ATTITUDES OF WHITEHORSE CANADA GRADE 12 STUDENTS TOWARDS HARM REDUCTION AS AN INTERVENTION STRATEGY FOR CRACK/HEROIN DEPENDENCY

Michael S. Knutson[1]

Abstract: This study investigated the association between the psychological variables of conservatism, religiosity, sensation seeking, and health locus of control (HLOC) with Whitehorse Grade 12 students' attitudes toward harm reduction as an intervention. A total of 138 high school students in Whitehorse Yukon, Canada voluntarily filled out a questionnaire designed to meet the objectives of the study. GLM multivariate analysis of variance (MANOVA) showed that female participants reported higher levels of conservatism and religiosity than their male counterparts. Multiple regression analysis was conducted to test the impact of the psychological variables of conservatism, religiosity, sensation seeking, and HLOC on attitudes toward harm reduction as an intervention. The results indicated that only the variable of powerful others HLOC was significantly and negatively associated with the participants' attitude toward harm reduction as an intervention. The findings were discussed in terms of the role that external HLOC, in particular, the belief that one's life is controlled by powerful others, may play in the overall level of support for harm reduction as an intervention strategy for drug addiction.

Keywords: Harm Reduction, Addictions, Attitudes, Adolescents, Conservatism, Religiosity, Sensation Seeking, Health Locus of Control, Crack, Heroin

Introduction

In Canada, the overall financial cost of illegal drugs, measured by burden on health care and law enforcement services and decreased work productivity (death or disability) in 2006 was 8.2 billion dollars (Rhelm et al., 2002). According to health statistics reported in Canada in 2009, 5.5% of youth age 15 to 24 years used at least one of 5 illicit drugs (cocaine or crack, speed, hallucinogens, ecstasy, and heroin), with crack or cocaine (1.2%) being the most popular drug after marijuana (Statistics Canada, 2009). Based on these statistics, it is clear that drug addiction, such as crack and heroin dependence, affects more than just individuals who use it; it is an issue that concerns multiple harms to diverse aspects of society.

Harm reduction is defined as "a set of practical strategies with the goal of meeting drug users *'where they are at'* to help them reduce any harm associated with their drug use" (p.6) (Marlatt, 1998). According to Marlatt (1998), who is an authoritative force behind the harm reduction movement, the idea of harm reduction is more of an 'attitude' than a set of rules and regulations. He describes this attitude as a "humanitarian stance that accepts the inherent dignity of life and facilitates the ability to see oneself in the eyes of the other instead of judging them" (p.6). Harm reduction is both a philosophy and a treatment approach. Tatarsky (2003) has outlined a core set of six ideas that has shaped the harm reduction model:

i) *Meeting the client as a unique individual*: coming with diverse internal worlds, strengths, needs, vulnerabilities, biology, social backgrounds, and drug use history.

ii) *Starting where the patient is*: accepting whatever goals and level of motivation for change they come with.

iii) *Assuming the client has strengths that can be supported*: wanting to grow, change, learn about him/herself, and open to receiving help.

iv) *Accepting small incremental change as steps in the right direction*: it may take some time for the person to move forward.

v) *Not holding abstinence as a necessary precondition of the therapy*: allows dependents to begin where they are at.

vi) *Developing a collaborative, empowering relationship with the client*: emphasis on equality, it is accepted that the therapist does not have a greater grasp on the truth for the patient.

In other words, people working in the field of harm reduction must engage people addicted to crack and heroin with a certain attitude, as well as helping them reduce harm associated with drug use by utilizing various harm reduction intervention strategies.

Along with the right attitude and with emphasis aimed squarely at therapeutic intervention, other important intervention strategies have also been promoted, strategies such as: needle and syringe exchange programs, methadone and replacement therapies, safe injecting rooms, crack kit distribution, safety educational campaigns, and replacing incarceration of convicted drug offenders with treatment programs. All these are popular, specific, and effective examples of harm reduction intervention strategies (MacCoun, 1998).

Meeting clients where '*they are at*' has both psychological and practical implications. An example of these implications can be found in

[1] M.S. Candidate in Counseling of Psychology, Graduate School of Psychology, Assumption University, Thailand Mknut075@yahoo.ca

Whitehorse Canada, and specifically with the activities associated with the '*no fixed address Outreach Van*.' The Outreach van roams the streets of the city in search for clients in need of harm reduction supplies. The van is managed by two professionals, usually a counselor or a nurse trained in harm reduction intervention strategies, such as motivational interviewing; it is also equipped with literature and information regarding HIV and Hepatitis C risk reduction. Needle exchange and crack kit distribution are the most common interventions for outreach clients while referrals are made to fixed sites for in-depth counseling, methadone and other replacement therapies. There are diverse methods of supplying drug dependents with harm reduction supplies in Canada as well as in different cities all over the world. Some of these methods are mobile and some stationary, but all with the major focus on the "safer" uses of drugs.

Even though there is strong evidence that harm reduction intervention strategy works, there is much hesitation to change conventional treatment interventions and to modify final outcome goals to non-abstinence. In the United States, 222 treatment providers were surveyed and it was found that only 26% of these providers rated non-abstinence acceptable as a final outcome goal (Rosenberg & Phillips, 2003). Although *abstinence* based programs are the preferred intervention by professionals, they have high relapse rates. Prochaska, DiClemente, and Norcross (1992) investigated the reasons behind high relapse rates and found that when client's goals did not match the program's goals, there was much ambivalence resulting in high dropout rates. In other words, abstinence based interventions are not effective for individuals who are not ready to quit. The recognition that total abstinence is a non-achievable goal provided the impetus for the push for *acceptability of harm reduction* as a more realistic intervention strategy by treatment professionals.

Research Objectives

To date, the underlying factors contributing to positive or negative attitudes towards harm reduction remain unclear. By investigating the impact of certain psychological factors (conservatism, sensation seeking, religiosity, locus of control) on attitudes toward harm reduction, treatment providers and health organisations may be able to develop more effective harm reduction education programs aimed at promoting awareness of this specific intervention strategy and in particular, its efficacy as a treatment program for drug dependents. Because the researcher works on an outreach van that distributed harm reduction supplies, as well as working with youth specific populations, the present study was designed to investigate attitudes of a specific group of adolescents', grade 12 students in Whitehorse, Yukon, Canada, attitudes toward harm reduction as an intervention strategy. The study's research objectives are:

1. To investigate Whitehorse Grade 12 students' (i) level of conservatism, sensation seeking, religiosity, and health locus of control, and (ii) their attitudes towards crack and heroin harm reduction as an intervention.

2. To investigate the predictive capacity of the psychological variables of conservatism, sensation seeking, religiosity, and health locus of control on Whitehorse Grade 12 students' attitudes towards harm reduction.

Method

Participants

The sample consisted of 137 Whitehorse Grade 12 students who voluntarily filled in the study's questionnaire. Of the 137 participants, 61 (44.5%) were males and 76 (55.5%) were females. Their ages ranged from 16 to 19 years, with a mean age of 17.31 years. In terms of their ethnicity, 91 (66.4%) participants reported that they were white, 28 (20.4%) participants identified themselves as First Nation, and 18 participants reported their ethnicity as 'others.' In terms of their religious affiliation, 36 participants (26.3%) identified themselves as Christians, 2 participants (1.5%) Muslims, 2 participants (1.5%) Buddhists, 16 participants (11.7%) agnostics, 25 participants (18.2%) atheists, and 56 participants (40.9%) identified themselves with 'other' religions.

Material

The questionnaire employed consisted of six sections.

Section 1 contained items written to elicit the participants' demographic characteristics of gender, age, ethnicity, and socio-economic status. This section also contained questions that tap their level of understanding of the crack and heroin harm reduction strategy.

Section 2 consisted of the 12-item Social Conservative Scale (Henningham, 1996). Respondents indicated whether they favour, oppose or hold a neutral view on each catchphrase (e.g., death penalty, abortion, gay rights). Responding "yes" to conservative choices receives 2 points, liberal choices receive 0, and neutral/undecided choices receive 1 point. Henningham reported a reliability coefficient of .74 and significant correlations with related constructs (convergent validity).

Section 3 consisted of the Religiosity Scale developed by Rohrbaugh and Jessor (1975). This scale contained a religious identifier question and

eight items that measured the four religiosity sub-dimensions of (a) ritual (b) consequential (c) ideological and (d) experiential. Each dimension was measured by two items with each item being scored from 0-4, with 0 indicating the least religiosity and 4 indicating the greatest religiosity. Therefore, each dimension yielded a score ranging from 0 to 8. The total scale score ranged from 0 to 32. Of the eight items, 5 were reverse-scored. This measure has demonstrated high internal consistency (Cronbach's coefficient alpha >.90) (Rohrbaugh & Jessor, 1975).

Section 4 consisted of the 18-item Brief Sensation Seeking Scale (Hoyle et al., 2002) adapted from the 40-item Sensation Seeking Scale–Form V (Zuckerman, 1996). This scale assessed the students' level of sensation seeking according to the four dimensions of (a) thrill and adventure seeking; (b) experience seeking; (c) disinhibition; and (d) boredom and susceptibility. Each item was rated on a 5- point Likert scale (1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4=agree, 5=strongly agree) with high scores indicating high need for sensation seeking. Hoyle et al. (2002) reported an internal consistency coefficient of .76 for this scale.

Section 5 consisted of the 18-item Multidimensional Health Locus of Control (MHLC) scale developed to assess the level of people's belief in the controllability of their health along the three dimensions of internality, powerful others (externality), and chance (externality) (Wallston & DeVellis, 1978). Each item was rated on a 6-point Likert scale (1=strongly disagree; 2 =disagree; 3 =somewhat disagree; 4 =somewhat agree; 5 =agree; 6 =strongly agree) with high scores indicating strong belief in the controllability of one's health. In Wallston's (2005) review of the MHLC, it was reported that the scale has moderate internal and external reliability scores (Cronbach's alphas=.60-.75; test- re-test reliability=.60-.70). Wallston also reported evidence that supported the MHLC subscales' construct validity.

Section 6 consisted of the 27-item measure of attitude toward harm reduction, adapted from Goddard's (1999) Harm Reduction Acceptability Scale (HRAS). Each item was rated on a 5-point Likert scale (1=strongly agree; 2 =agree; 3 =neither agree nor disagree; 4 =disagree; 5 =strongly agree) with high scores indicating a positive attitude towards harm reduction. Evidence for the reliability of the HRAS (Goddard, 1999) includes moderately high internal consistency (Cronbach's alphas ranging from 0.877 [pre] to 0.929 [post]) and moderate 3-week test–retest reliability of r = 0. 825) of the 27 items, 12 are to be reverse-scored.

Procedure

Participants were recruited using the convenience sampling method in which Whitehorse Grade 12 students' were invited to voluntarily fill in the survey questionnaire. Potential participants were informed of the general nature of the study, i.e., to investigate their attitude toward crack and heroin harm reduction strategy. Participants were then invited to fill in the study's questionnaire. Participants were also provided with an information sheet informing them that (1) they can withdraw from filling in the questionnaire at any time, (2) no names will be recorded to guarantee the participant's anonymity, and (3) the data collected will only be used for the purpose of this study and only by the researcher and his advisor. Each student was asked to sign a consent form agreeing to voluntarily participate in the study prior to filling in the study's questionnaire.

Results

What is the level of support or opposition of Whitehorse College students toward crack and heroin harm reduction as an intervention?

The following Table 1 presents the means and standard deviations for the seven factors of conservatism, religiosity, sensation seeking, internal HLOC, chance HLOC, powerful others HLOC, and harm reduction. The Table also presents the means and standard deviations as a function of the participants' gender.

Table 1: Means and Standard Deviations for the Computed Factors of Conservatism, Religiosity, Sensation Seeking, Internal LOC, Chance LOC, Powerful Others LOC, And Harm Reduction as A Function of Gender

	Male		**Female**		**Entire sample**	
	Mean	SD	Mean	SD	Mean	SD
Conservatism	.39	.59	.59	.60	.50	.60
Religiosity	1.89	.87	2.49	.98	2.22	.97
Sensation seeking	3.61	.83	3.58	.74	3.59	.78
Internal HLOC	4.08	.75	4.00	.73	4.03	.74
Chance HLOC	2.99	.85	3.00	.79	3.00	.82
Powerful others HLOC	2.46	.85	2.60	.93	2.5	.89
Harm reduction	3.33	.56	3.35	.48	3.34	.51

As can be seen from Table 1, the factors of conservatism, religiosity, chance HLOC, and powerful others HLOC were rated below the mid-point, while the factors of sensation seeking, internal HLOC, and harm reduction were rated above the mid-point on their respective scales by both male and female participants. Thus, overall, both male and female participants were low in conservatism, religiosity, and their beliefs that their lives were controlled by chance and powerful others. Alternatively, both male and female participants were high in their need for sensation seeking, their belief that they were in control of their lives, and their support for harm reduction.

GLM Multivariate Analysis of Variance (MANOVA) to Test for gender Differences

In order to investigate whether there are gender differences for the seven computed variables, GLM multivariate analysis of variance (MANOVA) was conducted. The results showed that there was an overall gender effect for the seven variables combined, F (7,129) = 2.25, $p < .05$. Follow-up tests of between-subjects effects showed that gender has a significant effect for the dependent variables of conservatism and religiosity, F (1,135) = 4.41, $p < .05$ and F (1,135) = 14.22, $p < .001$ respectively. Examination of the marginal means showed that female participants reported higher levels of conservatism (M = 0.59) and religiosity (M = 2.49) than their male counterparts (M = 0.39 and M = 1.89 respectively). Male and female respondents do not differ on levels of sensation seeking, internal HLOC, chance HLOC, powerful others HLOC, and harm reduction (p>.05).

Multiple Regression Analysis

In order to test the impact of the psychological variables of conservatism, religiosity, sensation seeking, and HLOC on attitudes toward harm reduction as an intervention, multiple regression analysis was conducted. The results of this analysis are presented in Figure 1.

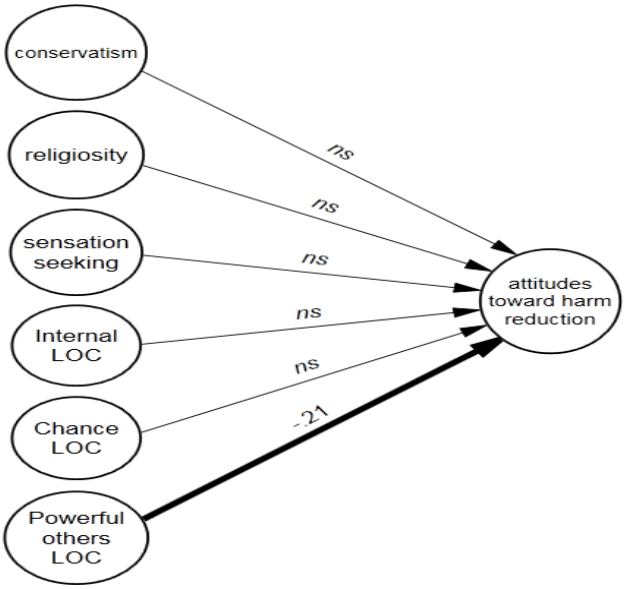

Figure 1: Regression Model of Respondents' Attitude toward Harm Reduction as An Intervention as A Function of The Influences of Their Levels of Conservatism, Religiosity, Sensation Seeking, Internal HLOC, Chance HLOC, and Powerful Others HLOC

The results showed that of the six predictor variables, only the variable of powerful others HLOC was found to be significantly and negatively associated with the participants' attitude toward harm reduction as an intervention. Thus, the more the study's participants believed that their lives were controlled by powerful others, the lower their support of (i.e., more negative attitude toward) harm reduction (Beta = -.21). The other five predictor variables were not found to be significantly related to attitude toward harm reduction.

Discussion

Findings from the regression analysis showed that the factor of powerful others HLOC is the only significant predictor of the participants' support for harm reduction as an intervention strategy. More specifically, the negative coefficient obtained shows that the more the participants perceived their lives and health as being controlled by powerful others, the lower their support for harm reduction as an intervention strategy. Rosenburg and Phillips (2003)

found that 47% of treatment service agencies in the United States believed supporting harm reduction education would be 'sending the wrong message', while 67% reported harm reduction education as 'not consistent with agency philosophy.' These negative messages from across-the-border 'powerful others' could have flowed on to the Whitehorse community, such that Whitehorse students with high belief in powerful others HLOC could have been strongly influenced by the anti-harm reduction and/or pro abstinence messages coming from U.S. health care providers. Another study by Braman (2004) regarding patient personality preference for relationships with doctors found that people with a greater belief that powerful others controlled their health were less likely to want to seek information or make decisions about their health. If this is the case with the Whitehorse youth in the present study, then there may be a lack of concern for education regarding harm reduction philosophy, along with obedience regarding traditional methods of treatment that consists of abstinence-based programs.

The obtained negative coefficient between powerful others HLOC and support for harm reduction can also be interpreted as the less the participants perceived their lives as being controlled by powerful others, the higher their support for harm reduction as an intervention strategy. Such an interpretation is in line with many past studies that have found health care providers hold negative attitudes towards harm reduction programs. As pointed out by Hore (1995), harm reduction is a personal strategy to deal with one's addiction in which the pace of 'treatment' is under the addict's personal control. In effect, in supporting the addict's own treatment goals and progress, the study's participants seem to have minimized the role of the therapist (powerful other). In Hore's (1995) study of controlled (alcohol) drinking, it was found that therapists viewed harm reduction strategy as unsuccessful as clients often do not make immediate decision leading to action; worse still, clients choosing their own treatment goals and progress seems to negate the important role of the therapist. An implication of this finding is that in order to win over people's support for this intervention strategy, communication must be directed at lowering one's dependence on powerful others, such as government officials, doctors, therapists, and to rely more on oneself, that is, to take responsibility for one's life and health.

The finding that females scored higher on the Conservatism scale than males contradicts findings from past studies that have generally shown males to be more conservative. This finding suggests that there may be some environmental factors in the Yukon, perhaps related to the very high-risk lifestyle, especially for women, which could have biased females' views toward a more conservative way of thinking, to support punishment for substance abuse rather than harm reduction strategies. Furthermore, the findings that Whitehorse students scored low on religiosity in general but high in support for harm reduction as an intervention suggest that there is an association between low religiosity and support for alternatives to abstinence programs. More than this, the finding that the female participants in the present study scored higher on the religiosity scale as well as higher on the conservative scale than their male counterparts, suggest that female high school students in the Whitehorse community may be more supportive of traditional abstinence based programs than males.

The findings show that the study's student participants are very aware of harm reduction strategy and which may be partially due to the workings of the outreach van. This implies that outreach services related to harm reduction are effective methods of raising awareness of the benefits of harm reduction programs. If similar programs were to be extended nation-wide, other youths across the country would be much more educated about the effectiveness of harm reduction as an intervention strategy.

In conclusion, this research expanded on previous research regarding harm reduction by exploring the impact that the psychological variables of conservatism, religiosity, sensation-seeking, and health locus of control may have on attitudes towards harm reduction. Most importantly, this study identified a significant barrier towards support for harm reduction, that is having a strong belief in 'powerful others.' An important outcome of this research is that it may have encouraged the study's grade 12 students to further explore harm reduction philosophies as well as to question their belief in powerful others and to recognize that there are alternatives to abstinence based programs. Through education people can change their locus of control, and educating people about the need to take control/responsibility of their lives may increase their understanding of the responsibility-based philosophy underlying the harm reduction strategy, leading to even more acceptance of the strategy. Although harm reduction strategies are a very effective alternative for drug dependents that are not ready or able to quit, abstinence remains the leading method of treatment by health professionals in North America. It is encouraging to witness that the youth in Whitehorse Yukon support harm reduction intervention strategies, and it is possible that such positive views towards harm reduction strategies may increase as education

increases. Harm reduction is a non-abstinence based intervention that has been proven to be effective in reducing negative effects caused by drugs to the individual and society.

References

Goddard, P. (1999). Changing attitudes towards harm reduction among treatment professionals: A report from the American Midwest. *International Journal of drug Policy*, 14, 257-260.

Henningham, J. P. (1996) A 12- item scale of social conservatism. *Personality & Individual Differences, 20(4),* 517-519.

Hore, B. (2005). You can't just leave the goal choice to the patient. *Addiction*, 90(9), 1172-1173.

Hoyle, R. H., Stephenson, M.T., Palmgreen, P., & Slater, M. D. (2002). Brief measures of sensation seeking for screening and large-scale surveys. Drug and Alcohol Dependence, 72, 279-286.

MacCoun, R. J. (1998). Toward a psychology of harm reduction. *American Psychologist*, 53, 1199–1208.

Marlatt, A. G. (1998). *Harm Reduction: Pragmatic Strategies for managing High-Risk Behaviour*. New York: The Guilford Press.

Prochaska, J. O., DiClemente, C. C., & Norcross, J. C. (1992). In search of how people change: Applications to Addictive behaviours. *American Psychologist*, 47 (9), 1102-1114.

Rohrbaugh, J., & Jessor, R. (1975). Religiosity in youth: A control against deviant behaviour. *Journal of Personality*, 43, 136-155.

Rhelm J. Rehm, D. Baliunas, S. Brochu, B. Fischer,W. Gnam,J. Patra, S. Popova, A. Sarnocinska-Hart, B. Taylor (2002). The Cost of Substance Abuse in Canada. *Statistics Canada*, 1-12

Statistics Canada, (2009) *Health Canada's Drug and Alcohol Use.* Ottawa

Tatarsky, A. (2003). Harm reduction Psychotherapy: Extending the reach of traditional Substance abuse treatment. *Journal of Substance abuse treatment*, 25, 249-256.

Wallston, K.A., Wallston, B. S., & DeVellis, R. (1978). Development of the Multidimensional Health Locus of Control scales. *Health Education Monographs, 6(2),* 1960-1970.