Ginsberg, 2003) reported that youth violence is a major concern in our society. School counsellors can play an important role in school violence prevention as well as intervention, provided they have the necessary knowledge and skills to deal with such instances (Bauman, 2008; SchaeferSchiumo \& Ginsberg, 2003). Sandhu (2000) reported that "As the pressure to develop [school violence prevention/intervention] programs increases, schools are increasingly turning to school counsellors for leadership and guidance" (p. iv).

Schaefer-Schiumo and Ginsberg (2003) reported that in their research and teaching, graduate counselling students frequently reported needing more preparation and training in dealing with youth violence. Allen et al. (2002) noted that training to deal with violence should be a high priority topic within counsellor education programs. Canada et al. (2007) reported that school counsellors need more training in dealing with school violence, especially when dealing with youth and families from diverse ethnic backgrounds.

Suicide and suicidal ideation are also high-risk behaviours often encountered by school counsellors. In fact, some researchers (e.g., King et al., 2000; King \& Smith, 2000; Smaby et al., 1990) suggested that school counsellors should be encouraged to lead crisis prevention and intervention surrounding suicide issues. Peach and Reddick (1991) reported that school counsellors' knowledge and skills in dealing with adolescent suicide risk can have a major impact on schools' overall success in dealing with youth at-risk for suicide. Indeed, King, Price, Telljohann, and Wahl (1999) suggested that many school counsellors believe that it is their responsibility to identify students who may be at risk for suicide. Related legal rulings (e.g., Pate, 1992) have determined that school counsellors have some responsibility for protecting students at risk for suicide.

King et al. (1999) and Popenhagen and Qualley (1998) reported that school counsellors need training in suicide prevention and intervention to be effective in their roles. Some American-based research (e.g., King et al., 2000) suggested that school counsellors are knowledgeable about suicidal risk factors and intervention strategies, but that many do not feel confident that they could identify a student at risk for suicide. Allen et al. (2002) also highlighted the importance of counsellor education programs making suicide training a high priority topic. Canada et al. (2007) noted that school counsellors need additional training in addressing suicide, especially when working with youth and families from diverse ethnic backgrounds.

Another example of high-risk behaviour encountered by school counsellors is disordered eating and weight/body image maintenance patterns. Bardick et al. (2004) noted that school counsellors maintain daily contact with children and adolescents, a group at the highest risk for developing eating disorders. Boes, Ng , and Daviston (2004) suggested that school counsellors need training and education regarding eating disorders, as they are in a position conducive to identification, prevention, and intervention of these types of problems.

Yager and O'Dea (2005) also highlighted the importance of school professionals (i.e., including school counsellors and school psychologists) being involved in the prevention of eating disorders; however, they note that these school professionals have been "largely underutilized as such potential change agents" (p. 273). As seen, little research has been conducted to explore school counsellors' perceived preparation, motivation, and effectiveness levels in dealing with eating disorders.

As noted above, the available research, although sparse, illustrates that some preservice and practicing school counsellors can feel ill prepared when dealing with high-risk behaviour situations. The current article contributes to our understanding of school counsellors' perceived competencies in addressing such behaviour (and consequently their willingness to act). In addition, this article examines school counsellors' perceptions of their training, responsibilities, and roles-areas insufficiently addressed in the current research literature. More specifically, it expands this research, and offers a Newfoundland and Labrador perspective as well.

## METHOD

## Procedure

The study was conducted within all four English-speaking school districts in Newfoundland and Labrador. Some of these schools were geographically distant from larger centres, with several areas being quite rural and isolated. Initial approval was sought from the four school districts' superintendents, and ethics approval was obtained from Memorial University's Research Ethics Board. One district required permissions from individual principals, so principals from this district were contacted to seek permission.

Potential participants were mailed the study questionnaires, an informed consent form, a postage-paid and addressed return envelope, and a $\$ 1.00 \mathrm{MacDonald}$ 's coupon. A reminder letter was also mailed out to all potential participants 6 weeks following the initial survey distribution.

## Participants

One hundred fifty-nine guidance counsellors and 35 educational psychologists were surveyed, encompassing the entire population of guidance counsellors and educational psychologists in these districts, with the exception of 4 guidance counsellors whose principals refused participation. One hundred ninety-four questionnaire packages were sent either directly to principals ( $n=60$ ), to guidance counsellors ( $n=99$ ), or to educational psychologists ( $n=35$ ).

Of the questionnaires mailed, $26.4 \%$ of the guidance counsellors ( $n=42$ ), $25.7 \%$ of the educational psychologists ( $n=9$ ), and 1 guidance counsellor/educational psychologist completed questionnaires (total $N=52$; total response rate $=26.8 \%$ ). The mean age of participants was 43.86 years ( $S D=6.73$ years), with a range of 30 to 55 years. The sample was $36.5 \%$ male $(n=19)$ and $61.5 \%$ female ( $n=32$ ). One participant did not reply to this question.

All participants who responded to the item on education $(n=51)$ had completed a master's degree in an applied area of psychology (e.g., counselling, educational, school, clinical) or general counselling. The majority reported completing a degree in counselling psychology $(n=19)$ or counselling ( $n=16$ ). Fifty-one participants reported a mean of 13.80 years ( $S D=7.14$ years) since completion of their final degree. In addition, 51 participants also reported a mean of 12.81 years $(S D=$ 7.23 years) of working in their current occupation. Thirty-six participants reported that they worked in a rural setting, 9 reported working in an urban setting, while 5 reported working in both rural and urban settings.

## Questionnaires

Demographic questionnaire. Participants received a demographic questionnaire, constructed by the first author with input from other education professionals, measuring several variables (e.g., sex, age, education level, occupation title, tenure, working environment).

Training experiences questionnaire. Participants also received a measure constructed by the first author, assessing formal training (e.g., coursework) over the past 5 years, and self training (e.g., self-directed reading) on high-risk behaviour and actual work experiences in high-risk behaviour areas. To measure each highrisk behaviour category, respondents were asked to estimate the number of hours spent in training or actually dealing with such behaviour.

They were also asked to rate, on a 5-point scale, the importance of specific training formats (e.g., formal university coursework, supervised working experiences) in terms of preparing them to address each high-risk behaviour. The same scale was also used to measure the importance of specific aspects of formal university coursework, seminars, and professional development workshops (e.g., assigned reading, theory, professor/teacher demonstrations) in terms of preparing them to address high-risk behaviour.

High-risk questionnaire. Participants also received a measure constructed by the first author to assess, on a 5-point scale, perceived preparation, motivation, and effectiveness to prevent, assess, and intervene into each of the seven high-risk behaviours (this occurred in Section 1 of the high-risk questionnaire). Participants' views related to the following seven categories of high-risk behaviour were explored through the questionnaire: (a) suicide attempts; (b) self-mutilation (e.g., cutting); (c) bullying; (d) extreme school violence (e.g., school shootings, bombings); (e) eating disorders and related behaviour (e.g., extreme exercising); (f) sexual behaviour leading to risk of HIV or other sexually transmitted infections (STIs); and (g) drug-using behaviour (e.g., IV drug use, needle sharing) leading to risk of HIV or other STIs.

Section 2 of this measure, using a percentage scale, explored current and desired responsibility levels to prevent, assess, and intervene into each of the highrisk behaviours. Sections 3, 4, and 5 explored specific roles (e.g., team leader, bystander, team member) and actions (e.g., assess the situation, consult with a colleague, seek supervision) that participants had taken in dealing with high-risk behaviours.

## RESULTS

## Data Analysis

All data were entered into SPSS version 15. Descriptive statistics were run on the data as well as correlations and mean comparisons ( $t$-test, one way ANOVA). Results are detailed below.

The following advanced organizer highlights the results presented below. The first section of the results, Training, includes information on participants' training in relation to preventing, assessing, and intervening into high-risk behaviour. It also focuses on participants' perceptions of the importance of various dimensions of training. The second section, Perceived Preparation, Motivation, and Effectiveness, reports on participants' perceived preparation, motivation, and effectiveness in preventing, assessing, and intervening into various high-risk behaviour categories. The final results section, Responsibility and Responses, details participants' reported responsibility levels for addressing high-risk behaviour as well as their reported roles and typical responses in dealing with high-risk behaviour.

## Training

High-risk behaviour training experiences. Participants' training experiences regarding preventing, assessing, and intervening into high-risk behaviour, over the previous 5 years, varied widely (see Appendix A). Participants tended to report more (in both frequency and quantity) formal training in the prevention, assessment, and intervention of bullying as compared to other high-risk behaviour categories. Roughly half of the sample reported formal training in suicide assessment $(n=26)$ and intervention $(n=27)$. Greater than half of the sample reported formal training in prevention ( $n=28$ ), assessment ( $n=30$ ), and intervention ( $n$ $=30)$ of student self-mutilation. The majority of participants reported no formal training over the past 5 years, in the prevention, assessment, and intervention of the remaining high-risk behaviours (see Appendix A).

The majority of participants indicated self training, over the past 5 years, in the assessment, prevention, and intervention of suicide attempts, self-mutilation, bullying, extreme school violence, and eating disorders (see Appendix B). The majority also indicated self training in the area of prevention $(n=27)$ and intervention ( $n$ $=28)$ of high-risk sexual behaviour, but not in the assessment of high-risk sexual behaviour $(n=23)$ or the prevention $(n=24)$, assessment $(n=20)$, or intervention $(n=22)$ of drug use. The greatest frequency and quantity of self training was again around bullying (see Appendix B).

Participants also reported on their direct involvement in preventing, assessing, and intervening into the various high-risk behaviours over the previous 5 years (see Appendix C). The majority reported involvement with prevention, assessment, and intervention of suicide attempts, self-mutilation, bullying, and eating disorders. A small majority indicated they had engaged in intervention into extreme school violence ( $n=28$ ) and high-risk sexual behaviour ( $n=27$ ), but not the prevention or assessment of these activities. The majority of respondents indicated that they did not prevent, assess, or intervene into drug-using behaviour.

Training Components. Participants were asked to rate, on a 5-point Likert scale, their perceptions of the importance of different aspects of formal training around high-risk behaviour prevention, assessment, and intervention. Roughly four fifths $(82.7 \%, n=43)$ reported that formal university course work, supervised working experiences, and seminars and professional development courses (e.g., continuing education) were an important or strongly important part of their high-risk behaviour training. In addition, $80.7 \%(n=42)$ reported that supervised practicum or internship training was important or strongly important. Fewer participants reported important or strongly important responses for non supervised working experiences ( $n=29$ ), independent study $(n=38)$, and conducting research $(n=23)$ in the area of high-risk behaviour training. Participants also rated various dimensions of formal coursework, seminars, and professional development courses designed to teach high-risk behaviour training on the same 5-point Likert scale. Here, participants viewed many of the training dimensions as important. Interestingly, theory was perceived as the least important training dimension by study participants ( $M=$ $3.24, S D=1.109$ ) (see Appendix D), with $28.6 \%$ of the responding sample ( $n=$ 14) indicating theory was strongly not important or not important.

## Perceived Preparation, Motivation, and Effectiveness

Participants were asked on a 5-point Likert scale to rate their perceived preparation, motivation, and effectiveness in preventing, assessing, and intervening into each of seven high-risk behaviour categories (see Appendices E-K). Participants' overall responses suggested that they were more highly motivated than prepared or effective on all seven high-risk behaviour dimensions. The actual degree of reported preparation, motivation, and effectiveness varied by high-risk behaviour category. Overall, participants' perceived preparation, motivation, and effectiveness were highest around the bullying high-risk behaviour category (see Appendix G).

Participants reported mean scores in the moderate to high neutral range for perceived preparation and effectiveness for suicide and self-mutilation (albeit perceived preparation to prevent and be effective around self-mutilation fell in the lower range of the neutral category). Participants' mean scores fell in the disagree category or the low end of the neutral category for the remaining high-risk behaviour categories (i.e., extreme school violence, eating disorders, sexual behaviours, and drug use) in terms of preparation and effectiveness. Again, higher motivation scores suggested that participants may have had more motivation then they had perceived preparation or effectiveness.

Interestingly, there were some significant relationships between actually being directly involved in dealing with aspects of risk and levels of perceived preparation, motivation, and effectiveness for some of the high-risk behaviour categories (see Appendix L). This provided some support for the notion that perceived readiness is related to prevention, assessment, and intervention into high-risk behaviour. Participants who indicated actual work involvement in prevention of self-mutilation reported higher levels of feeling prepared and effective to prevent these behaviours, as compared to those who reported no involvement in prevention activities.

Involvement with any aspect of extreme school violence (i.e., preventing, assessing, or intervening) was significantly related to feeling prepared to act in this area (see Appendix L). Having had work experience in the assessment of extreme school violence versus not having had experience in this area was also significantly related to motivation (i.e., prevention and assessment) as well as all three dimensions of feeling effective (prevention, assessment, and intervention). Thus, school counsellors who had conducted assessments in extreme school violence situations reported higher levels of motivation to prevent and assess extreme school violence as well as higher levels of perceived effectiveness at preventing, assessing, and intervening into extreme school violence as compared to school counsellors reporting no assessment involvement in this area.

Having been involved in preventing eating disorders was significantly related to all three dimensions of feeling effective (i.e., preventing, assessing, and intervening) in this area. Dealing with aspects of sexual behaviour was significantly related to all dimensions of prevention, assessment, and intervention in this area. A similar relationship was noted with drug use. Participants reporting involvement with prevention and intervention activities, versus those with no involvement in this area, reported significant differences on all preparation, motivation, and effectiveness dimensions, with one exception (feeling effective to prevent drug use was not significant regardless of work experience versus no work experience in the intervention of drug use). Finally, having had experience in the assessment of drug use was also significantly related to all three dimensions of feeling prepared as well as feeling effective at assessment.

Few significant differences existed between those participants who reported work involvement in suicide prevention, assessment, and intervention compared to those who did not report work involvement in said activities in terms of selfreported preparation, motivation, and effectiveness in the prevention, assessment, and intervention of suicide.

As also seen, there were a number of moderate to strong correlations within the various high-risk behaviour dimensions (see Appendices E-K). There were strong positive correlations between perceived preparedness and perceived effectiveness among the various high-risk behaviour categories. For all high-risk behaviour categories, there were significant moderate to strong positive correlations ( $\leq .01$ level, two-tailed) between perceived preparation and perceived effectiveness.

For all high-risk behaviour categories there were significant mild to moderate positive correlations between perceived motivation and perceived effectiveness, with
the exception of the intervention category for bullying (note: data for this category were not normally distributed). In addition, these correlations were lower than all perceived preparation and perceived effectiveness correlations, with the exception of motivation for assessment and effectiveness for assessment versus preparation for assessment and effectiveness for assessment for the self-mutilation category (.713, $\leq .01$ level, two-tailed versus $.640, \leq .01$ level, two-tailed, respectively). Significant (at the . 01 level, two-tailed), albeit lower, correlations were noted between motivation and preparation among the high-risk behaviour dimensions.

The correlations between preparation and motivation were smaller in size for most of the high-risk behavioural categories (i.e., suicide, self-mutilation, eating disorder, and drug use). There were no significant correlations noted between preparation to prevent and motivation to prevent, preparation to assess and motivation to assess, and preparation to intervene and motivation to intervene for the eating disorder category.

## Responsibility and Responses

Responsibility. Participants were asked to rate, on a $0-100 \%$ scale, the amount of responsibility they felt they had for preventing, assessing, and intervening into the seven high-risk behaviour dimensions (see Appendix M). Following this, they were asked to rate their desired level of responsibility, on the same scale, for preventing, assessing, and intervening into each of the seven high-risk behaviour dimensions (see Appendix N). Interestingly, there were significant differences between current and desired responsibility levels for suicide (prevention, assessment, and intervention), self-mutilation (assessment and intervention), bullying (assessment and intervention), and eating disorders (intervention) (see Appendix O ).

These significant differences reflected participants' wanting less responsibility in addressing these high-risk behaviour dimensions. Participants indicated their highest current responsibilities around the assessment ( $M=75.29 \%, S D=27.48$ ) and treatment $(M=70.98 \%, S D=29.48)$ of suicide. As seen in Appendix M, participants also reported current responsibility scores in the $60 \%$ range for selfmutilation and bullying. However, current responsibility scores were reported in the $50 \%$ and $40 \%$ range for the remaining high-risk behaviour dimensions. Scores were especially low for sexual behaviour and drug-using behaviour. As noted above, participants' scores suggested they were interested in significantly less responsibility in dealing with suicide, self-mutilation, and bullying. Participants seemed relatively satisfied with current levels of responsibility for the remaining high-risk behaviour dimensions.

There were also some significant differences in terms of responsibility levels between those participants who reported actual work involvement with high-risk behaviour and those reporting no actual work involvement in these activities (see Appendix P). In addition, there were also some significant differences in rated responsibility levels between those participants who reported that it was their role to prevent, assess, or intervene into the specific high-risk behaviours and those who did not report that it was their role to deal with these behaviours (see Appendix Q).

Roles and responses. Participants were also asked to rank order the top three probable actions they may take in dealing with a student high-risk behaviour (see Appendix R). The majority of participants who responded to this question indicated their first response would be to become directly involved in assessing and intervening into each of the high-risk behaviours. This was especially strong for suicide, self-mutilation, and bullying. Participants' second action choice was often to consult with a colleague, and the third was typically to transfer the case to a different type of helping professional. Other response categories were far less endorsed (e.g., seek supervision, bring case to team leader prior to taking action).

Participants were also asked about roles they assumed in dealing with the various high-risk behaviours (see Appendix S). As seen, a large number of participants perceived themselves as taking on a team leader role in dealing with suicide, selfmutilation, and bullying. Fewer participants reported such a role in dealing with the remaining high-risk behaviour dimensions. Importantly, very few respondents reported taking on a "bystander" role.

A small subset of the participants did report "working alone." As noted above, Appendix C highlights those participants reporting actual engagement in prevention, assessment, or intervention activities (i.e., hours worked) over the past 5 years. In contrast, Appendix $S$ shows those who saw prevention, assessment, or intervention as their perceived role. As can be seen, a large number of participants did not endorse these types of roles (e.g., prevention, assessment, intervention) as being part of their professional role. This was especially the case for extreme school violence, eating disorders, sexual behaviours, and drug use. A larger than expected group indicated that prevention, assessment, and intervention of suicide, self-mutilation, and bullying were also not part of their roles. Importantly, not perceiving an activity as part of their role did not preclude participants from actually engaging in the activity over the past 5 years (see Appendix C).

## DISCUSSION

## Training and Roles

Training was a core consideration in the current study. Several authors (e.g., Carney \& Cobia, 2003; Furlong, Babinski, Poland, Munoz, \& Boles, 1996) suggested that some school counsellors and school psychologists do not receive sufficient training in dealing with certain high-risk student behaviour. The current study found that a large number of school counsellors received no formal training, over the previous 5 years, in addressing some types of high-risk behaviour. Areas such as sexual behaviour, drug use, and eating disorders were especially unlikely to have been addressed through formal training.

Interestingly, a large number of school counsellors indicated that they did not perceive prevention, assessment, or intervention of these types of high-risk student behaviour as their role. This could be a consequence of not having received formal training in this area. Perhaps in some cases instructors in their training programs did not recognize these as critical to counsellors' roles. It is also possible
that few opportunities exist for formal training in these areas, making it difficult to obtain training.

Nonetheless, several researchers (e.g., Boes et al., 2004; Yager \& O’Dea, 2005) have suggested that school counsellors have the potential to have positive impacts on students dealing with, or at risk for, eating disorders, provided they receive sufficient training. In addition, Nagel, Scherer, and Lee (2000) reported that school counsellors in their study noted student substance abuse as their paramount concern. Other researchers (e.g., Cobia et al., 1998; McFarland \& Oliver, 1999; Stevens-Smith \& Remley, 1994) have suggested that school counsellors can play a role in HIV risk reduction behaviour, including high-risk sexual behaviour, among youth.

While a larger number of participants in the current study reported self-training activities, many also reported no self-training in dealing with high-risk sexual behaviour, drug use, and eating disorders. Again, this likely reflects the reality that some school counsellors do not perceive dealing with these types of student high-risk behaviour as their role. This does raise the question as to which helping professional would address these behaviours and why some school counsellors would perceive it as their role and others would not.

The great majority of participants reported formal training on the topic of bullying. This could reflect the availability of formal course work at the local university. In addition, many participants perceived this area as falling within their roles.

Suicide assessment and intervention, two frequently cited responsibilities of school counsellors (King et al., 2000), were noted by roughly half of the sample as having been a topic of formal training over the past 5 years. The majority indicated self-training in these areas. This highlights the importance of ensuring the availability of high-quality formal training opportunities in the area of suicide assessment and intervention. This is consistent with previous research (e.g., Allen et al., 2002; Canada et al., 2007), which highlights the importance of school counsellor suicide training.

Interestingly, a subset of the participants reported not engaging in prevention, assessment, or intervention of suicide over the past 5 years and a large subset reported this as not being one of their roles. While several authors (e.g., Costin et al., 2002; King et al., 2000; Schaefer-Schiumo \& Ginsberg, 2003; Stevens-Smith \& Remley, 1994) have reported that school counsellors have a responsibility to prevent, assess, and intervene into various high-risk student behaviour, including student suicide risk, several participants in this study did not see it as their role and wanted less responsibility.

Some of the differences found in the current study could have to do with different types of roles assumed by school counsellors and educational psychologists locally. However, each of these groups is cited in the literature as playing an important role in dealing with student high-risk behaviour (Costin et al., 2002; Furlong, Morrison, \& Pavelski, 2000; King et al., 2000), suggesting that each group has a potential role to play. It is possible that the nature of that role may need to be further tailored to individual school counsellors' training background and interests, as well as school needs.

The majority of participants reported engaging in the prevention, assessment, and intervention of suicide attempts, self-mutilation, bullying, and eating disorders (but not in the remaining high-risk behaviours) over the past 5 years. A subset of school counsellors seemed to be engaged in dealing with high-risk student behaviour while not actually seeing it as their role, suggesting the possibility that some school counsellors have had to step outside of their perceived role in times of high-risk student behaviour.

In addition, some school counsellors in this study reported intervening in student sexual behaviour and extreme school violence, but not assessing or acting to prevent these behaviours, suggesting a potential need to intervene in response to such behaviour, even if this may ordinarily fall outside one's professional role. Taken together, this may suggest that school counsellors can be expected to deal with certain high-risk behaviour even if it is not part of their defined role.

Interestingly, data from the current study suggest participants may be more motivated then they are prepared or effective (at least in terms of their personal perceptions) in addressing student high-risk behaviour. Thus, there may be a need to offer training in areas such as extreme school violence and high-risk sexual behaviour, even to those school counsellors who perceive these types of behaviour as falling outside of their professional role. Perhaps an effort should be made to encourage current and future school counsellors to receive training in these high-risk behaviour areas as they may be called upon to assess or intervene into these student high-risk behaviours. It appears that the subset of school counsellors now addressing these behaviours may need and desire further access to training.

Similarly, a majority of participants reported addressing eating disorder behaviours, and they indicated that they received very little or no formal training over the past 5 years in this area. Again this may reflect a need for future formal training. The high proportion of participants reporting self-training in dealing with several high-risk student behaviours could also indicate a desire among school counsellors for more formal training opportunities (e.g., professional development seminars) in these areas. This could highlight a need for universities to increase emphasis in these areas.

Counselling psychology, school psychology, and general counselling have placed a clear emphasis on prevention activities (Beatch et al., 2008). In this study, a similar number of participants reported involvement in formal and self-training in terms of prevention and in assessment and intervention for high-risk behaviour. The same was true for involvement in prevention activities compared to assessment and intervention; similar numbers of participants reported preventing high-risk behaviours and assessing and intervening into high-risk behaviours (one exception to this was found; fewer participants reported prevention of self-mutilation behaviours as compared to intervention and assessment of self-mutilation).

Interestingly, though, participants indicated spending more actual hours involved with the intervention of suicide, self-mutilation, and bullying than they did with the prevention or assessment of these activities (it is important to note that some participants reported extreme scores on the intervention category, which
contributed to larger reported intervention hours worked). Participants reported spending more time in the prevention of some eating disorders, extreme school violence, sexual behaviour, and drug-using behaviour than on intervention and assessment in these areas. This could speak to participants' discomfort levels with intervention and assessment in these high-risk behaviour domains.

Similar numbers of participants reported it was their role to prevent bullying, extreme school violence, eating disorders, sexual behaviours, and drug use as reported it was their role to intervene into and assess these behaviours. Fewer participants (i.e., roughly one third fewer) reported it was their role to prevent suicide and self-mutilation than reported it was their role to offer intervention and assessment into these two behaviours. This suggests that this subset of participants differentiated between prevention and assessment/intervention. In other words, they did not perceive a proactive approach (inasmuch as prevention is the proactive option compared with assessment and intervention) as part of their role for these two high-risk behaviour categories. Overall, there is some indication in this sample that prevention of certain high-risk student behaviour may be perceived as less part of school counsellors' roles/responsibilities than are assessment and intervention. Having said that, prevention was a core activity for many of the participants.

Participants rated a number of training dimensions as being important in helping them feel prepared to deal with high-risk behaviour. "Theory" was rated lower than a number of the other dimensions. In a study of elementary and secondary school counsellors' perceptions of graduate training dimensions, counselling theory was rated in 9 th place out of 24 dimensions for elementary school counsellors and 12th out of 24 for secondary school counsellors (Perusse \& Goodnough, 2005). This is deemed problematic by the current authors, as theory is an important training dimension. The reasons that some school counsellors do not perceive theory as an important training dimension need to be explored. In addition, instructors and professors need to be aware of this potential perception among some students/ trainees. Focusing on the applied aspects of training will be important to help provide students/trainees with what many seem to want, but helping to build in the rationale for theoretically informed practice is also an important dimension of training.

## Feeling Able to Address Problems

Participants' perceptions of their preparation, motivation, and effectiveness to address high-risk behaviour varied as to the type of behaviour. Research (e.g., Debski, Spadafore, Jacob, Poole, \& Hixson, 2007; Furlong et al., 1996; King et al., 2000; Schaefer-Schiumo \& Ginsberg, 2003) suggests that some school counsellors/psychologists in training as well as some school counsellors/psychologists perceive themselves as being unprepared to address certain high-risk behaviour (e.g., suicide, school violence). Overall, participants in this study felt themselves most able to address bullying, the most common high-risk behaviour addressed by the school counsellors in our study.

Researchers have highlighted school counsellors' role in addressing bullying (e.g., Bauman, 2008; Jacobsen \& Bauman, 2007; McAdams \& Schmidt, 2007). However, researchers have not suggested placing such a higher emphasis on addressing bullying as compared with other forms of high-risk behaviour.

Participants in the current study reported perceiving relatively low levels of preparation and effectiveness in dealing with extreme school violence and drug use. Some researchers (e.g., Bernes \& Bardick, 2007; Furlong et al., 2000; Lambie \& Davis, 2007; Watkins, Ellickson, Vaiana, \& Hiromoto, 2006) have suggested that school counsellors and psychologists can play a key role in addressing these types of high-risk behaviour. School counsellors need training and supervision in these areas and need clear direction to identify these responsibilities as part of their roles.

Some significant relationships were found between participant groups who reported actual work involvement with high-risk student behaviour and those reporting no work involvement in addressing high-risk behaviours in terms of their perceived preparation, motivation, and effectiveness. There are a number of potential explanations for these relationships.

If addressing high-risk behaviour is an expected part of a counsellor's job, it is possible that the counsellor would seek out additional expertise in this area. It is also possible that having work experience in the area may help school counsellors feel more able to address these behaviours. Or perhaps having these responsibilities as part of their professional role results in an enhanced perception of ability, confidence, or legitimacy to deal with these types of issues. Protection motivation theory, highlighting several dimensions that predict motivation to act in high-risk situations, including a threat appraisal indicating risk potential and perceived intervention efficacy (Nagel, Scherer, \& Lee, 2000), could help explain the above-noted relationships. Further research could explore the above potential relationships in more depth.

Several authors (e.g., Costin et al., 2002; King et al., 2000; Schaefer-Schiumo \& Ginsberg, 2003; Stevens-Smith \& Remley, 1994) have highlighted that school counsellors should play an important role in dealing with high-risk student behaviour. Thus, it could be problematic if a counsellor is unprepared or unmotivated to assess or intervene in a case when called upon, especially in a rural area where other options may be harder to identify. In the current study, a small subset of participants reported that addressing some high-risk behaviours were not part of their perceived role, yet they had addressed these behaviours over the past 5 years. It is also important to note that participants' levels of motivation were higher than their perceived preparation and effectiveness for all seven of the high-risk behaviour categories. This suggests a need to help ensure school counsellors are ready for what might happen, despite the possibility that an issue might be outside of one's perceived professional role, and also to help school counsellors feel more effective and prepared to address such issues (i.e., in line with their levels of motivation).

## Responsibility

In line with current research (e.g., King et al., 2000), participants reported their highest levels of current responsibility related to dealing with suicide. "Responsibility" is used here in an attempt to capture the degree to which participants feel responsible for dealing with the high-risk behaviour categories included in this article. They also reported high levels of responsibility for dealing with self-mutilation and bullying. Research has highlighted school counsellors' responsibilities in dealing with these types of behaviour (Jacobsen \& Bauman, 2007; McAdams \& Schmidt, 2007; Moyer, Haberstroh, \& Marbach, 2008).

Participants' responses in the current study highlighted significant differences between current responsibility and desired responsibility in dealing with suicide, self-mutilation, and bullying (with the exception of preventing bullying and selfmutilation). This suggests some potential concerns with current responsibility levels in addressing these behaviours. This finding may highlight the importance of counsellors having a say in their job duties when it comes to addressing student high-risk behaviour.

For the most part, there were no significant differences between current responsibility and desired responsibility for the remaining high-risk behaviours (with the exception of intervening into eating disorders). However, for these additional high-risk behaviours, school counsellors reported relatively low levels of current and desired responsibility. These numbers were especially low (in the $40 \%$ range) for sexual behaviour and drug-using behaviour. This raises issues regarding whose role it is to address these types of high-risk student behaviour.

A subset of school counsellors in this study indicated that addressing these issues was their role and that they had worked in these areas over the past 5 years. A large group reported that it was not their role, they did not address these activities, and they wanted relatively low levels of responsibility in these areas. This may suggest that other types of professionals need to be involved/trained, or school counsellors need more training/incentives to engage in this type of work.

Perhaps employing a wider systemic/community model of prevention, assessment, and intervention into certain high-risk behaviour could be of benefit, resulting in a higher degree of teamwork and reducing pressures that may be on some school counsellors who do not want to be as involved in these practice areas. It is important to note that current and desired responsibility levels were significantly higher for those participants who indicated having worked in these areas over the past 5 years. This pattern was observed for all high-risk behaviour dimensions. (There was one exception to this: participants with no work experience involving the assessment of bullying over the past 5 years reported a higher degree of current responsibility to prevent bullying compared to participants who had assessment work experience in this area, albeit the relationship was not statistically significant.)

As noted above, there were some significant differences in responsibility levels between those who had involvement working with students around high-risk issues and those having no involvement working with students around high-risk issues.

Thus, having work experience with a particular high-risk behaviour resulted in having a different perspective on responsibility level than those participants with no work experience in that area. Nevertheless, both groups of participants (those having had the work experience and those not having had the work experience) reported desiring less responsibility in preventing, assessing, and intervening into suicide as compared with their current responsibility levels.

Participants reporting no work experience over the past 5 years regarding suicide still reported relatively high levels of current responsibility to deal with student suicidal behaviours. Participants who had not worked in the prevention, assessment, or intervention of self-mutilation reported a desire to have increases in their responsibility level around prevention of this high-risk issue. This might suggest a desire for some participants to take on a more proactive role in dealing with this type of high-risk behaviour.

In the category of extreme school violence, an interesting pattern emerged: participants who had worked in the area of prevention, assessment, and intervention reported a desired increase in responsibility level, while those not working in this area desired less responsibility. This potentially suggests that some school counsellors are keenly interested in working in this area. In contrast, very few differences were noted between current and desired responsibility for addressing drug use for both of the participant groups, suggesting that this may not be an area of as much interest, compared to some of the other dimensions, for many of the school counsellors surveyed.

## Roles

Participants in the current study identified various roles they engaged in when addressing specific high-risk behaviour. Interestingly, few participants reported bringing the case to their team prior to taking action, transferring the case to someone in their discipline, or seeking supervision, especially in terms of dealing with suicide and self-mutilation. Participants' most frequent responses were in the areas of offering assessment and intervention, seeking consultation, and transferring the case to another type of professional. Participants often seemed to take an active front-line role with clients.

These results make sense given the nature of the issues in question: crises often necessitate initial action followed, in many instances, by consultation. For all of the high-risk behaviour dimensions, offering an assessment and intervention was a first choice. This may illustrate the position many school counsellors find themselves in. Importantly, most participants indicated that they were team leaders or active team members. Team work is likely occurring, but many participants may still be assessing and intervening alone or as first-line practitioners.

Fewer participants reported assessment and intervention activities around extreme school violence, as compared with the other high-risk behaviour dimensions, suggesting that fewer participants are dealing with these types of high-risk behaviour. In fact, all options tended to be endorsed fewer times in the extreme school violence category as compared with all other high-risk behaviour dimensions. Role
options in dealing with eating disorders, sexual behaviours, and drug use were also endorsed fewer times as compared to dealing with suicide, self-mutilation, and bullying, suggesting that fewer participants were dealing with (at least in terms of the options available) eating disorder, sexual behaviour, and drug use issues.

In line with this, several participants indicated case transfer options for eating disorders, sexual behaviour, and drug use behaviour. A number of participants indicated case consultation for the high-risk behaviour categories, which is quite encouraging. This would seem to suggest that many school counsellors in this study have colleagues to consult with when faced with difficult cases. This is in accord with ethical practice (e.g., the Canadian Counselling Association, the Canadian Psychological Association). It should also be noted that a very small subset of participants endorsed the "bystander" role in dealing with any of the high-risk behaviour categories, suggesting that the great majority of participants may become involved in addressing these behaviours if needed.

## FUTURE DIRECTIONS AND STUDY LIMITATIONS

The current study has elucidated several important findings and raised some important questions regarding school counsellors and high-risk student behaviour. School counsellors in this study noted their highest levels of preparation, motivation, and effectiveness in terms of dealing with student bullying. Future research could explore if this perception of preparation and effectiveness actually resulted in an enhanced ability to deal with said behaviour. Further exploring what makes school counsellors feel prepared, motivated, and effective in terms of the bullying dimension would also be useful.

School counsellors reported focusing less (along with less perceived preparation, motivation, and effectiveness) on sexual behaviour and drug use. This raises some important questions about which school professionals are doing the majority of work regarding these types of behaviours and what makes certain school counsellors so much more likely to work with these behaviours. It also raises the questions of what some school counsellors do when they are confronted with these types of issues and what the overall school approach is to addressing these types of issues.

Clearly, issues around school counsellors' role boundaries, and even role uncertainty, need to be examined. Another important focus in the current study was school counsellors' appreciation of theory. Future research could explore how school counsellors are encouraged to develop an appreciation of theoretical foundations regarding high-risk behaviour theories. Overall, a key message in the current study was around training needs and training availability. University programs can offer high-risk behaviour training as part of school counsellor and educational psychologist preparation.

The current results need to be treated cautiously. The current study had a relatively small sample size and focused on school counsellors' perceptions versus actual measures of ability or behaviour. Given the low response rate, it is possible that the characteristics of respondents differed from non-respondents.

There was also a high percentage of rural respondents; this was not necessarily unexpected, given the geographical reality of the population surveyed. In addition, high correlations between preparation, motivation, and effectiveness, although interesting, serve as a potential limitation (i.e., multicollinearity).

The authors also combined data from guidance counsellors and educational psychologists, which made sense for the purpose of the current article. In addition, there is some overlap in the roles and training of school counsellors and educational psychologists in this province. A small subset of participants indicated plus signs $(+)$ or greater than signs $(>)$ for the hours they spent in training or working. These numbers were treated as the number written, which could underestimate hours for a small number of the participants. An additional participant could not estimate the specific hours worked/trained, suggesting that this participant may have worked or received training but did not include the specific numbers.

## CONCLUDING THOUGHTS AND RECOMMENDATIONS

School counsellors play a central role in preventing, assessing, and intervening into student high-risk behaviour. Having said that, not all school counsellors perceive this type of work as part of their role or responsibility. Clearly, identifying school counsellors' comfort, desired responsibility, and preferred role(s) in terms of addressing student high-risk behaviour is a key dimension of defining employment expectations. In addition, the current study has illustrated that some school counsellors may have more motivation to prevent, assess, or intervene into student high-risk behaviour than they perceive they have preparation or effectiveness, again highlighting the importance of training availability. In light of the study's findings, the following recommendations are made regarding school counsellor education, school counselling services, and continuing education:

1. Should provide formal coursework and supervised experience through counsellor education programs in the area of high-risk behaviour prevention, assessment, and intervention
2. Should focus on applied skill, along with theory, including a rationale for the importance of theoretically informed practice, during training in the area of high-risk behaviour prevention, assessment, and intervention
3. The desired role of school counsellors should be explicitly clarified in terms of prevention, assessment, and intervention into student high-risk behaviour
4. A prevention, assessment, and intervention team, with various disciplinary members, including school counsellors and psychologists, should be developed to be involved in prevention, assessment, and intervention activities surrounding student high-risk behaviour
5. Focus on assessment and intervention is key, but given the importance of primary prevention with youth, prevention training and activities should be at least as important as assessment and intervention
6. School boards should make available continuing education courses in the areas of prevention, assessment, and intervention of high-risk behaviour.

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## References

Adelman, H. (1998). School counseling, psychological, and social services. In E. Marx \& S. Wooley (Eds.), Health is academia: A guide to coordinated school health programs (pp. 142-168). New York, NY: Teachers College.
Allen, M., Burt, K., Bryan, E., Carter, D., Orsi, R., \& Durkan, L. (2002). School counselor's preparation for and participation in crisis intervention. Professional School Counseling, 6, 96-102.
Bardick, A.D., Bernes, K., McCulloch, A., Witko, K., Spriddle, J., \& Roest, A. (2004). Eating disorder intervention, prevention and treatment: Recommendations for school counselors. Professional School Counseling, 8, 168-174.
Bauman, S. (2008). The role of elementary school counselors in reducing school bullying. Elementary School Counselor, 108, 362-375.
Beatch, R., Bedi, R., Cave, D., José, D., Harris, G.E., Haverkamp, B.E., ... Truscott, D. Counselling psychology in a Canadian context: Report from the executive committee for a Canadian understanding of counselling psychology. Retrieved from www.cpa.ca/.../counselling/CPA-CNPSY-ReportFinal\ nov\ 09.pdf
Bernes, K. B., \& Bardick, A. D. (2007). Conducting adolescent violence risk assessments: A framework for school counselors. Professional School Counseling, 10, 419-427.
Boes, S., Ng, V., \& Daviston, T. (2004). Unmasking eating disorders in the schools. Professional School Counseling, 7, 376-377.
Canada, M., Heath, M. A., Money, K., Annandale, N., Fischer, L., \& Young, E. L. (2007). Crisis intervention for students of diverse backgrounds: School counselors' concerns. Brief Treatment and Crisis Intervention, 7, 12-24.
Carney, J., \& Cobia, D. (2003). The concerns of school counselors-in-training about working with children and adolescents with HIV disease: Training implications. Counselor Education and Supervision, 42, 302-309.
Cobia, C., Carney, J., \& Waggoner, I. (1998). Children and adolescents with HIV disease: Implications for school counselors. Professional School Counseling, 1, 41-45.
Costin, A., Page, B., Pietrzak, D., \& Kerr, D. (2002). HIV/AIDS knowledge and beliefs among pre-service and in-service school counselors. Professional School Counseling, 6, 79-86.
Debski, J., Spadafore, C. D., Jacob, S., Poole, D. A, \& Hixson, M. D. (2007). Suicide intervention: Training, roles, and knowledge of school psychologists. Psychology in the Schools, 44, 157-170. doi:10.1002/pits. 20213
Furlong, M., Babinski, L., Poland, S., Munoz, J., \& Boles, S. (1996). Factors associated with school psychologists' perceptions of campus violence. Psychology in the Schools, 33, 28-37. doi:10.1002/ (SICI) 1520-6807(199601)33:1<28::AID-PITS4>3.0.CO;2-S
Furlong, M., Morrison, G., \& Pavelski, R. (2000). Trends in school psychology for the 21st century: Influences of school violence on professional change. Psychology in the Schools, 37, 81-90. doi:10.1002/(SICI) 1520-6807(200001)37:1<81::AID-PITS9>3.0.CO;2-O
Jacobsen, K. E., \& Bauman, S. (2007). Bullying in schools: School counselors' responses to three types of bullying incidents. Professional School Counseling, 11, 1-8.
King, K. A., Price, J. H., Telljohann, S., \& Wahl, J. (1999). How confident do high school counselors feel in recognizing students at risk for suicide? American Journal of Health Behavior, 23, 457-467.
King, K. A., Price, J. H., Telljohann, S., \& Wahl, J. (2000). Preventing adolescent suicide: Do high school counselors know the risk factors? Professional School Counseling, 3, 255-264.

King, K. A., \& Smith, J. (2000). Project SOAR: A training program to increase school counsellors' knowledge and confidence regarding suicide prevention and intervention. Journal of School Health, 70, 402-407. doi:10.1111/j.1746-1561.2000.tb07227.x
Lambie, G. W., \& Davis, K. M. (2007). Adolescent heroin abuse: Implications for the consulting professional school counselor. Journal of Professional Counseling: Practice, Theory, \& Research, 35, 1-17.
McAdams, C. R. III, \& Schmidt, C. D. (2007). How to help a bully: Recommendations for counseling the proactive aggressor. Professional School Counseling, 11, 120-128.
McFarland, W. P., \& Oliver, J. (1999). Empowering professional school counselors in the war against AIDS. Professional School Counseling, 2, 267-275.
Moyer, M., Haberstroh, S., \& Marbach, C. (2008). Self-injurious behaviors on the net: A survey of resources for school counselors. Professional School Counseling, 11, 277-284.
Nagel, L., Scherer, D. G., \& Lee, W. (2000). Adolescent health-compromising behaviors: Motivating school counselors. American Journal of Health Behavior, 24, 174-180.
Pate, R. H. (1992). Are you liable? American Counselor, 31, 116-118.
Peach, L., \& Reddick, T. L. (1991). Counselors can make a difference in preventing adolescent suicide. School Counselor, 39, 107-110.
Perusse, R., \& Goodnough, G. E. (2005). Elementary and secondary school counselors' perceptions of graduate preparation programs: A national study. Counselor Education and Supervision, 45, 109-118.
Popenhagen, M. P., \& Qualley, R. M. (1998). Adolescent suicide: Detection, intervention, and prevention. Professional School Counseling, 1, 30-36.
Public Health Agency of Canada. (2005). State of the HIV/AIDS pandemic. Retrieved from http:// www.phac-aspc.gc.ca
Sandhu, D. S. (2000). Foreword. Special issue: School violence and counselors. Professional School Counseling, 4, iv-v.
Schaefer-Schiumo, K., \& Ginsberg, A. P. (2003). The effectiveness of the warning signs program in educating youth about violence prevention: A study with urban high school students. Professional School Counseling, 7, 1-9.
Smaby, M. H., Peterson, T. L., Bergmann, P. E., Zenter Bacig, K., \& Swearingen, S. (1990). Schoolbased community intervention: The school counselor as lead consultant for suicide prevention and intervention programs. School Counselor, 37, 370-378.
Stevens-Smith, P., \& Remley, T. (1994). Drugs, AIDS, and teens: Intervention and the school counselor. School Counselor, 41, 180-185.
Strack, R., Vincent, M., Hussey, J., \& Kelly, K. (1998). Participant characteristics of a nonmandatory school and community-based sexual risk reduction program. Family and Community Health, 20, 63-70.
Watkins, K. E., Ellickson, P. L., Vaiana, E., \& Hiromoto, S. (2006). An update on adolescent drug use: What school counselors need to know. School Counseling, 10, 131-138.
Yager, Z., \& O'Dea, J. A. (2005). The role of teachers and other educators in the prevention of eating disorders and child obesity: What are the issues? Eating Disorders, 13, 261-278.

## About the Authors

Dr. Greg Harris is an assistant professor in the Faculty of Education at Memorial University (Counselling Psychology) and is cross appointed with the Department of Psychology and the University Counselling Centre. He is a Registered Psychologist in the province of Newfoundland and Labrador. His research has been predominantly in the area of HIV/AIDS.
Dr. Gary Jeffery is a recently retired professor from Memorial University, Faculty of Education, and a psychologist with interests in child learning in matters of child custody and access.
Address correspondence to Gregory E. Harris, Assistant Professor, Memorial University of Newfoundland, Faculty of Education, G.A. Hickman Building, St. John's, NL, Canada, A1B 3X8, e-mail gharris@mun.ca
Appendix A
Formal Training

| Means and standard deviations of hours actually involved in formal training (i.e., last 5 years) and frequency counts of school couns formal training (i.e., last 5 years) (i.e., yes/no) |  |  |  |
| :---: | :---: | :---: | :---: |
| High-risk behaviour | Prevention | Assessment | Intervention |
| Suicide attempts | M: 1.35 SD: 2.12 Yes: 24 No: 28 | M: 1.43 SD: 2.00 Yes: 26 No: 26 | M: 1.67 SD: 2.39 Yes: 27 No: 25 |
| Self-mutilation (e.g., cutting) | M: 1.02 SD: 1.32 Yes: 28 No: 24 | M: 1.18 SD: 1.36 Yes: 30 No: 22 | M: 1.40 SD: 1.58 Yes: 30 No: 22 |
| Bullying | M: 5.92 SD: 9.43 Yes: 41 No: 11 | M: 3.26 SD: 4.78 Yes: 36 No: 16 | M: 4.88 SD: 5.85 Yes: 40 No: 12 |
| Extreme school violence (e.g., school shootings, bombings) | M: 1.13 SD: 1.98 Yes: 22 No: 30 | M: 1.17 SD: 2.20 Yes: 21 No: 31 | M: 1.11 SD: 2.12 Yes: 20 No: 32 |
| Eating disorders and related behaviour (e.g., extreme exercising) | M: . 54 SD: 1.19 Yes: 19 No: 33 | M: .630 SD: 1.32 Yes: 20 No: 32 | M: . 54 SD: 1.36 Yes: 18 No: 34 |
| Sexual behaviours leading to risk of HIV or other STIs | M: .59 SD: 1.47 Yes: 18 No: 34 | M: . 29 SD: . 65 Yes: 16 No: 36 | M: . 29 SD: . 65 Yes: 17 No: 35 |
| Drug-using behaviours leading to risk of HIV or other STIs (e.g., IV drug use, needle sharing) | M: . 50 SD: 1.24 Yes: 15 No: 37 | M: . 43 SD: 1.15 Yes: 14 No: 38 | M: . 35 SD: 1.02 Yes: 13 No: 39 |
| Appendix B Self Training |  |  |  |
| Means and standard deviations of hours actually involved in self training (i.e., last 5 years) and frequency counts of school counsello training (i.e., last 5 years) (i.e., yes/no) |  |  |  |
| High-risk behaviour | Prevention | Assessment | Intervention |
| Suicide attempts | M: 4.09 SD: 4.14 Yes: 40 No: 12 | M: 3.31 SD: 3.53 Yes: $42 \mathrm{No:10}$ | M: 4.49 SD: 5.06 Yes: 41 No: 11 |
| Self-mutilation | M: 2.79 SD: 3.92 Yes: 32 No: 20 | M: 2.47 SD: 2.55 Yes: 36 No: 16 | M: 3.54 SD: 4.66 Yes: 38 No: 14 |
| Bullying | M: 13.67 SD: 17.12 Yes: 48 No: 4 | M: 10.72 SD: 16.84 Yes: 44 No: 8 | M: 20.94 SD: 46.23 Yes: 50 No: 2 |
| Extreme school violence | M: 3.93 SD: 5.67 Yes: 34 No:18 | M: 2.78 SD: 4.60 Yes: 29 No: 23 | M: 3.37 SD: 4.99 Yes: 32 No: 20 |
| Eating disorders and related behaviour | M: 3.02 SD: 5.23 Yes: 33 No: 19 | M: 3.16 SD: 5.35 Yes: 33 No: 19 | M: 3.89 SD: 6.62 Yes: 33 No: 19 |
| Sexual behaviours leading to risk of HIV or other STIs | M: 2.78 SD: 4.26 Yes: 27 No: 25 | M: 2.09 SD: 3.92 Yes: 23 No: 29 | M: 3.83 SD: 7.11 Yes: 28 No: 24 |
| Drug-using behaviours leading to risk of HIV or other STIs | M: 2.16 SD: 3.95 Yes: 24 No: 28 | M: 1.63 SD: 3.49 Yes: 20 No: 32 | M: 2.52 SD: 5.06 Yes: 22 No: 30 |

Appendix C
Involvement in Activities

| Means and standard deviations of hours actually involved in activities and frequency counts of school counsellors reporting hours involved in activities (i.e., no/yes) |  |  |  |
| :---: | :---: | :---: | :---: |
| High-risk behaviour | Prevention | Assessment | Intervention |
| Suicide attempts | M: 15.98 SD: 34.72 No: 10 Yes: 40 | M: 13.24 SD: 23.77 No: 11 Yes: 39 | M: 27.20 SD: 65.17 No: 13 Yes:37 |
| Self-mutilation | M: 10.84 SD: 30.16 No: 17 Yes: 33 | M: 10.56 SD: 30.16 No: 7 Yes:43 | M: 18.09 SD: 41.24 No: 9 Yes: 41 |
| Bullying | M: 79.91 SD: 118.81 No: 2 Yes: 48 | M: 75.84 SD: 184.42 No: 3 Yes: 47 | M: 180.91 SD: 619.91 No: 1 Yes: 49 |
| Extreme school violence | M: 7.24 SD: 20.78 No: 33 Yes: 17 | M: 4.48 SD: 16.69 No: 36 Yes: 14 | M: 6.11 SD: 17.19 No: 22 Yes: 28 |
| Eating disorders and related behaviour | M: 6.22 SD: 9.99 No: 22 Yes: 28 | M: 5.47 SD: 8.18 No: 18 Yes: 32 | M: 5.76 SD: 8.80 No: 23 Yes: 27 |
| Sexual behaviours leading to risk of HIV or other STIs | M: 13.18 SD: 25.76 No: 25 Yes: 25 | M: 9.89 SD: 20.17 No: 25 Yes: 25 | M: 10.24 SD: 19.89 No: 23 Yes: 27 |
| Drug-using behaviours leading to risk of HIV or other STIs | M: 6.84 SD: 15.76 No: 36 Yes: 14 | M: 3.36 SD: 10.41 No: 37 Yes: 13 | M: 4.04 SD: 12.79 No: 35 Yes: 15 |

## Appendix D Training Dimen

Means and standard deviations of training dimensions

| $S D$ |
| ---: |
| .913 |
| 1.109 |
| .759 |
| .778 |
| .782 |
| .890 |
| .896 |
| .753 |
| .852 |
| .866 |

Appendix E
Suicide (Prevention, Assessment, Intervention)

| 1, 4, 7: prevention; 2, 5, 8: assessment; 3, 6, 9: intervention |  |  |  |  | 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 3.65 | 1.03 | - | . 749 ** | .666** | . $407 * *$ | . 241 | .357* | . 783 ** | .704** | . $732^{* *}$ |
| 2 | 3.94 | . 83 |  |  | . $832{ }^{* *}$ | .488** | . $472^{* *}$ | .495** | .776** | .858** | .823** |
| 3 | 3.92 | . 76 |  |  | - | . 383 ** | . 370 ** | . 390 ** | . $654 * *$ | .679** | .818** |
| 4 | 4.18 | . 88 |  |  |  | - | . $925{ }^{* *}$ | .974** | . 553 ** | .636** | . $628^{* *}$ |
| 5 | 4.29 | . 71 |  |  |  |  | - | .961** | . 420 ** | . 541 ** | .567** |
| 6 | 4.22 | . 86 |  |  |  |  |  | - | .486** | .644** | .636** |
| 7 | 3.82 | . 87 |  |  |  |  |  |  | - | .813** | . 780 ** |
| 8 | 3.98 | . 74 |  |  |  |  |  |  |  | - | .885** |
| 9 | 3.98 | . 72 |  |  |  |  |  |  |  |  | - |
| Note. Motivated (prevention and intervention) categories are not normally distributed. |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Appendix F |  |  |  |  |  |  |  |  |  |  |  |
| Self Mutilation (Prevention, Assessment, Intervention) |  |  |  |  |  |  |  |  |  |  |  |
| 1, 4, 7: prevention; 2, 5, 8: assessment; 3, 6, 9: intervention 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |  |  |  |  |  |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 3.17 | . 90 | - | . $555{ }^{* *}$ | . $596{ }^{* *}$ | . $372^{* *}$ | . $362^{*}$ | . 363 * | .618** | . $506{ }^{* *}$ | . $521^{* *}$ |
| 2 | 3.52 | . 87 |  | - | .819** | . $534{ }^{* *}$ | .532** | . $525^{* *}$ | .252** | . 640 ** | . $436{ }^{* *}$ |
| 3 | 3.49 | . 78 |  |  | - | . $472{ }^{* *}$ | . $4722^{* *}$ | . 463 ** | . $288{ }^{*}$ | .618** | . $572^{* *}$ |
| 4 | 3.98 | . 88 |  |  |  | - | . 959 ** | . 973 ** | .437** | .641** | . 483 ** |
| 5 | 4.02 | . 88 |  |  |  |  | - | .987** | . $475{ }^{* *}$ | . $713{ }^{* *}$ | . 561 ** |
| 6 | 4.04 | . 87 |  |  |  |  |  | - | .449** | .703** | . $552^{* *}$ |
| 7 | 3.30 | . 93 |  |  |  |  |  |  | - | . $531 * *$ | . $5888^{* *}$ |
| 8 | 3.72 | . 83 |  |  |  |  |  |  |  | - | .811** |
| 9 | 3.60 | . 86 |  |  |  |  |  |  |  |  | - |

[^0]Appendix G
Bullying (Prevention, Assessment, Intervention)

| 1, 4, 7: prevention; 2, 5, 8: assessment; 3, 6, 9: intervention |  |  |  |  | 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 4.23 | . 67 | - | .791** | .713** | .475** | . $524 * *$ | . $513{ }^{* *}$ | . $598{ }^{* *}$ | . $552^{* *}$ | .437** |
| 2 | 4.31 | . 67 |  | - | . 630 ** | . $342^{* *}$ | .395** | .419** | .389** | .618** | . 197 |
| 3 | 4.25 | . 72 |  |  | - | . 270 | .318* | .377** | .361** | .487** | . $616{ }^{* *}$ |
| 4 | 4.42 | . 81 |  |  |  | - | . $954 * *$ | . $938{ }^{* *}$ | .335* | . $388{ }^{* *}$ | . 188 |
| 5 | 4.39 | . 80 |  |  |  |  | - | . 954 ** | .382** | . $4444^{* *}$ | . 224 |
| 6 | 4.41 | . 80 |  |  |  |  |  | - | .375** | .478** | . 254 |
| 7 | 4.16 | . 64 |  |  |  |  |  |  | - | .627** | .717** |
| 8 | 4.20 | . 57 |  |  |  |  |  |  |  | - | . 531 ** |
| 9 |  | . 76 |  |  |  |  |  |  |  |  | - |
| Note. Motivated (prevention, assessment, and intervention) categories are not normally distributed. Effective (intervention) category ${ }^{*}$ Correlation is significant at the 0.05 level (2-tailed) $\quad{ }^{* *}$ Correlation is significant at the 0.01 level (2-tailed) |  |  |  |  |  |  |  |  |  |  |  |
| Appendix H Extreme School Violence (Prevention, Assessment, Intervention) |  |  |  |  |  |  |  |  |  |  |  |
| 1, 4, 7: prevention; 2, 5, 8: assessment; 3, 6, 9: intervention |  |  |  |  | 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 2.77 | 1.08 | - | .837** | .826** | . $557{ }^{* *}$ | . $532 * *$ | . $495{ }^{* *}$ | .843** | .666** | .655** |
| 2 | 2.88 | 1.23 |  | - | . 889 ** | .636** | . $624 * *$ | . $588{ }^{* *}$ | .760** | .742** | . 693 ** |
| 3 | 2.79 | 1.18 |  |  | - | . $558{ }^{* *}$ | . $538{ }^{* *}$ | . 503 ** | . 757 ** | .757** | . $712^{* *}$ |
| 4 | 3.37 | 1.26 |  |  |  | - | . 959 ** | . $967{ }^{* *}$ | . $568{ }^{* *}$ | . $6000^{* *}$ | .596** |
| 5 | 3.46 | 1.16 |  |  |  |  | - | . $934^{* *}$ | $.541^{* *}$ | .591** | . 521 ** |
| 6 | 3.48 | 1.18 |  |  |  |  |  | - | . $503 * *$ | . $522^{* *}$ | . $516^{* *}$ |
| 7 | 2.86 | 1.13 |  |  |  |  |  |  |  | .840** | .821** |
| 8 | 2.92 | 1.15 |  |  |  |  |  |  |  | - | .835** |
| 9 | 2.82 | 1.07 |  |  |  |  |  |  |  |  | - |

[^1]Appendix I
Eating Disorders (Prevention, Assessment, Intervention)

| 1, 4, 7: prevention; $2,5,8$ assessment; 3, 6, 9: intervention |  |  |  |  | 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 3.06 | . 97 | - | . $747{ }^{* *}$ | .865** | . 211 | . 158 | . 158 | . $607^{* *}$ | . $548{ }^{* *}$ | . 613 ** |
| 2 | 3.20 | . 98 |  | - | .846** | .284* | . 253 | . 253 | . $507 * *$ | . $654^{* *}$ | .540** |
| 3 | 3.06 | 1.05 |  |  | - | . 240 | . 168 | . 190 | .617** | .579** | .641** |
| 4 | 3.84 | . 87 |  |  |  | - | . $921{ }^{* *}$ | .947** | .429** | . $4188^{* *}$ | . $374{ }^{* *}$ |
| 5 | 3.84 | . 89 |  |  |  |  | - | . $974{ }^{* *}$ | .327* | . 429 ** | .342* |
| 6 | 3.84 | . 89 |  |  |  |  |  | - | . 350 * | .407** | .319* |
| 7 | 2.94 | 1.02 |  |  |  |  |  |  | - | .775** | .898** |
| 8 | 3.20 | 1.05 |  |  |  |  |  |  |  | - | . 823 ** |
| 9 | 3.04 | 1.03 |  |  |  |  |  |  |  |  | - |
| * Correlation is significant at the 0.05 level (2-tailed) |  |  |  |  | ** Correlation is significant at the 0.01 level ( 2 -tailed) |  |  |  |  |  |  |
| Appendix J |  |  |  |  |  |  |  |  |  |  |  |
| Sexual Behaviour (Prevention, Assessment, Intervention) |  |  |  |  |  |  |  |  |  |  |  |
| 1, 4, 7: prevention; 2, 5, 8: assessment; 3, 6, 9: intervention |  |  |  |  | 1-3: Prepared; 4-6: Motivated; 7-9: Effective |  |  |  |  |  |  |
| Variable | M | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1 | 3.16 | 1.08 | - | . 957 ** | . $933{ }^{* *}$ | .451** | . $464^{* *}$ | . $466{ }^{* *}$ | .638** | .731** | . 683 ** |
| 2 | 3.18 | 1.07 |  | - | .941** | .429** | .441** | . 426 ** | .643** | .739** | .672** |
| 3 | 3.20 | 1.20 |  |  | - | . 392 ** | .403** | .406** | .590** | .686** | . $673^{* *}$ |
| 4 | 3.62 | 1.10 |  |  |  | - | . $984{ }^{* *}$ | .992** | .447** | . $471^{* *}$ | . $435{ }^{* *}$ |
| 5 | 3.66 | 1.20 |  |  |  |  | - | . $9922^{* *}$ | . $464 * *$ | . 490 ** | .468** |
| 6 | 3.64 | 1.10 |  |  |  |  |  | - | .446** | . $472^{* *}$ | . 451 ** |
| 7 | 3.12 | 1.00 |  |  |  |  |  |  | - | . $907^{* *}$ | .873** |
| 8 | 3.04 | 1.05 |  |  |  |  |  |  |  | - | . 965 ** |
| 9 | 3.08 | 1.08 |  |  |  |  |  |  |  |  | - |

[^2]Appendix K
Drug Use (Prevention, Assessment, Intervention)

| 1, 4, 7: prevention; 2 , 5 , $8:$ assessment; 3 , 6 , 9 : intervention |
| :--- |
| Variable |
| 1 |


| One-Way ANOVA (Hours vs no Hours) | Prep-Prev | Prep-Assess | Prep-Inter | Mot-Prev | Mot-Assess | Mot-Inter | Eff-Prev | Eff-Assess | Eff-Inter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sui-Assess | $\mathrm{F}=.057$ | $\mathrm{F}=3.817$ | $\mathrm{F}=6.044^{*}$ | $\mathrm{F}=.936$ | $\mathrm{F}=3.730$ | $\mathrm{F}=1.401$ | $\mathrm{F}=1.370$ | $\mathrm{F}=1.268$ | $\mathrm{F}=4.352^{*}$ |
|  | $\mathrm{M}_{1}=3.68$ | $\mathrm{M}_{1}=4.08$ | $\mathrm{M}_{1}=4.08$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=4.41$ | $\mathrm{M}_{1}=4.31$ | $\mathrm{M}_{1}=3.91$ | $\mathrm{M}_{1}=4.06$ | $\mathrm{M}_{1}=4.12$ |
|  | $\mathrm{M}_{0}=3.60$ | $\mathrm{M}_{0}=3.60$ | $\mathrm{M}_{0}=3.53$ | $\mathrm{M}_{0}=4.26$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=3.60$ | $\mathrm{M}_{0}=3.80$ | $\mathrm{M}_{0}=3.67$ |
|  | $\mathrm{SD}_{1}=.973$ | $\mathrm{SD}_{1}=.640$ | $\mathrm{SD}_{1}=.640$ | $\mathrm{SD}_{1}=.898$ | $\mathrm{SD}_{1}=.657$ | $\mathrm{SD}_{1}=.867$ | $\mathrm{SD}_{1}=.853$ | $\mathrm{SD}_{1}=.639$ | $\mathrm{SD}_{1}=.640$ |
|  | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.12$ | $\mathrm{SD}_{0}=.915$ | $\mathrm{SD}_{0}=.845$ | $\mathrm{SD}_{0}=.756$ | $\mathrm{SD}_{0}=.845$ | $\mathrm{SD}_{0}=.910$ | $\mathrm{SD}_{0}=.941$ | $\mathrm{SD}_{0}=.817$ |
| Sui-Inter | $\mathrm{F}=.024$ | $\mathrm{F}=1.605$ | $\mathrm{F}=2.925$ | $\mathrm{F}=.255$ | $\mathrm{F}=3.010$ | $\mathrm{F}=.477$ | $\mathrm{F}=.058$ | $\mathrm{F}=.101$ | $\mathrm{F}=1.521$ |
|  | $\mathrm{M}_{1}=3.64$ | $\mathrm{M}_{1}=4.03$ | $\mathrm{M}_{1}=4.03$ | $\mathrm{M}_{1}=4.22$ | $\mathrm{M}_{1}=4.39$ | $\mathrm{M}_{1}=4.27$ | $\mathrm{M}_{1}=3.84$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=4.06$ |
|  | $\mathrm{M}_{0}=3.69$ | $\mathrm{M}_{0}=3.69$ | $\mathrm{M}_{0}=3.62$ | $\mathrm{M}_{0}=4.08$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.08$ | $\mathrm{M}_{0}=3.77$ | $\mathrm{M}_{0}=3.92$ | $\mathrm{M}_{0}=3.77$ |
|  | $\mathrm{SD}_{1}=.932$ | $\mathrm{SD}_{1}=.668$ | $\mathrm{SD}_{1}=.623$ | $\mathrm{SD}_{1}=.898$ | $\mathrm{SD}_{1}=.645$ | $\mathrm{SD}_{1}=.871$ | $\mathrm{SD}_{1}=.834$ | $\mathrm{SD}_{1}=.667$ | $\mathrm{SD}_{1}=.630$ |
|  | $\mathrm{SD}_{0}=1.32$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.04$ | $\mathrm{SD}_{0}=.862$ | $\mathrm{SD}_{0}=.817$ | $\mathrm{SD}_{0}=.862$ | $\mathrm{SD}_{0}=.873$ | $\mathrm{SD}_{0}=.954$ | $\mathrm{SD}_{0}=.927$ |
| Self-Mut-Prev | $\mathrm{F}=10.644^{*}$ | $\mathrm{F}=3.216$ | $\mathrm{F}=4.090^{*}$ | $\mathrm{F}=1.427$ | $\mathrm{F}=1.281$ | $\mathrm{F}=.893$ | $\mathrm{F}=11.707^{* *}$ | $\mathrm{F}=3.685$ | $\mathrm{F}=8.348^{*}$ |
|  | $\mathrm{M}_{1}=3.47$ | $\mathrm{M}_{1}=3.69$ | $\mathrm{M}_{1}=3.66$ | $\mathrm{M}_{1}=4.10$ | $\mathrm{M}_{1}=4.14$ | $\mathrm{M}_{1}=4.14$ | $\mathrm{M}_{1}=3.63$ | $\mathrm{M}_{1}=3.90$ | $\mathrm{M}_{1}=3.87$ |
|  | $\mathrm{M}_{0}=2.70$ | $\mathrm{M}_{0}=3.25$ | $\mathrm{M}_{0}=3.21$ | $\mathrm{M}_{0}=3.80$ | $\mathrm{M}_{0}=3.85$ | $\mathrm{M}_{0}=3.90$ | $\mathrm{M}_{0}=2.80$ | $\mathrm{M}_{0}=3.45$ | $\mathrm{M}_{0}=3.20$ |
|  | $\mathrm{SD}_{1}=.842$ | $\mathrm{SD}_{1}=.780$ | $\mathrm{SD}_{1}=.787$ | $\mathrm{SD}_{1}=.772$ | $\mathrm{SD}_{1}=.743$ | $\mathrm{SD}_{1}=.743$ | $\mathrm{SD}_{1}=.765$ | $\mathrm{SD}_{1}=.662$ | $\mathrm{SD}_{1}=.629$ |
|  | $\mathrm{SD}_{0}=.801$ | $\mathrm{SD}_{0}=.967$ | $\mathrm{SD}_{0}=.713$ | $\mathrm{SD}_{0}=1.01$ | $\mathrm{SD}_{0}=1.04$ | $\mathrm{SD}_{0}=1.02$ | $\mathrm{SD}_{0}=.951$ | $\mathrm{SD}_{0}=.999$ | $\mathrm{SD}_{0}=.1 .01$ |
| Self-Mut-Assess | $\mathrm{F}=.930$ | $\mathrm{F}=1.697$ | $\mathrm{F}=1.202$ | $\mathrm{F}=.049$ | $\mathrm{F}=.209$ | $\mathrm{F}=.057$ | $\mathrm{F}=.987$ | $\mathrm{F}=.638$ | F= 3.444 |
|  | $\mathrm{M}_{1}=2.36$ | $\mathrm{M}_{1}=3.63$ | $\mathrm{M}_{1}=3.57$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=4.06$ | $\mathrm{M}_{1}=4.06$ | $\mathrm{M}_{1}=3.39$ | $\mathrm{M}_{1}=3.79$ | $\mathrm{M}_{1}=3.76$ |
|  | $\mathrm{M}_{0}=3.00$ | $\mathrm{M}_{0}=3.29$ | $\mathrm{M}_{0}=3.31$ | $\mathrm{M}_{0}=3.94$ | $\mathrm{M}_{0}=3.94$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=3.12$ | $\mathrm{M}_{0}=3.59$ | $\mathrm{M}_{0}=3.29$ |
|  | $\mathrm{SD}_{1}=1.01$ | $\mathrm{SD}_{1}=.843$ | $\mathrm{SD}_{1}=.850$ | $\mathrm{SD}_{1}=.916$ | $\mathrm{SD}_{1}=.876$ | $\mathrm{SD}_{1}=.878$ | $S D_{1}=.998$ | $\mathrm{SD}_{1}=.857$ | $\mathrm{SD}_{1}=.830$ |
|  | $\mathrm{SD}_{0}=.612$ | $\mathrm{SD}_{0}=.920$ | $\mathrm{SD}_{0}=.602$ | $\mathrm{SD}_{0}=.827$ | $\mathrm{SD}_{0}=.218$ | $\mathrm{SD}_{0}=.866$ | $\mathrm{SD}_{0}=.781$ | $\mathrm{SD}_{0}=.795$ | $\mathrm{SD}_{0}=.839$ |
| Self Mut-Inter | $\mathrm{F}=2.340$ | F= 3.156 | $\mathrm{F}=2.766$ | $\mathrm{F}=1.017$ | $\mathrm{F}=1.463$ | $\mathrm{F}=.894$ | $\mathrm{F}=1.008$ | $\mathrm{F}=2.954$ | $\mathrm{F}=7.396^{*}$ |
|  | $\mathrm{M}_{1}=3.28$ | $\mathrm{M}_{1}=3.64$ | $\mathrm{M}_{1}=3.59$ | $\mathrm{M}_{1}=4.06$ | $\mathrm{M}_{1}=4.11$ | $\mathrm{M}_{1}=4.11$ | $\mathrm{M}_{1}=3.38$ | $\mathrm{M}_{1}=3.84$ | $\mathrm{M}_{1}=3.78$ |
|  | $\mathrm{M}_{0}=2.85$ | $\mathrm{M}_{0}=3.15$ | $\mathrm{M}_{0}=3.17$ | $\mathrm{M}_{0}=3.77$ | $\mathrm{M}_{0}=3.77$ | $\mathrm{M}_{0}=3.85$ | $\mathrm{M}_{0}=3.08$ | $\mathrm{M}_{0}=3.38$ | $\mathrm{M}_{0}=3.08$ |
|  | $\mathrm{SD}_{1}=.972$ | $\mathrm{SD}_{1}=.843$ | $\mathrm{SD}_{1}=.818$ | $\mathrm{SD}_{1}=.924$ | $\mathrm{SD}_{1}=.887$ | $\mathrm{SD}_{1}=.887$ | $\mathrm{SD}_{1}=.982$ | $\mathrm{SD}_{1}=.834$ | $\mathrm{SD}_{1}=.787$ |
|  | $\mathrm{SD}_{0}=.555$ | $\mathrm{SD}_{0}=.899$ | $\mathrm{SD}_{0}=.577$ | $\mathrm{SD}_{0}=.725$ | $\mathrm{SD}_{0}=.832$ | $\mathrm{SD}_{0}=.801$ | $\mathrm{SD}_{0}=.760$ | $\mathrm{SD}_{0}=.768$ | $\mathrm{SD}_{0}=.862$ |


| One-Way ANOVA (Hours vs no Hours) | Prep-Prev | Prep-Assess | Prep-Inter | Mot-Prev | Mot-Assess | Mot-Inter | Eff-Prev | Eff-Assess | Eff-Inter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bull-Prev | $\mathrm{F}=.945$ | $\mathrm{F}=.257$ | $\mathrm{F}=1.027$ | $\mathrm{F}=.220$ | F= . 140 | $\mathrm{F}=.196$ | $\mathrm{F}=.476$ | $\mathrm{F}=.200$ | $\mathrm{F}=1.694$ |
|  | $\mathrm{M}_{1}=4.267$ | $\mathrm{M}_{1}=4.29$ | $\mathrm{M}_{1}=4.30$ | $\mathrm{M}_{1}=4.44$ | $\mathrm{M}_{1}=4.41$ | $\mathrm{M}_{1}=4.43$ | $\mathrm{M}_{1}=4.18$ | $\mathrm{M}_{1}=4.18$ | $\mathrm{M}_{1}=4.11$ |
|  | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.43$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.29$ | $\mathrm{M}_{0}=4.28$ | $\mathrm{M}_{0}=4.29$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.29$ | $\mathrm{M}_{0}=3.71$ |
|  | $\mathrm{SD}_{1}=.654$ | $\mathrm{SD}_{1}=.695$ | $\mathrm{SD}_{1}=.668$ | $\mathrm{SD}_{1}=.825$ | $\mathrm{SD}_{1}=.816$ | $\mathrm{SD}_{1}=.818$ | $\mathrm{SD}_{1}=.620$ | $\mathrm{SD}_{1}=.582$ | $\mathrm{SD}_{1}=.618$ |
|  | $\mathrm{SD}_{0}=.817$ | $\mathrm{SD}_{0}=.535$ | $\mathrm{SD}_{0}=1.00$ | $\mathrm{SD}_{0}=.756$ | $\mathrm{SD}_{0}=.756$ | $\mathrm{SD}_{0}=.756$ | $\mathrm{SD}_{0}=.817$ | $\mathrm{SD}_{0}=.488$ | $\mathrm{SD}_{0}=1.38$ |
| Bull-Assess | $\mathrm{F}=.248$ | $\mathrm{F}=.445$ | $\mathrm{F}=.129$ | $\mathrm{F}=.010$ | $\mathrm{F}=.046$ | $\mathrm{F}=.102$ | $\mathrm{F}=.644$ | $\mathrm{F}=.637$ | $\mathrm{F}=.542$ |
|  | $\mathrm{M}_{1}=4.21$ | $\mathrm{M}_{1}=4.28$ | $\mathrm{M}_{1}=4.24$ | $\mathrm{M}_{1}=4.41$ | $\mathrm{M}_{1}=4.38$ | $\mathrm{M}_{1}=4.43$ | $\mathrm{M}_{1}=4.19$ | $\mathrm{M}_{1}=4.17$ | $\mathrm{M}_{1}=4.10$ |
|  | $\mathrm{M}_{0}=4.33$ | $\mathrm{M}_{0}=4.44$ | $\mathrm{M}_{0}=4.33$ | $\mathrm{M}_{0}=4.44$ | $\mathrm{M}_{0}=4.44$ | $\mathrm{M}_{0}=4.33$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.33$ | $\mathrm{M}_{0}=3.89$ |
|  | $\mathrm{SD}_{1}=.675$ | $\mathrm{SD}_{1}=.666$ | $\mathrm{SD}_{1}=.726$ | $\mathrm{SD}_{1}=.836$ | $\mathrm{SD}_{1}=.825$ | $\mathrm{SD}_{1}=.866$ | $\mathrm{SD}_{1}=.552$ | $\mathrm{SD}_{1}=.537$ |  |
|  | $\mathrm{SD}_{0}=.675$ | $\mathrm{SD}_{0}=.726$ | $\mathrm{SD}_{0}=.707$ | $\mathrm{SD}_{0}=.726$ | $\mathrm{SD}_{0}=.726$ | $\mathrm{SD}_{0}=.801$ | $\mathrm{SD}_{0}=1.00$ | $\mathrm{SD}_{0}$. $=.707$ | $\mathrm{SD}_{0}=.928$ |
| Bull-Inter | $\mathrm{F}=2.312$ | $\mathrm{F}=1.161$ | $\mathrm{F}=.697$ | $\mathrm{F}=1.508$ | $\mathrm{F}=1.334$ | $\mathrm{F}=1.466$ | $\mathrm{F}=.324$ | $\mathrm{F}=.000$ | $\mathrm{F}=.189$ |
|  | $\mathrm{M}_{1}=4.28$ | $\mathrm{M}_{1}=4.34$ | $\mathrm{M}_{1}=4.28$ | $\mathrm{M}_{1}=4.47$ | $\mathrm{M}_{1}=4.43$ | $\mathrm{M}_{1}=4.46$ | $\mathrm{M}_{1}=4.17$ | $\mathrm{M}_{1}=4.20$ | $\mathrm{M}_{1}=4.04$ |
|  | $\mathrm{M}_{0}=3.80$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.00$ | $\mathrm{M}_{0}=4.20$ | $\mathrm{M}_{0}=4.20$ |
|  | $\mathrm{SD}_{1}=.649$ | $\mathrm{SD}_{1}=.668$ | $\mathrm{SD}_{1}=.720$ | $\mathrm{SD}_{1}=.786$ | $\mathrm{SD}_{1}=.779$ | $\mathrm{SD}_{1}=.781$ | $\mathrm{SD}_{1}=.643$ | $\mathrm{SD}_{1}=.582$ | $\mathrm{SD}_{1}=.788$ |
|  | $\mathrm{SD}_{0}=.837$ | $\mathrm{SD}_{0}=.707$ | $\mathrm{SD}_{0}=.707$ | $\mathrm{SD}_{0}=1.00$ | $\mathrm{SD}_{0}=1.00$ | $\mathrm{SD}_{0}=1.00$ | $\mathrm{SD}_{0}=.707$ | $\mathrm{SD}_{0 .}=.447$ | $\mathrm{SD}_{0}=.447$ |
| ExVio-Prev | $\mathrm{F}=7.033^{*}$ | $\mathrm{F}=4.984^{*}$ | $\mathrm{F}=6.677^{*}$ | $\mathrm{F}=.578$ | $\mathrm{F}=.469$ | $\mathrm{F}=.113$ | $\mathrm{F}=3.963$ | $\mathrm{F}=1.279$ | $\mathrm{F}=.751$ |
|  | $\mathrm{M}_{1}=3.26$ | $\mathrm{M}_{1}=3.37$ | $\mathrm{M}_{1}=3.32$ | $\mathrm{M}_{1}=3.56$ | $\mathrm{M}_{1}=3.61$ | $\mathrm{M}_{1}=3.56$ | $\mathrm{M}_{1}=3.28$ | $\mathrm{M}_{1}=3.17$ | $\mathrm{M}_{1}=3.00$ |
|  | $\mathrm{M}_{0}=2.48$ | $\mathrm{M}_{0}=2.61$ | $\mathrm{M}_{0}=2.48$ | $\mathrm{M}_{0}=3.27$ | $\mathrm{M}_{0}=3.38$ | $\mathrm{M}_{0}=3.44$ | $\mathrm{M}_{0}=2.64$ | $\mathrm{M}_{0}=2.79$ | $\mathrm{M}_{0}=2.73$ |
|  | $\mathrm{SD}_{1}=.872$ | $\mathrm{SD}_{1}=1.01$ | $\mathrm{SD}_{1}=1.00$ | $\mathrm{SD}_{1}=1.10$ | $\mathrm{SD}_{1}=.850$ | $\mathrm{SD}_{1}=1.10$ | $\mathrm{SD}_{1}=1.07$ | $\mathrm{SD}_{1}=.924$ | $\mathrm{SD}_{1}=1.03$ |
|  | $\mathrm{SD}_{0}=1.09$ | $\mathrm{SD}_{0}=1.27$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.35$ | $\mathrm{SD}_{0}=1.31$ | $\mathrm{SD}_{0}=1.24$ | $\mathrm{SD}_{0}=1.11$ | $\mathrm{SD}_{0}=1.24$ | $\mathrm{SD}_{0}=1.10$ |
| ExVio-Assess | $\mathrm{F}=13.675^{*}$ | $\mathrm{F}=16.445 * *$ | $\mathrm{F}=14.989^{* *}$ | $\mathrm{F}=5.012^{*}$ | $\mathrm{F}=5.296 *$ | $\mathrm{F}=3.539$ | $\mathrm{F}=10.495^{*}$ | $\mathrm{F}=6.416^{*}$ | $\mathrm{F}=4.089^{*}$ |
|  | $\mathrm{M}_{1}=3.42$ | $\mathrm{M}_{1}=3.68$ | $\mathrm{M}_{1}=3.53$ | $\mathrm{M}_{1}=3.89$ | $\mathrm{M}_{1}=3.94$ | $\mathrm{M}_{1}=3.89$ | $\mathrm{M}_{1}=3.50$ | $\mathrm{M}_{1}=3.44$ | $\mathrm{M}_{1}=3.22$ |
|  | $\mathrm{M}_{0}=2.39$ | $\mathrm{M}_{0}=2.42$ | $\mathrm{M}_{0}=2.36$ | $\mathrm{M}_{0}=3.09$ | $\mathrm{M}_{0}=3.19$ | $\mathrm{M}_{0}=3.25$ | $\mathrm{M}_{0}=2.52$ | $\mathrm{M}_{0}=2.64$ | $\mathrm{M}_{0}=2.61$ |
|  | $\mathrm{SD}_{1}=.769$ | $\mathrm{SD}_{1}=.946$ | $\mathrm{SD}_{1}=1.02$ | $\mathrm{SD}_{1}=.963$ | $\mathrm{SD}_{1}=.639$ | $\mathrm{SD}_{1}=.963$ | $\mathrm{SD}_{1}=.857$ | $\mathrm{SD}_{1}=.616$ | $\mathrm{SD}_{1}=.878$ |
|  | $\mathrm{SD}_{0}=1.006$ | $\mathrm{SD}_{0}=1.15$ | $\mathrm{SD}_{0}=1.06$ | $\mathrm{SD}_{0}=1.33$ | $\mathrm{SD}_{0}=1.31$ | $\mathrm{SD}_{0}=1.24$ | $\mathrm{SD}_{0}=1.12$ | $\mathrm{SD}_{0}=1.27$ | $\mathrm{SD}_{0}=1.12$ |


| One-Way ANOVA (Hours vs no Hours) | Prep-Prev | Prep-Assess | Prep-Inter | Mot-Prev | Mot-Assess | Mot-Inter | Eff-Prev | Eff-Assess | Eff-Inter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ExVio-Inter | $\mathrm{F}=6.154^{*}$ | $\mathrm{F}=7.849^{*}$ | $\mathrm{F}=8.921^{*}$ | $\mathrm{F}=1.367$ | $\mathrm{F}=1.144$ | $\mathrm{F}=.496$ | $\mathrm{F}=4.17{ }^{*}$ | $\mathrm{F}=1.340$ | $\mathrm{F}=.968$ |
|  | $\mathrm{M}_{1}=3.18$ | $\mathrm{M}_{1}=3.41$ | $\mathrm{M}_{1}=3.32$ | $\mathrm{M}_{1}=3.62$ | $\mathrm{M}_{1}=3.67$ | $\mathrm{M}_{1}=3.62$ | $\mathrm{M}_{1}=3.24$ | $\mathrm{M}_{1}=3.14$ | $\mathrm{M}_{1}=3.00$ |
|  | $\mathrm{M}_{0}=2.47$ | $\mathrm{M}_{0}=2.50$ | $\mathrm{M}_{0}=2.40$ | $\mathrm{M}_{0}=3.20$ | $\mathrm{M}_{0}=3.31$ | $\mathrm{M}_{0}=3.38$ | $\mathrm{M}_{0}=2.60$ | $\mathrm{M}_{0}=2.77$ | $\mathrm{M}_{0}=2.70$ |
|  | $\mathrm{SD}_{1}=.958$ | $\mathrm{SD}_{1}=1.10$ | $\mathrm{SD}_{1}=1.13$ | $\mathrm{SD}_{1}=1.16$ | $\mathrm{SD}_{1}=.966$ | $\mathrm{SD}_{1}=1.16$ | $\mathrm{SD}_{1}=.238$ | $\mathrm{SD}_{1}=.964$ | $\mathrm{SD}_{1}=1.05$ |
|  | $\mathrm{SD}_{0}=1.07$ | $\mathrm{SD}_{0}=1.20$ | $\mathrm{SD}_{0}=1.07$ | $\mathrm{SD}_{0}=1.32$ | $\mathrm{SD}_{0}=1.28$ | $\mathrm{SD}_{0}=1.21$ | $\mathrm{SD}_{0}=.201$ | $\mathrm{SD}_{0}=1.25$ | $\mathrm{SD}_{0}=1.09$ |
| Eat-Prev | $\mathrm{F}=2.462$ | $\mathrm{F}=2.416$ | $\mathrm{F}=2.088$ | $\mathrm{F}=2.228$ | $\mathrm{F}=.627$ | $\mathrm{F}=.627$ | $\mathrm{F}=8.448^{*}$ | $\mathrm{F}=4.305^{*}$ | $\mathrm{F}=13.589^{* *}$ |
|  | $\mathrm{M}_{1}=3.24$ | $\mathrm{M}_{1}=3.38$ | $\mathrm{M}_{1}=3.24$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=3.93$ | $\mathrm{M}_{1}=3.93$ | $\mathrm{M}_{1}=3.29$ | $\mathrm{M}_{1}=3.46$ | $\mathrm{M}_{1}=3.46$ |
|  | $\mathrm{M}_{0}=2.82$ | $\mathrm{M}_{0}=2.95$ | $\mathrm{M}_{0}=2.82$ | $\mathrm{M}_{0}=3.64$ | $\mathrm{M}_{0}=3.73$ | $\mathrm{M}_{0}=3.73$ | $\mathrm{M}_{0}=2.50$ | $\mathrm{M}_{0}=2.86$ | $\mathrm{M}_{0}=2.50$ |
|  | $\mathrm{SD}_{1}=.872$ | $\mathrm{SD}_{1}=.942$ | $\mathrm{SD}_{1}=.988$ | $\mathrm{SD}_{1}=.861$ | $\mathrm{SD}_{1}=.856$ | $\mathrm{SD}_{1}=.858$ | $\mathrm{SD}_{1}=.810$ | $\mathrm{SD}_{1}=.793$ | $\mathrm{SD}_{1}=.744$ |
|  | $\mathrm{SD}_{0}=1.05$ | $\mathrm{SD}_{0}=.999$ | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=.847$ | $\mathrm{SD}_{0}=.935$ | $\mathrm{SD}_{0}=.935$ | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=1.25$ | $\mathrm{SD}_{0}=1.10$ |
| Eat-Assess | $\mathrm{F}=.119$ | $\mathrm{F}=.312$ | $\mathrm{F}=.002$ | $\mathrm{F}=1.626$ | $\mathrm{F}=.337$ | $\mathrm{F}=.337$ | $\mathrm{F}=1.164$ | $\mathrm{F}=.676$ | $\mathrm{F}=1.139$ |
|  | $\mathrm{M}_{1}=3.10$ | $\mathrm{M}_{1}=3.26$ | $\mathrm{M}_{1}=3.06$ | $\mathrm{M}_{1}=3.97$ | $\mathrm{M}_{1}=3.90$ | $\mathrm{M}_{1}=3.90$ | $\mathrm{M}_{1}=3.07$ | $\mathrm{M}_{1}=3.30$ | $\mathrm{M}_{1}=3.17$ |
|  | $\mathrm{M}_{0}=3.00$ | $\mathrm{M}_{0}=3.10$ | $\mathrm{M}_{0}=3.05$ | $\mathrm{M}_{0}=3.65$ | $\mathrm{M}_{0}=3.75$ | $\mathrm{M}_{0}=3.75$ | $\mathrm{M}_{0}=2.75$ | $\mathrm{M}_{0}=3.05$ | $\mathrm{M}_{0}=2.85$ |
|  | $\mathrm{SD}_{1}=.978$ | $\mathrm{SD}_{1}=.999$ | $\mathrm{SD}_{1}=1.09$ | $\mathrm{SD}_{1}=.890$ | $\mathrm{SD}_{1}=.885$ | $\mathrm{SD}_{1}=.885$ | $\mathrm{SD}_{1}=1.05$ | $\mathrm{SD}_{1}=.988$ | $\mathrm{SD}_{1}=.986$ |
|  | $\mathrm{SD}_{0}=.973$ | $\mathrm{SD}_{0}=.968$ | $\mathrm{SD}_{0}=.999$ | $\mathrm{SD}_{0}=.813$ | $\mathrm{SD}_{0}=.910$ | $\mathrm{SD}_{0}=.910$ | $\mathrm{SD}_{0}=.967$ | $\mathrm{SD}_{0}=1.15$ | $\mathrm{SD}_{0}=1.09$ |
| Eat-Inter | $\mathrm{F}=.005$ | $\mathrm{F}=.373$ | $\mathrm{F}=.042$ | $\mathrm{F}=1.465$ | $\mathrm{F}=.275$ | $\mathrm{F}=.275$ | $\mathrm{F}=1.110$ | $\mathrm{F}=.759$ | $\mathrm{F}=1.146$ |
|  | $\mathrm{M}_{1}=3.07$ | $\mathrm{M}_{1}=3.27$ | $\mathrm{M}_{1}=3.03$ | $\mathrm{M}_{1}=3.97$ | $\mathrm{M}_{1}=3.90$ | $\mathrm{M}_{1}=3.90$ | $\mathrm{M}_{1}=3.07$ | $\mathrm{M}_{1}=3.31$ | $\mathrm{M}_{1}=3.17$ |
|  | $M_{0}=3.05$ | $\mathrm{M}_{0}=3.10$ | $\mathrm{M}_{0}=3.10$ | $\mathrm{M}_{0}=3.67$ | $\mathrm{M}_{0}=3.76$ | $\mathrm{M}_{0}=3.76$ | $\mathrm{M}_{0}=2.76$ | $\mathrm{M}_{0}=3.05$ | $\mathrm{M}_{0}=2.86$ |
|  | $\mathrm{SD}_{1}=.980$ | $\mathrm{SD}_{1}=1.01$ | $\mathrm{SD}_{1}=1.10$ | $\mathrm{SD}_{1}=.906$ | $\mathrm{SD}_{1}=.900$ | $\mathrm{SD}_{1}=.900$ | $\mathrm{SD}_{1}=1.07$ | $\mathrm{SD}_{1}=1.00$ | $\mathrm{SD}_{1}=1.00$ |
|  | $\mathrm{SD}_{0}=.973$ | $\mathrm{SD}_{0}=.944$ | $\mathrm{SD}_{0}=.995$ | $\mathrm{SD}_{0}=.796$ | $\mathrm{SD}_{0}=.889$ | $\mathrm{SD}_{0}=.889$ | $\mathrm{SD}_{0}=.943$ | $\mathrm{SD}_{0}=1.12$ | $\mathrm{SD}_{0}=1.03$ |
| Sex-Prev | $\mathrm{F}=17.642^{* *}$ | $\mathrm{F}=16.538^{* *}$ | $\mathrm{F}=20.790^{* *}$ | $\mathrm{F}=7.638^{* *}$ | $\mathrm{F}=9.728^{*}$ | $\mathrm{F}=8.631^{*}$ | $\mathrm{F}=7.507^{*}$ | $\mathrm{F}=8.457^{*}$ | $\mathrm{F}=9.869^{*}$ |
|  | $\mathrm{M}_{1}=3.72$ | $M_{1}=3.72$ | $\mathrm{M}_{1}=3.80$ | $\mathrm{M}_{1}=4.04$ | $\mathrm{M}_{1}=4.13$ | $\mathrm{M}_{1}=4.08$ | $\mathrm{M}_{1}=3.50$ | $\mathrm{M}_{1}=3.46$ | $\mathrm{M}_{1}=3.54$ |
|  | $\mathrm{M}_{0}=2.62$ | $M_{0}=2.65$ | $\mathrm{M}_{0}=2.62$ | $\mathrm{M}_{0}=3.23$ | $\mathrm{M}_{0}=3.23$ | $\mathrm{M}_{0}=3.23$ | $\mathrm{M}_{0}=2.77$ | $\mathrm{M}_{0}=2.65$ | $\mathrm{M}_{0}=2.65$ |
|  | $\mathrm{SD}_{1}=.737$ | $\mathrm{SD}_{1}=.737$ | $\mathrm{SD}_{1}=.707$ | $\mathrm{SD}_{1}=.859$ | $\mathrm{SD}_{1}=.797$ | $\mathrm{SD}_{1}=.830$ | $\mathrm{SD}_{1}=.659$ | $\mathrm{SD}_{1}=.721$ | $\mathrm{SD}_{1}=.779$ |
|  | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.14$ | $\mathrm{SD}_{0}=1.16$ | $\mathrm{SD}_{0}=1.16$ |


| One-Way ANOVA (Hours vs no Hours) | Prep-Prev | Prep-Assess | Prep-Inter | Mot-Prev | Mot-Assess | Mot-Inter | Eff-Prev | Eff-Assess | Eff-Inter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sex-Assess | $\mathrm{F}=8.000^{*}$ | $\mathrm{F}=9.254^{*}$ | $\mathrm{F}=9.838^{*}$ | $\mathrm{F}=7.032^{*}$ | $\mathrm{F}=7.243^{*}$ | $\mathrm{F}=6.329^{*}$ | $\mathrm{F}=4.496^{*}$ | $\mathrm{F}=5.185^{*}$ | $\mathrm{F}=4.919^{*}$ |
|  | $\mathrm{M}_{1}=3.58$ | $\mathrm{M}_{1}=3.63$ | $\mathrm{M}_{1}=3.67$ | $\mathrm{M}_{1}=4.04$ | $\mathrm{M}_{1}=4.09$ | $\mathrm{M}_{1}=4.04$ | $\mathrm{M}_{1}=3.43$ | $\mathrm{M}_{1}=3.39$ | $\mathrm{M}_{1}=3.43$ |
|  | $\mathrm{M}_{0}=2.78$ | $\mathrm{M}_{0}=2.78$ | $\mathrm{M}_{0}=2.78$ | $\mathrm{M}_{0}=3.26$ | $\mathrm{M}_{0}=3.30$ | $\mathrm{M}_{0}=3.30$ | $\mathrm{M}_{0}=2.85$ | $\mathrm{M}_{0}=2.74$ | $\mathrm{M}_{0}=2.78$ |
|  | $\mathrm{SD}_{1}=.929$ | $\mathrm{SD}_{1}=.924$ | $\mathrm{SD}_{1}=.917$ | $\mathrm{SD}_{1}=.878$ | $\mathrm{SD}_{1}=.848$ | $\mathrm{SD}_{1}=.880$ | $\mathrm{SD}_{1}=.728$ | $\mathrm{SD}_{1}=.783$ | $\mathrm{SD}_{1}=.843$ |
|  | $\mathrm{SD}_{0}=1.09$ | $\mathrm{SD}_{0}=1.05$ | $\mathrm{SD}_{0}=1.09$ | $\mathrm{SD}_{0}=1.16$ | $\mathrm{SD}_{0}=1.17$ | $\mathrm{SD}_{0}=1.17$ | $\mathrm{SD}_{0}=1.14$ | $\mathrm{SD}_{0}=1.16$ | $\mathrm{SD}_{0}=1.19$ |
| Sex-Inter | $\mathrm{F}=8.349^{*}$ | $\mathrm{F}=9.691^{*}$ | $\mathrm{F}=10.332^{*}$ | $\mathrm{F}=8.188^{*}$ | $\mathrm{F}=8.506^{*}$ | $\mathrm{F}=7.440^{*}$ | $\mathrm{F}=10.308^{*}$ | $\mathrm{F}=10.97$ * | $\mathrm{F}=12.832^{* *}$ |
|  | $\mathrm{M}_{1}=3.61$ | $\mathrm{M}_{1}=3.65$ | $\mathrm{M}_{1}=3.70$ | $M_{1}=4.09$ | $\mathrm{M}_{1}=4.14$ | $\mathrm{M}_{1}=4.09$ | $\mathrm{M}_{1}=3.59$ | $\mathrm{M}_{1}=3.55$ | $\mathrm{M}_{1}=3.64$ |
|  | $\mathrm{M}_{0}=2.79$ | $\mathrm{M}_{0}=2.79$ | $\mathrm{M}_{0}=2.79$ | $\mathrm{M}_{0}=3.2$ | $\mathrm{M}_{0}=3.29$ | $\mathrm{M}_{0}=3.29$ | $\mathrm{M}_{0}=2.75$ | $\mathrm{M}_{0}=2.64$ | $\mathrm{M}_{0}=2.64$ |
|  | $\mathrm{SD}_{1}=.656$ | $\mathrm{SD}_{1}=.647$ | $\mathrm{SD}_{1}=.635$ | $\mathrm{SD}_{1}=.811$ | $\mathrm{SD}_{1}=.774$ | $\mathrm{SD}_{1}=.811$ | $\mathrm{SD}_{1}=.666$ | $\mathrm{SD}_{1}=.739$ | $\mathrm{SD}_{1}=.727$ |
|  | $\mathrm{SD}_{0}=1.23$ | $\mathrm{SD}_{0}=1.20$ | $\mathrm{SD}_{0}=1.23$ | $\mathrm{SD}_{0}=1.17$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.18$ | $\mathrm{SD}_{0}=1.08$ | $\mathrm{SD}_{0}=1.10$ | $\mathrm{SD}_{0}=1.13$ |
| Drug-Prev | $\mathrm{F}=11.519^{* *}$ | $\mathrm{F}=10.152^{*}$ | $\mathrm{F}=9.103^{*}$ | $\mathrm{F}=6.102^{*}$ | $\mathrm{F}=5.454^{*}$ | $\mathrm{F}=5.163^{*}$ | $\mathrm{F}=6.565^{*}$ | $\mathrm{F}=9.561^{*}$ | $\mathrm{F}=7.423^{*}$ |
|  | $\mathrm{M}_{1}=3.47$ | $\mathrm{M}_{1}=3.41$ | $\mathrm{M}_{1}=3.35$ | $M_{1}=4.00$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=3.94$ | $\mathrm{M}_{1}=3.44$ | $\mathrm{M}_{1}=3.50$ | $\mathrm{M}_{1}=3.44$ |
|  | $\mathrm{M}_{0}=2.53$ | $\mathrm{M}_{0}=2.53$ | $\mathrm{M}_{0}=2.50$ | $\mathrm{M}_{0}=3.15$ | $\mathrm{M}_{0}=3.18$ | $\mathrm{M}_{0}=3.15$ | $\mathrm{M}_{0}=2.65$ | $\mathrm{M}_{0}=2.56$ | $\mathrm{M}_{0}^{1}=2.56$ |
|  | $\mathrm{SD}_{1}=.717$ | $\mathrm{SD}_{1}=.795$ | $\mathrm{SD}_{1}=.786$ | $\mathrm{SD}_{1}=.632$ | $\mathrm{SD}_{1}=.632$ | $\mathrm{SD}_{1}=.680$ | $\mathrm{SD}_{1}=.727$ | $\mathrm{SD}_{1}=.632$ | $\mathrm{SD}_{1}=.727$ |
|  | $\mathrm{SD}_{0}=1.02$ | $\mathrm{SD}_{0}=.992$ | $\mathrm{SD}_{0}=1.02$ | $\mathrm{SD}_{0}=1.31$ | $\mathrm{SD}_{0}=1.34$ | $\mathrm{SD}_{0}=1.31$ | $\mathrm{SD}_{0}=1.12$ | $\mathrm{SD}_{0}=1.13$ | $\mathrm{SD}_{0}=1.19$ |
| Drug-Assess | $\mathrm{F}=7.096^{*}$ | $\mathrm{F}=5.861$ * | $\mathrm{F}=4.894^{*}$ | $\mathrm{F}=2.820$ | $\mathrm{F}=3.528$ | $\mathrm{F}=3.075$ | $\mathrm{F}=2.658$ | $\mathrm{F}=4.421^{*}$ | $\mathrm{F}=3.133$ |
|  | $\mathrm{M}_{1}=3.46$ | $\mathrm{M}_{1}=3.38$ | $\mathrm{M}_{1}=3.31$ | $\mathrm{M}_{1}=3.92$ | $\mathrm{M}_{1}=4.00$ | $\mathrm{M}_{1}=3.92$ | $\mathrm{M}_{1}=3.33$ | $\mathrm{M}_{1}=3.42$ | $\mathrm{M}_{1}=3.33$ |
|  | $\mathrm{M}_{0}=2.63$ | $\mathrm{M}_{0}=2.63$ | $\mathrm{M}_{0}=2.61$ | $M_{0}=3.26$ | $\mathrm{M}_{0}=3.26$ | $\mathrm{M}_{0}=3.24$ | $\mathrm{M}_{0}=2.76$ | $\mathrm{M}_{0}=2.68$ | $\mathrm{M}_{0}=2.68$ |
|  | $\mathrm{SD}_{1}=.660$ | $\mathrm{SD}_{1}=.768$ | $\mathrm{SD}_{1}=.751$ | $\mathrm{SD}_{1}=.669$ | $\mathrm{SD}_{1}=.603$ | $\mathrm{SD}_{1}=.669$ | $\mathrm{SD}_{1}=.779$ | $\mathrm{SD}_{1}=.669$ | $\mathrm{SD}_{1}=.779$ |
|  | $\mathrm{SD}_{0}=1.05$ | $\mathrm{SD}_{0}=1.02$ | $\mathrm{SD}_{0}=1.05$ | $\mathrm{SD}_{0}=1.29$ | $\mathrm{SD}_{0}=1.31$ | $\mathrm{SD}_{0}=1.28$ | $\mathrm{SD}_{0}=1.13$ | $\mathrm{SD}_{0}=1.14$ | $\mathrm{SD}_{0}=1.19$ |
| Drug-Inter | $\mathrm{F}=9.185^{*}$ | $\mathrm{F}=5.864{ }^{*}$ | $\mathrm{F}=4.976{ }^{*}$ | $5.813^{*} \mathrm{~F}=$ | $\mathrm{F}=6.781^{*}$ | $\mathrm{F}=6.237^{*}$ | $\mathrm{F}=3.781$ | $\mathrm{F}=5.906^{*}$ | $\mathrm{F}=4.349^{*}$ |
|  | $\mathrm{M}_{1}=3.50$ | $\mathrm{M}_{1}=3.36$ | $\mathrm{M}_{1}=3.29$ | $M_{1}=4.08$ | $\mathrm{M}_{1}=4.15$ | $M_{1}=4.08$ | $\mathrm{M}_{1}=3.38$ | $\mathrm{M}_{1}=3.46$ | $\mathrm{M}_{1}=3.38$ |
|  | $\mathrm{M}_{0}=2.59$ | $\mathrm{M}_{0}=2.62$ | $\mathrm{M}_{0}=2.59$ | $\mathrm{M}_{0}=3.19$ | $\mathrm{M}_{0}=3.19$ | $\mathrm{M}_{0}=3.16$ | $\mathrm{M}_{0}=2.73$ | $\mathrm{M}_{0}=2.65$ | $\mathrm{M}_{0}=2.65$ |
|  | $\mathrm{SD}_{1}=.650$ | $\mathrm{SD}_{1}=.745$ | $\mathrm{SD}_{1}=.726$ | $\mathrm{SD}_{1}=.760$ | $\mathrm{SD}_{1}=.689$ | $\mathrm{SD}_{1}=.760$ | $\mathrm{SD}_{1}=.768$ | $\mathrm{SD}_{1}=.660$ | $\mathrm{SD}_{1}=.768$ |
|  | $\mathrm{SD}_{0}=1.04$ | $\mathrm{SD}_{0}=1.04$ | $\mathrm{SD}_{0}=1.07$ | $\mathrm{SD}_{0}=1.24$ | $\mathrm{SD}_{0}=1.27$ | $\mathrm{SD}_{0}=1.24$ | $\mathrm{SD}_{0}=1.12$ | $\mathrm{SD}_{0}=1.14$ | $\mathrm{SD}_{0}=1.18$ |

[^3]Appendix M
Current Responsibility

| Perception of current responsibility for each of the following high-risk behaviours (i.e., participants were asked to rate on a $0-100 \%$ scale) |  |  |  |
| :---: | :---: | :---: | :---: |
| High-risk behaviours | Prevention | Assessment | Intervention |
| Suicide attempts | M: 66.00 SD: 30.30 | M: 75.29 SD: 27.48 | M: 70.98 SD: 29.48 |
| Self-mutilation | M: 60.82 SD: 35.58 | M: 69.60 SD: 32.64 | M: 68.80 SD: 33.36 |
| Bullying | M: 63.67 SD: 26.35 | M: 67.35 SD: 23.34 | M: 68.40 SD: 24.27 |
| Extreme school violence | M: 44.49 SD: 30.89 | M: 50.61 SD: 28.31 | M: 50.83 SD: 29.45 |
| Eating disorders and related behaviour | M: 49.39 SD: 33.44 | M: 54.40 SD: 31.05 | M:57.92 SD: 34.82 |
| Sexual behaviours leading to risk of HIV or other STIs | M: 44.80 SD: 33.94 | M: 45.00 SD: 32.62 | M: 48.16 SD: 35.57 |
| Drug-using behaviours leading to risk of HIV or other STI's | M: 44.08 SD: 34.15 | M: 42.50 SD: 33.42 | M: 43.67 SD: 35.51 |
| Appendix N Desired Responsibility |  |  |  |
| Perception of desired responsibility for each of the following high-risk behaviours (i.e., participants were asked to rate on a $0-100 \%$ scale) |  |  |  |
| High-risk behaviours | Prevention | Assessment | Intervention |
| Suicide attempts | M: 56.67 SD: 26.52 | M: 61.25 SD: 23.12 | M: 60.00 SD: 26.09 |
| Self-mutilation | M: 59.57 SD: 27.48 | M: 58.72 SD: 24.46 | M: 59.15 SD: 26.69 |
| Bullying | M: 56.25 SD: 22.84 | M: 58.78 SD: 20.17 | M: 57.08 SD: 22.21 |
| Extreme school violence | M: 43.83 SD: 26.91 | M: 47.23 SD: 26.84 | M: 46.52 SD: 27.67 |
| Eating disorders and related behaviour | M: 50.64 SD: 27.30 | M: 52.77 SD: 23.75 | M: 50.43 SD: 25.90 |
| Sexual behaviours leading to risk of HIV or other STIs | M: 42.13 SD: 27.74 | M: 42.13 SD: 25.45 | M: 41.30 SD: 26.13 |
| Drug-using behaviours leading to risk of HIV or other STI's | M: 42.61 SD: 28.47 | M: 42.67 SD: 25.80 | M: 43.64 SD: 27.03 |

## Appendix O

Current and Desired Responsibility



|  <br>  त̣ <br>  |
| :---: |
|  |  |
|  |  |

F=.063
F= 2.905

F= 1.692

Suicide-Assess
Suicide-Inter
Self-Mut-Prev
Self-Mut-Assess
Self
Mut-Inter
Bullying-Prev
Desired Res Inter $\mathrm{F}=2.514$
$\mathrm{M}_{1}=59.49$
$\mathrm{M}_{0}=46.67$
$\mathrm{SD}_{1}=19.73$
$\mathrm{SD}_{0}=30.00$ $\mathrm{F}=.932$ $\stackrel{+}{ \pm}$
 $\infty$
त
II
0
0 $\mathrm{F}=9.839^{* *}$ $M_{1}=61.11$
$M_{0}=37.14$ n i $\mathrm{SD}_{0}=25.94$ $\mathrm{F}=11.812^{* *}$ $M_{1}=62.22$ $M_{0}=36.43$ $\mathrm{SD}_{1}=25.57$ $\infty$
$\underset{\sim}{1}$
N
0
0 $\mathrm{F}=5.155^{*}$

 $\mathrm{SD}_{1}=28.01$
$\mathrm{SD}_{0}=25.11$ $\mathrm{F}=6.436^{*}$
$\mathrm{M}_{1}=58.46$
 8
8
ㄴ
11
2

Desired Res Assess

| Bullying-Assess | $\mathrm{F}=.198$ | $\mathrm{F}=.000$ | $\mathrm{F}=.013$ | $\mathrm{F}=1.991$ | $\mathrm{F}=.277$ | $\mathrm{F}=2.514$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $M_{1}=62.93$ | $M_{1}=67.32$ | $M_{1}=68.57$ | $\mathrm{M}_{1}=58.46$ | $M_{1}=59.50$ | $\mathrm{M}_{1}=59.49$ |
|  | $\mathrm{M}_{0}=67.50$ | $\mathrm{M}_{0}=67.50$ | $\mathrm{M}_{0}=67.50$ | $\mathrm{M}_{0}=46.67$ | $\mathrm{M}_{0}=55.56$ | $\mathrm{M}_{0}=46.67$ |
|  | $\mathrm{SD}_{1}=26.67$ | $\mathrm{SD}_{1}=23.56$ | $\mathrm{SD}_{1}=24.25$ | $\mathrm{SD}_{1}=20.72$ | $\mathrm{SD}_{1}=19.47$ | $\mathrm{SD}_{1}=19.73$ |
|  | $\mathrm{SD}_{0}=26.05$ | $\mathrm{SD}_{0}=23.75$ | $\mathrm{SD}_{0}=26.05$ | $\mathrm{SD}_{0}=30.00$ | $\mathrm{SD}_{0}=24.04$ | $\mathrm{SD}_{0}=30.00$ |
| Bullying-Inter | $\mathrm{F}=3.248$ | $\mathrm{F}=4.070^{*}$ | $\mathrm{F}=2.620$ | $\mathrm{F}=.724$ | $\mathrm{F}=.623$ | $\mathrm{F}=.932$ |
|  | $\mathrm{M}_{1}=65.91$ | $\mathrm{M}_{1}=69.55$ | $\mathrm{M}_{1}=70.22$ | $\mathrm{M}_{1}=57.21$ | $\mathrm{M}_{1}=59.55$ | $\mathrm{M}_{1}=58.14$ |
|  | $M_{0}=44.0$ | $\mathrm{M}_{0}=48.00$ | $\mathrm{M}_{0}=52.00$ | $\mathrm{M}_{0}=48.00$ | $\mathrm{M}_{0}=52.00$ | $\mathrm{M}_{0}=48.00$ |
|  | $\mathrm{SD}_{1}=24.62$ | $\mathrm{SD}_{1}=20.90$ | $\mathrm{SD}_{1}=22.00$ | $\mathrm{SD}_{1}=22.92$ | $\mathrm{SD}_{1}=19.99$ | $\mathrm{SD}_{1}=22.17$ |
|  | $\mathrm{SD}_{0}=35.78$ | $\mathrm{SD}_{0}=36.33$ | $\mathrm{SD}_{0}=38.99$ | $\mathrm{SD}_{0}=22.80$ | $\mathrm{SD}_{0}=22.80$ | $\mathrm{SD}_{0}=22.80$ |
| Extreme Violence- | $\mathrm{F}=316$ | $\mathrm{F}=.865$ | $\mathrm{F}=.736$ | $\mathrm{F}=7.589^{* *}$ | $\mathrm{F}=9.185^{* *}$ | $\mathrm{F}=9.839^{* *}$ |
| Prev | $\mathrm{M}_{1}=51.11$ | $\mathrm{M}_{1}=55.56$ | $\mathrm{M}_{1}=55.56$ | $\mathrm{M}_{1}=56.67$ | $M_{1}=61.11$ | $M_{1}=61.11$ |
|  | $\mathrm{M}_{0}=40.65$ | $\mathrm{M}_{0}=47.74$ | $\mathrm{M}_{0}=48.00$ | $\mathrm{M}_{0}=35.86$ | $\mathrm{M}_{0}=38.62$ | $\mathrm{M}_{0}=37.14$ |
|  | $\mathrm{SD}_{1}=32.34$ | $\mathrm{SD}_{1}=29.55$ | $\mathrm{SD}_{1}=33.29$ | $\mathrm{SD}_{1}=26.79$ | $\mathrm{SD}_{1}=24.22$ | $\mathrm{SD}_{1}=24.23$ |
|  | $\mathrm{SD}_{0}=29.88$ | $\mathrm{SD}_{0}=27.65$ | $\mathrm{SD}_{0}=27.09$ | $\mathrm{SD}_{0}=24.13$ | $\mathrm{SD}_{0}=25.03$ | $\mathrm{SD}_{0}=25.94$ |
| Extreme Violence- | $\mathrm{F}=.572$ | $\mathrm{F}=2.507$ | $\mathrm{F}=2.210$ | $\mathrm{F}=6.160^{*}$ | $\mathrm{F}=15.871^{* *}$ | $\mathrm{F}=11.812^{* *}$ |
| Assess | $\mathrm{M}_{1}=48.89$ | $\mathrm{M}_{1}=58.89$ | $\mathrm{M}_{1}=58.89$ | $\mathrm{M}_{1}=55.56$ | $M_{1}=64.44$ | $\mathrm{M}_{1}=62.22$ |
|  | $\mathrm{M}_{0}=41.94$ | $\mathrm{M}_{0}=45.81$ | $\mathrm{M}_{0}=46.00$ | $\mathrm{M}_{0}=36.55$ | $\mathrm{M}_{0}=36.55$ | $\mathrm{M}_{0}=36.43$ |
|  | $\mathrm{SD}_{1}=34.45$ | $\mathrm{SD}_{1}=29.48$ | $\mathrm{SD}_{1}=33.24$ | $\mathrm{SD}_{1}=27.91$ | $\mathrm{SD}_{1}=23.32$ | $\mathrm{SD}_{1}=25.57$ |
|  | $\mathrm{SD}_{0}=28.92$ | $\mathrm{SD}_{0}=26.93$ | $\mathrm{SD}_{0}=26.34$ | $\mathrm{SD}_{0}=23.95$ | $\mathrm{SD}_{0}=23.34$ | $\mathrm{SD}_{0}=24.38$ |
| Extreme Violence- | $\mathrm{F}=.179$ | $\mathrm{F}=.981$ | $\mathrm{F}=.832$ | $\mathrm{F}=2.386$ | $\mathrm{F}=7.031^{*}$ | $\mathrm{F}=5.155^{*}$ |
| Inter | $\mathrm{M}_{1}=46.67$ | $\mathrm{M}_{1}=55.24$ | $\mathrm{M}_{1}=55.24$ | $\mathrm{M}_{1}=50.48$ | $M_{1}=58.10$ | $\mathrm{M}_{1}=56.19$ |
|  | $\mathrm{M}_{0}=42.86$ | $\mathrm{M}_{0}=47.14$ | $\mathrm{M}_{0}=47.41$ | $\mathrm{M}_{0}=38.46$ | $\mathrm{M}_{0}=38.46$ | $\mathrm{M}_{0}=38.40$ |
|  | $\mathrm{SD}_{1}=31.83$ | $\mathrm{SD}_{1}=28.92$ | $\mathrm{SD}_{1}=32.19$ | $\mathrm{SD}_{1}=28.72$ | $\mathrm{SD}_{1}=26.76$ | $\mathrm{SD}_{1}=28.01$ |
|  | $\mathrm{SD}_{0}=30.65$ | $\mathrm{SD}_{0}=27.87$ | $\mathrm{SD}_{0}=27.26$ | $\mathrm{SD}_{0}=24.61$ | $\mathrm{SD}_{0}=23.95$ | $\mathrm{SD}_{0}=25.11$ |
| Eating Disorders- | $\mathrm{F}=8.696^{* *}$ | $\mathrm{F}=10.004^{* *}$ | $\mathrm{F}=7.109^{*}$ | $\mathrm{F}=7.865^{*}$ | $\mathrm{F}=4.655^{*}$ | $\mathrm{F}=6.436^{*}$ |
| Prev | $\mathrm{M}_{1}=60.71$ | $\mathrm{M}_{1}=65.71$ | $\mathrm{M}_{1}=68.57$ | $\mathrm{M}_{1}=60.00$ | $M_{1}=59.23$ | $\mathrm{M}_{1}=58.46$ |
|  | $\mathrm{M}_{0}=34.29$ | $\mathrm{M}_{0}=40.00$ | $\mathrm{M}_{0}=43.00$ | $\mathrm{M}_{0}=39.05$ | $\mathrm{M}_{0}=44.76$ | $\mathrm{M}_{0}=40.00$ |
|  | $\mathrm{SD}_{1}=31.50$ | $\mathrm{SD}_{1}=28.21$ | $\mathrm{SD}_{1}=33.74$ | $\mathrm{SD}_{1}=24.66$ | $\mathrm{SD}_{1}=18.31$ | $\mathrm{SD}_{1}=21.85$ |
|  | $\mathrm{SD}_{0}=30.43$ | $\mathrm{SD}_{0}=28.95$ | $\mathrm{SD}_{0}=31.30$ | $\mathrm{SD}_{0}=26.44$ | $\mathrm{SD}_{0}=27.50$ | $\mathrm{SD}_{0}=27.53$ |



| Eating Disorders- | $\mathrm{F}=1.239$ |
| :--- | :--- |
| Assess | $\mathrm{M}_{1}=53.79$ |
|  | $\mathrm{M}_{0}=43.00$ |
|  | $\mathrm{SD}_{1}=35.50$ |
|  | $\mathrm{SD}_{0}=29.93$ |
| Eating Disorders- | $\mathrm{F}=2.407$ |
| Inter | $\mathrm{M}_{1}=55.71$ |
|  | $\mathrm{M}_{0}=40.95$ |
|  | $\mathrm{SD}_{1}=35.01$ |
|  | $\mathrm{SD}_{0}=29.98$ |
| Seual Behaviour- | $\mathrm{F}=5.306^{*}$ |
| Prev | $\mathrm{M}_{1}=55.83$ |
|  | $\mathrm{M}_{0}=34.62$ |
|  | $\mathrm{SD}_{1}=28.88$ |
|  | $\mathrm{SD}_{0}=35.58$ |
| Sexual Behaviour- | $\mathrm{F}_{2}=3.903$ |
| Assess | $\mathrm{M}_{1}=54.78$ |
|  | $\mathrm{M}_{0}=36.3$ |
|  | $\mathrm{SD}_{1}=29.06$ |
|  | $\mathrm{SD}_{0}=35.96$ |
|  | $\mathrm{~F}_{0}=5.828^{*}$ |
|  | $\mathrm{M}_{1}=57.27$ |
| Sexual Behaviour- | $\mathrm{M}_{0}=35.00$ |
| Inter | $\mathrm{SD}_{1}=28.48$ |
|  | $\mathrm{SD}_{0}=35.12$ |
|  | $\mathrm{~F}=1.457$ |
|  | $\mathrm{M}_{1}=52.50$ |
| Drug Use-Prev | $\mathrm{M}_{0}=40.00$ |
|  | $\mathrm{SD}_{1}=29.10$ |
|  | $\mathrm{SD}_{0}=36.06$ |
|  |  |


Cur Res Prev


| Suicide-Assess Role | $\mathrm{F}_{1}=206$ |
| :--- | :--- |
|  | $\mathrm{M}_{1}=65.52$ |
|  | $\mathrm{M}_{0}=69.47$ |
|  | $\mathrm{SD}_{1}=30.19$ |
|  | $\mathrm{SD}_{0}=28.57$ |
| Suicide-Inter Role | $\mathrm{F}=2.500$ |
|  | $\mathrm{M}_{1}=72.41$ |
|  | $\mathrm{M}_{0}=58.95$ |
|  | $\mathrm{SD}_{1}=28.99$ |
|  | $\mathrm{SD}_{0}=28.65$ |
| Self-Mut-Prev Role | $\mathrm{F}_{1}=1.293$ |
|  | $\mathrm{M}_{1}=69.41$ |
|  | $\mathrm{M}_{0}=57.33$ |
|  | $\mathrm{SD}_{1}=34.00$ |
|  | $\mathrm{SD}_{0}=35.52$ |
| Self-Mut-Assess Role | $\mathrm{F}_{1}=.213$ |
|  | $\mathrm{M}_{1}=63.85$ |
|  | $\mathrm{M}_{0}=59.05$ |
|  | $\mathrm{SD}_{1}=32.99$ |
|  | $\mathrm{SD}_{0}=38.20$ |
| Self-Mut-Inter Role | $\mathrm{F}_{2} 2.762$ |
|  | $\mathrm{M}_{1}=68.89$ |
|  | $\mathrm{M}_{0}=52.00$ |
|  | $\mathrm{SD}_{1}=35.23$ |
|  | $\mathrm{SD}_{0}=33.34$ |
| Bullying-Prev Role | $\mathrm{F}=4.885$ |
|  | $\mathrm{M}_{1}=70.00$ |
|  | $\mathrm{M}_{0}=53.33$ |
|  | $\mathrm{SD}_{1}=20.95$ |
|  | $\mathrm{SD}_{0}=29.92$ |
|  |  |

Desired Res Inter

Desired Res Assess

Desired Res Prev $\qquad$
 $\mathrm{M}_{1}=55.33$ $\mathrm{M}_{0}=56.25$
$\mathrm{SD}_{1}=25.56$ $\mathrm{SD}_{1}=25.56$
$\mathrm{SD}_{0}=18.21$ $\mathrm{F}=1.878$ $\stackrel{N}{n}$ ふon n $\mathrm{F}=1.536$
 $\mathrm{F}=.560$ $\mathrm{M}_{1}=47.14$ $\mathrm{M}_{0}=40.65$
$\mathrm{SD}_{1}=26.73$ $\mathrm{SD}_{1}=26.73$
$\mathrm{SD}_{0}=27.07$ $\mathrm{F}=2.001$
$\mathrm{M}_{1}=57.50$ $n$
$n$
$n$
$n$
$n$
$n$


Cur Res Inter

|  |
| :---: |
| 5．86 |
| $\mathrm{M}_{0}=60.00$ |
|  |
|  |
| $\mathrm{F}=6.119^{*}$ |
|  |
|  |
| 0.32 |
|  |
| $\mathrm{F}=6.598$ |
| $\mathrm{M}_{1}=67.69$ |
| ．85 |
| 8， |
|  |
| $\mathrm{F}=4.679^{*}$ |
| $\mathrm{M}_{1}=64.00$ |
|  |
| 5.3 |
| $\mathrm{SD}_{0}=28.74$ |
| $\mathrm{F}=3.670$ |
| 源 |
| $\mathrm{M}_{0}=45.81$ |
| 26.04 |
| $\mathrm{SD}_{0}$ |
| ＝ 1.185 |
| $\mathrm{M}_{1}=65.88$ |
| $\mathrm{M}_{0}=54.4$ |
| $\mathrm{SD}_{1}=33.74$ |
| $\mathrm{SD}_{0}=34.6$ |

Cur Res Assess
$\mathrm{F}=5.447^{*}$
$\mathrm{M}_{1}=74.29$
$\mathrm{M}_{\mathrm{M}}=60.00$
$\mathrm{SD}_{1}=17.94$ $\mathrm{SD}_{0}=24.04$ $\mathrm{F}=5.449^{*}$ $\mathrm{M}_{1}=73.55$ $\mathrm{M}_{0}=58.75$ $\mathrm{SD}_{1}=18.89$ $\mathrm{SD}_{0}=23.63$ $\mathrm{F}=7.434^{* *}$ $M_{1}=67.69$ त
先
20
20 $\mathrm{SD}_{1}=17.39$
$\mathrm{SD}_{0}=28.31$ $\mathrm{F}=8.131^{* *}$
 $\begin{array}{ll}\mathrm{M}_{0} & =4.75 \\ \mathrm{SD}_{1} & =19.52\end{array}$ o．
$\stackrel{0}{\infty}$
$\stackrel{0}{0}$
0
0 $\mathrm{F}=2.378$

 0
0
0
0 F＝ 1.084
 กิ ํ． $\mathrm{SD}_{0}=30.45$
Bullying－Assess Role $\quad \mathrm{F}=.662$
$M_{1}=61.05$
$M_{0}$
$\mathrm{SD}_{1}=23.86$
0．
$F=.387$
$\mathrm{F}=.38$
$\mathrm{M}_{1}=66.25$

 $\begin{array}{ll}\text { Extreme Violence－} & \mathrm{F}=7.500^{* *} \\ \text { Prev Role } & \mathrm{M}_{1}=63.08\end{array}$ 6
0
0
0
0
0
0 0
$=1$
11
0
0
0
0 $\mathrm{F}=2.449$
$\mathrm{M}_{1}=54.67$ 8
58
110
210 $\mathrm{SD}_{1}=30.67$ $\mathrm{SD}_{0}=29.62$ $\mathrm{F}=2.449$
$\mathrm{M}_{1}=54.67$

 $\begin{array}{ll} & \\ \mathrm{SD}_{1}=29.62\end{array}$ $\mathrm{F}=2.034$
$\mathrm{M}_{1}=58.82$

 $\mathrm{SD}_{0}=34.31$
One－Way ANOVA
Bullying－Inter Role
Extreme Violence－
Assess Role
Extreme Violence－ Inter Role
Eating Disorders－
Prev Role

|  |  <br>  <br>  <br>  |
| :---: | :---: |


| Eating DisordersAssess Role | $\mathrm{F}=.560$ |
| :---: | :---: |
|  | $\mathrm{M}_{1}=54.00$ |
|  | $M_{0}=46.67$ |
|  | $\mathrm{SD}_{1}=35.00$ |
|  | $\mathrm{SD}_{0}=31.87$ |
| Eating DisordersInter Role | $\mathrm{F}=5.360^{*}$ |
|  | $M_{1}=63.33$ |
|  | $\mathrm{M}_{0}=41.38$ |
|  | $\mathrm{SD}_{1}=28.49$ |
|  | $\mathrm{SD}_{0}=33.35$ |
| Seual BehaviourPrev Role | $\mathrm{F}=10.232^{* *}$ |
|  | $M_{1}=63.33$ |
|  | $\mathrm{M}_{0}=34.00$ |
|  | $\mathrm{SD}_{1}=29.31$ |
|  | $\mathrm{SD}_{0}=31.58$ |
| Sexual BehaviourAssess Role | $\mathrm{F}=5.014^{*}$ |
|  | $M_{1}=57.89$ |
|  | $\mathrm{M}_{0}=36.55$ |
|  | $\mathrm{SD}_{1}=31.90$ |
|  | $\mathrm{SD}_{0}=32.54$ |
| Sexual BehaviourInter Role | $\mathrm{F}=12.745^{* *}$ |
|  | $M_{1}=68.00$ |
|  | $\mathrm{M}_{0}=34.55$ |
|  | $\mathrm{SD}_{1}=23.66$ |
|  | $\mathrm{SD}_{0}=32.51$ |
| Drug Use-Prev Role | $\mathrm{F}=10.253^{* *}$ |
|  | $M_{1}=65.33$ |
|  | $\mathrm{M}_{0}=34.38$ |
|  | $\mathrm{SD}_{1}=31.59$ |
|  | $\mathrm{SD}_{0}=30.58$ |






| High-risk <br> behaviours | Assess the situation <br> and offer an inter- <br> vention | Consult with <br> a colleague | Seek super- <br> vision | Transfer the case to <br> a different type of <br> helping professional | Transfer the case to <br> another helping profes- <br> sional in your discipline | Bring the case to your <br> team leader or team prior <br> to taking any action |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Extreme school | $1=12$ | $1=3$ | $1=1$ | $1=0$ | $1=0$ | $1=2$ |
| violence | $2=3$ | $2=6$ | $2=4$ | $2=1$ | $2=1$ | $2=3$ |
| (please describe) |  |  |  |  |  |  |

## Appendix S

Roles in Dealing with High-Risk Behaviour

| I take the following roles: | Team Leader | Active Team Leader | Bystander | Work Alone | Prevent Role | Assessor Role | Intervene Role | Another Response |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Suicide attempts | Yes: 30 No: 20 | Yes: 17 No: 33 | Yes: 2 No: 50 | Yes: 11 No: 39 | Yes: 21 No: 29 | Yes: 30 No: 20 | Yes: 30 No: 20 | Yes: 4 No: 46 |
| Self-mutilation | Yes: 26 No: 24 | Yes: 14 No: 36 | Yes: 1 No: 49 | Yes: 13 No: 37 | Yes: 17 No: 33 | Yes: 28 No: 22 | Yes: 28 No: 22 | Yes: 2 No: 48 |
| Bullying | Yes: 26 No: 24 | Yes: 37 No: 13 | Yes: 1 No: 49 | Yes: 8 No: 42 | Yes: 34 No: 16 | Yes: 30 No: 20 | Yes: 33 No: 17 | Yes: 3 No: 47 |
| Extreme school violence | Yes: 8 No: 42 | Yes: 26 No: 24 | Yes: 1 No: 49 | Yes: 3 No: 47 | Yes: 13 No: 37 | Yes: 15 No: 35 | Yes: 15 No: 35 | Yes: 1 No: 48 |
| Eating disorders/related behaviour | Yes: 12 No: 38 | Yes: 16 No: 34 | Yes: 2 No: 48 | Yes: 11 No: 39 | Yes: 18 No: 32 | Yes: 20 No: 30 | Yes: 19 No: 31 | Yes: 5 No: 45 |
| Risky sexual behaviour | Yes: 12 No: 38 | Yes: 16 No: 34 | Yes: 3 No: 47 | Yes: 9 No: 41 | Yes: 18 No: 32 | Yes: 19 No: 31 | Yes: 15 No: 35 | Yes: 4 No: 46 |
| Risky drug use | Yes: 8 No: 42 | Yes: 15 No: 35 | Yes: 3 No: 47 | Yes: 5 No: 45 | Yes: 15 No: 35 | Yes: 18 No: 32 | Yes: 15 No: 35 | Yes: 5 No: 45 |


[^0]:    Correlation is significant at the 0.05 level (2-tailed) ${ }^{* *}$ Correlation is significant at the 0.01 level (2-tailed)

[^1]:    * Correlation is significant at the 0.05 level (2-tailed) $\quad{ }^{* *}$ Correlation is significant at the 0.01 level (2-tailed)

[^2]:    * Correlation is significant at the 0.05 level (2-tailed) $\quad{ }^{* *}$ Correlation is significant at the 0.01 level (2-tailed)

[^3]:    *Significant at the 0.05 level (2-tailed) $\quad{ }^{* *}$ Significant at the 0.01 level ( 2 -tailed)

