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SEX DIFFERENCES, PREVIOUS EXPERIENCE WITH SUICIDE,
AND ATTITUDES TOWARDS SUICIDE

by

M. David Wallace

B.A., University of Alberta, 1992

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Psychology
in Partial Fulfilment of the
Requirements for the Degree
of Master of Arts at the
University of Windsor

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ABSTRACT

Although the focus of much research on suicide is increasingly on attitudes towards suicide, no theoretical model of attitudes had yet been applied. The present study applied a model of attitudes (Ajzen, 1988) to an examination of sex differences in attitudes towards suicide and the suicidal among university students regarding three components of attitudes: cognitive, affective, and conative. In addition, the relation between attitudes towards suicide and self-reported previous experience with suicide was investigated. A sample of 773 undergraduates rated a vignette of a suicidal individual (i.e., target) for the degree to which they sympathized and empathized with the target (i.e., affective), the degree to which they perceived the potential suicide as acceptable (i.e., cognitive), and whether or not they would help the individual (i.e., conative). Females had significantly higher ratings of sympathy, empathy, and intention to help than did males. When the evaluator's previous experience with suicide was held constant, however, females had higher ratings of sympathy and intention to help only. Overall, the results indicate sex differences in both the affective and conative components of attitudes. These findings may begin to address the well documented sex difference in suicide completion rates as a function of attitudes, and also may have implications for primary prevention.

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CHAPTER I
INTRODUCTION

The large difference between suicide completion rates for males and females is well documented (e.g., Stillion, White, Edwards, & McDowell, 1989). In the United States, the suicide rate across ages for males (19.9 per 100,000) is almost four times that of females (5.1 per 100,000) (Stillion et al., 1989). Although the overall suicide rate has remained relatively constant over the past century, a recent trend has shown a significant increase in the suicide rate among 15- to 24-year-olds, particularly among males (Klerman, 1987). Young people made up approximately 5% of the total suicides in the United States in the 1960s; but they accounted for 20% of all male suicides and 14% of all female suicides in the early 1980s (Simons & Murphy, 1985). Moreover, the difference between the suicide completion rates of males and females is increasing for the 15- to 24-year-old age group (McIntosh & Jewell, 1986).

The purpose of this study was to help account for the sex difference in rates of completed suicide in the 15- to 24-year-old age group. Thus far, the explanations for this difference have been simple. Given that the vast majority of attempted suicides are by females (Klerman, 1987; Stephens, 1985; Trautman & Shaffer, 1984), it has been

argued that the sex difference in suicide completion rates can be accounted for by a difference in the lethality of methods chosen by the two sexes (Carlson & Miller, 1981; Rich, Young, & Fowler, 1986). A second hypothesis is that the each sex is equally successful, but that more men than women actually intend to commit suicide. The majority of the recent research supports this second hypothesis (e.g., Rich, Ricketts, Fowler, & Young, 1988); however, both hypotheses leave many questions to be answered. For example, why do males choose more lethal methods? And, why do more suicidal males have a greater intent to die? More recent research in suicidology has focused on such variables as the sex difference in the use of suicide prevention centres, finding that males are less likely to make use of such resources (e.g., Miller, Coombs, Leeper, & Barton, 1984; cited in McIntosh & Jewell, 1986).

Yet few studies have focused on attitudes towards suicide, and even fewer have examined the attitudes of this high-risk 15- to 24-year-old age group. There are two ways in which attitudes may help explain the sex difference in suicide completion rates. First, a study of attitudes would help predict how others might respond to an individual who is considering suicide. For example, do males and females have different attitudes towards a peer who mentions suicidal intentions to them? If there is a sex difference in attitudes, then this difference might be reflected in the

approach that males and females take towards helping a suicidal peer. This difference could well be the difference between life and death for some individuals. Second, a study of attitudes is useful for it allows for a comparison between groups (i.e., males and females) who are at different levels of risk for completed suicide, to see if their respective attitudes towards suicide differ. For instance, a study of attitudes could help identify whether males and females differ in their assessment of the acceptability of the suicidal act.

The Psychology of Attitudes

Attitudes have long been an area of study in social psychology. Many researchers have accepted Thurstone's (1946) definition of an attitude as the intensity of positive or negative affect for or against a psychological object (cited in Worchel, Cooper, & Goethals, 1989). Specifically, this study will define an attitude as "an individual's disposition to respond favorably or unfavorably to an object, person, institution, or event" (Ajzen, 1989, p. 241). The object, person, institution, or event is usually referred to as the attitude object. Note also that attitudes have an evaluative dimension, such that a favourable response suggests a positive attitude, whereas an unfavourable response suggests a negative attitude.

Within the broad area of attitudes, much research has focused on the degree to which attitudes predict behaviour,

but no clear conclusions have been found (e.g., Fazio & Zanna, 1978; Sherman & Fazio, 1983). While some research has concluded that attitudes cannot be used to predict behaviour with any accuracy (Rosenberg & Hovland, 1960), more recent research has reconceptualized new models of attitudes that strengthen the attitude-behaviour link (e.g., Ajzen, 1988). With the application of these new models a more accurate prediction can be made of an individual's future behaviour on the basis of his or her attitudes.

The assumption that an attitude is a latent variable which must be inferred from measurable responses (e.g., Allport, 1954; Hilgard, 1980; Rosenberg & Hovland, 1960) argues in favour of a structural model of attitudes. Ajzen (1988, 1989) outlines such a model, in which there are three types of response categories that can be used to infer attitudes: cognitive, affective, and conative; as well as two response modes: verbal and nonverbal. By grouping attitudes across these three categories, Ajzen argues that the prediction of behaviour from attitudes is much more feasible.

The cognitive component of attitudes, as measured by a verbal response mode, refers to responses that reflect expressions of beliefs or information about an attitude object. For example, rating true or false the statement that 'most suicides are unplanned' would be a verbal cognitive response, as it relates to an assumption about a

belief regarding the act itself. The affective category of responses can be inferred from one's feelings towards an attitude object. For example, rating the degree to which one holds in disdain someone who commits suicide would be a verbal affective response. Finally, responses in the conative category consist of behavioural intentions and inclinations to act. An example of a verbal response of a conative nature would be rating whether or not one would help a particular individual who was considering suicide.

Rosenberg and Hovland (1960) proposed a hierarchical model of attitudes whereby these three components (i.e., cognitive, affective, and conative) are each parallel first-order factors while the overall attitude is a second-order factor; in other words, the overall attitude is a function of the individual three components (cited in Ajzen, 1989). Following this hierarchical model, a measure should include all three types of responses to the attitude object, in order to more accurately predict behaviour.

It is important for future research to follow this multimodal model as the three components of attitudes are often rated in differing ways; therefore, it is more accurate to look at the composite of the components, as the individual components may differ. For example, one can have the attitude that capital punishment is cruel (i.e., affective component) and yet still believe that it is the most useful method for dealing with certain crimes (i.e.,

cognitive component). Similarly, one's knowledge in the area of suicide is not always equivalent with how one might feel or act when faced with a suicidal peer. For example, knowing that suicide is the second leading cause of death among adolescents does not mean that one will be more inclined to help a suicidal peer.

Attitudes and Suicide

Previous research has reported the presence of strong sex differences in attitudes towards suicide (e.g., Deluty, 1989; Stillion et al., 1989). These researchers have found that males and females report different attitudes towards a suicidal individual. In addition, the attitudes of others towards a suicidal individual differ depending on the sex of the suicidal individual, even when other factors are held constant. This issue is socially relevant as attitudes are not fixed in stone. If a certain group receives less peer support, or a certain group is less likely to give positive peer support, then suicide prevention programs can target and tailor information more carefully towards changing the attitudes of these groups.

Kalafat & Elias (1992) point to the importance of peers in preventing suicidal adolescents from progressing to completed suicide. And, conceivably, peers continue to play an important role in suicide prevention for all of those aged 15 to 24. The importance of peer support in preventing suicide cannot be understated. Not only is a young person

with suicidal ideation most likely to turn to a peer, but in the majority of cases a peer is the only one that will be approached (Elliott, Kral, & Wilson, 1990). Currently, there is a movement in primary prevention that aims to educate peers on how to respond to individuals considering suicide (e.g., Kalafat & Elias, 1992). Thus, any knowledge of how peers might respond to a suicide crisis will provide important information for future prevention efforts. Namely, this information can help focus education efforts on specific groups of students in specific areas where attitudes are found to be negative.

In sum, attitudes with respect to suicide are important in two ways. First, an individual's attitudes may be predictive of their own future suicidal behaviour (Diekstra & Kerkhof, 1993). And second, a study of attitudes may help identify: a) those groups which have negative attitudes towards suicidal individuals; and b) any subgroup of suicidal individuals who are viewed by others with more negative attitudes than other subgroups.

The following constructs will be used in the present study: sex, experience with suicide issues, and attitudes toward suicide. In the research on suicide, a plethora of predictors have been examined, including age, gender, sex, race, place of residence, education, religion, church attendance, and many others (e.g., Singh, Williams, & Ryther, 1986; Stillion, McDowell, Smith, & McCoy, 1986). So

why examine sex? First, the difference in the completion rates of suicide is consistent across sex more than any other variable. Second, an examination of sex differences in attitudes is of more practical importance than the previously mentioned alternatives. For example, information regarding church attendance might also help differentiate those who are at a higher risk for suicide. There would be difficulties, however, in identifying these individuals. Moreover, only a low number of young people attend church regularly.

Sex is a more readily identifiable variable, so that if attitudes do vary across sex, school-based prevention efforts could more easily focus on changing the attitudes of both sexes independently, if necessary. Significantly, there has been some suggestion that current school-based prevention methods, while being somewhat successful for females, are much less so for males (Overholser, Evans, & Spirito, 1990). More specifically, the research has found that female students are more likely to benefit from the school-based suicide prevention curricula that are currently in use (Overholser et al., 1990; Spirito, Overholser, Ashworth, Morgan, & Benedict-Drew, 1988). Thus, any sex differences in attitudes might illuminate important areas to focus future prevention efforts on.

A second variable which has been reflected in attitudes is experience with suicide issues. For the present study,

experience with suicide will be categorized on the basis of self experience and other-experience. The former refers to occurrences that have happened to the individual, personally (i.e., suicidal ideation, attempts); the latter to occurrences that have happened to someone close to him or her (i.e., family member, friend). A final category will be made up of those with no experience.

For further clarification, self experience will be further grouped into three categories: a) those who have personally attempted suicide with an intent to die; b) those who have personally attempted suicide without an intent to die; and c) those who have seriously considered suicide. Other-experience will also be grouped into three categories: a) those who have had someone close to them commit suicide; b) those who have had someone close to them attempt suicide; and c) those who have had someone close to them discuss suicidal thoughts or intentions with them.

In a study of high-school students, Kalafat & Elias (1992) found that, in comparison to male adolescents, a higher percentage of female adolescents report knowing someone who attempted suicide as well as someone who has completed suicide. It would be interesting to replicate this finding with a university population. Relatedly, it would also be useful to know whether those who have had more experience with issues relating to suicide have systematically different attitudes than those with less

experience. Overholser, Hemstreet, Spirito, & Vyse's (1989) study only examined the effect of other-experience on attitudes, and there does not appear to be any research that has compared the effect of self experience versus other-experience on attitudes. For example, do those who have attempted suicide have different attitudes than those who have contemplated suicide? If so, these attitudes may be used: a) theoretically, to help explain why some only contemplate suicide and others go on to attempt; and b) clinically, to help predict an individual's possible future suicidal behaviour (i.e., risk assessment) (Diekstra & Kerkhof, 1993).

Attitudes towards suicide have been defined in the literature in many different ways. Some have defined attitudes on the basis of three factors: sympathy, empathy, and agreement with the suicidal act (Stillion, McDowell, & Shamblin, 1984; Stillion et al., 1986; Stillion et al., 1989; White & Stillion, 1988). The sympathy, empathy, and agreement variables were chosen on the basis of several factor analyses of two separate forms of the Suicide Attitude Vignette Experience Scale (SAVE; Stillion, McDowell, & Shamblin, 1984), and have important practical implications. A measure of sympathy provides information about whether people have more positive or negative feelings towards an individual who is considering suicide. A measure of empathy provides some sense as to whether the

participants can identify with the suicidal individual and understand his or her feelings, which is an important factor in suicide prevention (Jacobs, 1989). Finally, the degree to which participants agree with the suicidal act provides some evidence as to whether males and females differ in viewing suicide as justifiable.

Stillion, McDowell, & Shamblin (1984) found that females reported higher levels of sympathy towards suicidal individuals than did males. In addition, these researchers reported that female participants had higher ratings of sympathy and empathy towards suicidal persons who were female. The strength of Stillion's approach is her use of vignettes to assess attitudes towards suicide, rather than simply asking people what they think (e.g., Marks, 1989). It is thought that more ecologically valid answers will be given when asking individuals how they would respond to a scenario, rather than asking them general questions regarding their attitudes towards suicide. Using vignettes also allowed the researchers to manipulate different aspects of a suicide while holding other factors constant.

Stillion et al. (1989) examined the effects of age and sex of the participant and age and sex of the suicidal individual on the attitudes of subjects. Young females attempting suicide received the highest levels of sympathy from young and old males and females. In addition, it appeared that young (i.e., undergraduate) male participants

agreed most with the suicidal action for all four groups of suicidal individuals (i.e., young and old males and females) than did other participants. This finding suggests that young males view suicide as a more viable option than females. The main weakness of the SAVE Scale is that it uses a set of short scenarios rather than a single scenario. As a result, the extent to which the participant identifies with the particular suicidal individual may vary according to several factors particular to each scenario. Further, the use of a set of vignettes alternating between male and female might alert the participants to the purpose of the study. Finally, the SAVE Scale was designed to assess the attitudes of adolescents. As a result, the content of the scenarios is somewhat less age-appropriate for university students, as most of the suicidal individuals in the SAVE Scale are high school students.

Deluty (1989) defined attitudes in terms of the perceived acceptability of suicide. He examined various participant perceptions of an individual's decision to commit suicide, in addition to whether participants would help the person if they were a friend. Most importantly, participants were asked to what extent the person's decision to commit suicide was acceptable.

Deluty (1989) examined whether these attitudes towards suicide varied as a function of the age and sex of the suicidal individual in the vignette, the sex of the

participant, and the type of illness that precipitated the suicide. The age of the suicidal individual was set as either 45 or 75. Rather than using a series of short vignettes, the researcher used only one standardized vignette and thus decreased the possibility of a response set bias and also better concealed the purpose of the study. In the results, suicides by females were evaluated more negatively than by males. In addition, female participants were, regardless of age, more unaccepting of suicide than were male participants. These results suggest that suicide may be viewed by others as a more acceptable alternative for males considering suicide than females considering suicide.

In an analysis of how certain demographic variables relate to previous experience with suicide as well as attitudes towards suicide, Marks (1989) reported that more than half of his sample of 491 Arkansans knew someone who had either committed or tried to commit suicide. Moreover, compared to females, males were significantly more likely to agree with a general statement that a person has a right to commit suicide. This finding adds further weight to the suggestion that suicide might be seen as a more acceptable option by males.

Likely the first systematic study of the attitudes of university students towards suicide was conducted in the late 1970s by Domino, Moore, Westlake, & Gibson (1982). A factor analysis of 285 respondents to a 100-item

questionnaire called the Suicide Opinion Questionnaire (SOQ) was interpreted by the researchers as having 15 factors, thus underscoring "the complexities of such attitudes" (Domino et al., 1982, p. 257). In a later study of 800 university students, Domino, Gibson, Poling, & Westlake (1980) note that, while there are areas that require educational action to correct misguided beliefs regarding suicide, "it is reassuring that most students appear to have both sensible and sensitive attitudes towards suicide" (p. 130). This conclusion is premature. Domino's approach concentrates almost solely on the cognitive component to attitudes; therefore, a conclusion regarding 'sensitivity' is unsubstantiated. Moreover, it has been argued that "the lack of consensus regarding the scoring and interpretation of the SOQ, considered in conjunction with the lack of reliability estimates, brings into question its usefulness as a measure of attitudes towards suicide" (Rogers & DeShon, 1992, p. 429).

The tripartite hierarchical model can be applied to the majority of the research on attitudes towards suicide. By asking subjects about their knowledge and beliefs regarding suicide, both Marks's (1989) study and the majority of Domino's Suicide Attitude Questionnaire (SOQ; Domino et al., 1982), assess the cognitive component. Although Deluty's (1988) acceptability scale requires the subjects to rate the suicide on a semantic differential, this construct is more

related to the cognitive component of attitudes than it is to the affective component, as feelings are not involved. In addition, his evaluation scale, made up of six attitudes that are summated to find an overall attitude, appears to also tap mainly the cognitive component.

While the vast majority of the research on attitudes towards suicide has been focused on the cognitive aspect of attitudes, there have been some attempts to focus on the affective and conative components of the tripartite model. The empathy and sympathy scales used in the SAVE Scale (Stillion, McDowell, & Shamblin, 1984) assess the affective component of attitudes. In addition, Deluty (1988, 1989) included a question as to whether the participant would do everything to convince the suicidal individual, a friend, not to commit suicide. While he interpreted this question as relating to the acceptability of suicide (i.e., the cognitive component), it is more accurate to categorize this question as relating to the conative component of attitudes, as it asks for a behavioural inclination by asking subjects what they 'would do.' Based on the assumption that all three of these components must be examined in order to more accurately evaluate attitudes, research is needed that assesses the cognitive, affective, and conative aspects.

A Structural Model of Attitudes Towards Suicide

The present study combined aspects of the cognitive, affective, and conative components to examine attitudes in

terms of four factors: acceptability (i.e., cognitive), sympathy and empathy (i.e., affective), and intention to help (i.e., conative). The individual in the vignette considering suicide will be referred to as a target. The individual who was rating the vignette on the four factors will be referred to as an evaluator (i.e., the participant).

The sympathy measure will provide information as to whether the sex of the evaluator or target or both affects the degree to which participants can sympathize with the target. Sympathy will be defined as "the amount of compassion felt towards the target." If males sympathize less with targets, then it is possible that individuals considering suicide may be less likely to approach males for help, although no known research has addressed this question. Moreover, given the finding that male targets are perceived with less sympathy than are female targets (Stillion et al., 1989), then it is likely that males would likely receive less support during a suicide crisis than if they were of the opposite sex.

But beyond simple caring, to what extent does sex affect the degree to which people can empathize with a suicidal individual? Empathy will be defined as "the ability to place yourself in the person's position and feel what he or she is feeling" (Stillion et al., 1989, p. 250). Does the sex of the suicidal individual influence the degree to which a peer empathizes? Empathy is one of the most

important factors in suicide prevention when working with suicidal individuals (Jacobs, 1989). Therefore, if this latter question is substantiated, it might suggest that males considering suicide would receive less succour than would females.

Does the sex of the evaluator or target or both affect the degree to which the suicide of the target is perceived as acceptable? It would be useful to know whether one sex views suicide as more acceptable. For example, do males in general perceive suicide as more acceptable? On the other hand, if suicide is seen as more acceptable for targets of a certain sex, then this information might also help account for the sex difference in completion rates of suicide. Potential interveners might be less committed to their efforts if they believe that suicide is more of an acceptable solution for this individual. Finally, does the sex of the evaluator and target affect ratings of acceptability? For example, do males agree more with suicide only when the target is male?

Does the sex of the evaluator or target or both affect the decision as to whether or not the evaluator would be inclined to help the suicidal individual? Is one sex more likely to state that they would come to the aid of a suicidal individual? Are suicidal individuals of a certain sex more likely to be helped by their peers? Or, is one sex of evaluators more likely to be inclined to come to the aid

of a suicidal individual, but only when the suicidal individual is a member of a certain sex? Given the estimate that approximately 80% of those who complete suicide have talked with a peer prior to the act (Elliott, Kral, & Wilson, 1990), it is vital in an examination of attitudes to assess whether people will actually help, as sympathy and empathy alone are not enough.

An obvious problem in this area of research is that what an individual rates as his or her attitudes may or may not be consistent with how he or she would actually act in real life. This point is an even more incisive criticism for the majority of the research on attitudes towards suicide, which simply asks people about their general opinions and beliefs (i.e., the cognitive component); see Domino et al., 1980; Limbacher & Domino, 1986; Marks, 1989; and Wellman & Wellman, 1986.

Although some have argued that a strong predictive relationship exists between attitudes and behaviour (Festinger, 1964; cited in Fazio & Zanna, 1978), others emphasize the importance of individual differences (e.g., Zanna, Olson, & Fazio, 1980). These individual differences, however, are of less consequence as this study is examining for group (i.e., male versus female) differences in attitudes. And, to my knowledge, there are no known sex differences in the degree of correspondence between ratings of attitudes and behaviours.

But simply using vignettes does not guarantee an ecologically valid study. In Droogas, Siiter, & O'Connell's (1982) examination of attitudes towards suicide, the researchers warn that evaluators "are more likely to display some acceptance of suicide when they are asked to make judgements of abstract situations..." (p. 142). The present study will heed this warning by attempting to construct a vignette whereby most students, regardless of their sex, will be able to identify with the situation of the target. It is hoped that by using a realistic vignette containing risk factors that are fairly universal among young suicidal persons the ratings will be at least more consistent with how males and females would act in real life towards a suicidal individual.

Rationale

In 1986, there were 5025 reported suicides in the U.S. in the 15- to 24-year-old age group (White & Stillion, 1988). Of these, 4161 (83%) were by males, and 864 (17%) were by females, a ratio of 4.8 to 1. While a considerable amount of research has examined the demographics of suicide, few studies have investigated the attitudes of this age group. Theoretically, any sex difference in attitudes may help to account for the sex difference in suicide completion rates. And, given the importance of peer support in preventing suicide (Kalafat & Elias, 1992), any information about attitudes would also be of practical use.

This knowledge regarding attitudes might in turn be used to help direct future primary prevention efforts. As has been previously discussed, if suicide is viewed as more acceptable by male evaluators, then prevention efforts could emphasize alternative solutions. If male targets are viewed with less sympathy, prevention programs could focus more on altering this harmful attitude. Or, if male evaluators have more negative attitudes towards suicidal targets and are less likely to help, then a new focus might emphasize teaching males to respond to a suicidal cry and not ignore it.

While studies have examined the general attitudes of both adolescents and young adults (i.e., 18-24), the only known studies to use the more ecologically valid vignettes to assess attitudes have focused on adolescents (e.g., Stillion, McDowell, & May, 1984; Stillion, McDowell, & Shamblin, 1984; Stillion et al., 1989; White & Stillion, 1988), males (e.g., Deluty, 1988; Droogas et al., 1982), or on young adults rating middle aged or elderly adults (e.g., Deluty, 1989). This study will examine the attitudes of male and female young adults towards their own peer group. In part, this study is an extension of the ideas of Stillion et al. (1989), and Deluty (1989). From the former it borrows the constructs of sympathy and empathy (i.e., affective component); from the latter the constructs of acceptability (i.e., cognitive component) and intention to

help (i.e., conative component).

In sum, this study will attempt to answer three questions. First, what is the reported prevalence of experiences relating to suicide in university students aged 18 to 24? Second, do perceptions of sympathy, empathy, acceptability of the suicidal act, and intention to help differ between males and females, depending on the sex of the person considering suicide? And third, what effect does experience with issues relating to suicide have on these attitudes?

On the basis of previous research, a number of hypotheses can be made. It has been found that females are more sympathetic towards suicidal targets (Stillion, McDowell, & Shamblin, 1984), and also that suicidal females receive more sympathy than do suicidal males (White & Stillion, 1988). Based on this evidence, the following hypotheses will be tested: first, female evaluators will have higher ratings of sympathy towards all targets than will male evaluators; and second, female targets will receive higher ratings of sympathy than will male targets.

It has generally been found in the research on empathy that females are more empathic than are males (e.g., Hoffman, 1977). With respect to suicide, both Stillion, McDowell, & Shamblin (1984) and White & Stillion (1988) found that female evaluators were more empathic towards suicidal targets than were male evaluators. There have been

no consistent results of different levels of empathy for male and female targets. Therefore, the hypothesis that female evaluators will have higher ratings of empathy than male evaluators regardless of the sex of target will also be assessed.

Based on both the sex difference in suicide completion rates and previous studies on attitudes (e.g., Deluty, 1989; Marks, 1989), the following two hypotheses can be made. First, the acceptability of suicide will be rated higher by male evaluators than by female evaluators. And second, suicide will also be rated as more acceptable when the target is male regardless of the sex of the evaluator.

With respect to the conative variable, Deluty (1989) found that: a) female evaluators were more likely than male evaluators to state that they would help a friend; and b) evaluators were more likely to report that they would help a female target than a male target, regardless of the sex of evaluator. In short, females were both more likely to help and be helped. It is therefore predicted that more female than male evaluators will state that they would help the suicidal target. A second hypothesis is that evaluators, regardless of their sex, will be more likely to help a female target than a male target.

In a study of the attitudes of high school students, Overholser et al. (1989) found that individual experience with a peer who attempted suicide had little affect on the

attitudes of students. In this study, attitudes were made up of both an experiential aspect (e.g., feeling uncomfortable with a suicidal individual) and an evaluative aspect (e.g., teenagers who commit suicide are weak). Similarly, Limbacher & Domino (1986) report that "the attitudes [regarding acceptability] of those familiar with suicide, because of an immediate family member, a close relative, a close friend or an acquaintance committed suicide, did not significantly differ from each other, or from others having no association with suicide" (p. 332). The same researchers did find, however, that suicide attempters and suicide contemplators were more accepting of suicide. Therefore, in the current study evaluators with self experience are expected to have higher ratings of acceptability than are those with other-experience or no experience. In addition, it is plausible that individuals with any kind of experience will be better able to sympathize and empathize with others who may be going through a similar experience. Therefore, it is also predicted that evaluators who admit to any kind of experience will have higher ratings of sympathy and empathy.

CHAPTER II

METHOD

Participants

Seven hundred and seventy-three university students participated in the study, with 537 (69.5%) being female. The ages ranged from 17 to 53, with the mean age being 21.6 (standard deviation 5.0).

Measures

Peer attitudes towards suicide. This section was made up of a short vignette followed by four questions on attitudes. Specifically, participants rated their sympathy and empathy on a seven-point (i.e., Likert type) dimensional scale. Participants also rated the acceptability of the suicide on a seven-point semantic differential, with the two poles being "acceptable" and "unacceptable." In addition, participants rated whether they would help the individual or not, by answering on a four-point scale, with the two poles being "yes" and "no." These four questions were presented in a counterbalanced order.

Personal experience. Six questions asked about whether certain events have happened in the participant's life, answered in a yes or no fashion. Ten follow-up questions were also included, to be answered only if participants responded in the affirmative to the previous question on experience with suicide. Three ask about the relationship

of the significant other to the participant, three ask how close they had been to the individual, two ask about the method used in their attempt, and two ask for the number of times the prior event occurred. A complete copy of the survey is in Appendix B.

Vignette. Given that no known vignette has been used to assess the attitudes of university students towards a suicidal peer, a new vignette was constructed (see Appendix A). Although Deluty (1989) examined the attitudes of university students, the age of the target in his study was either 45 or 75. In the present study, the age of the target in the vignette was left out, and the target will instead be referred to as a "university student."

Procedure

After entering the classroom, the experimenter first explained that the purpose of the study was to learn about people's attitudes towards suicide. Participants were then told that they would be reading a scenario about an individual who has decided to commit suicide. They were then told that they would be evaluating this situation, and finally answering a few questions about their own experience with issues relating to suicide. Participants were further told that their responses would be anonymous, but they were asked to record their age and sex.

There was an ethical concern that some participants may had been currently either experiencing suicidal ideation, or

know of someone who is, and as a result may be made upset by the questionnaire. Phone numbers for various intervention agencies were included on a resource sheet, which was left with each participant. In addition, the consent form pointed out that the survey deals with matters that are potentially upsetting to some people. It was made clear that participation was completely voluntary, that they were free to leave at any time without penalty, and that they were free to refrain from answering any questions that they wished to omit. Finally, participants were told that the questionnaire would take from fifteen to thirty minutes to complete. All data was be collected by the author and two assistants.

CHAPTER III

RESULTS

For the analysis of the sex difference in attitudes, the four attitudes (sympathy, empathy, acceptability, and helping) were examined across both the sex of the evaluator and the sex of the target. Table 1 displays the mean ratings for the four attitudes across the sex of the evaluator, as well the univariate F from each analysis of variance (ANOVA). Females had higher ratings of sympathy, empathy, and intention to help.

There were, however, no significant differences in the rated attitudes of the participants across the sex of the target. The evaluators' rated attitudes did not differ significantly when the target was male than when the target was female. In addition, there were no sex of evaluator by sex of target interactions in the ratings of the four attitudes.

Table 1

Sex Differences in Means of Rated Attitudes

Attitude	Male	Female	F
Sympathy	5.24	5.89	47.28***
Empathy	4.20	4.53	5.50*
Acceptability	2.03	2.09	0.21
Intent to Help	3.75	3.90	17.22***

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

For the analysis of experience, participants were placed in one of seven categories based on a yes or no response to each of six questions. The seven categories are: a) those who have personally attempted suicide with an intent to die, b) those who have personally attempted suicide without an intent to die, c) those who have seriously considered suicide, d) those who have had someone close to them commit suicide (i.e., friend, family member), e) those who have had someone close to them attempt suicide, f) those who have had someone close to them discuss suicidal thoughts or intentions with them, and g) those with no experience. Those subjects who fell in one of the first three categories were also more broadly grouped into the self experience category (i.e., a, b and c), while those who

fell into one of the next three points were grouped into the other-experience category (i.e., d, e, and f).

With respect to these experience categories, the sample was separated two ways. First, it was split into the seven specific categories as was previously discussed. Of the 773 subjects, only 10.3 percent said that they had never known anyone who has engaged in suicidal behaviour and had never seriously considered suicide or engaged in suicidal behaviour themselves (i.e., no experience). A full half of the sample knew someone who had committed suicide, and over two-thirds knew at least one person who had attempted suicide. Over 11 percent of the sample has attempted suicide without an intent to die, and approximately 6 percent admitted to attempting suicide with an intent to die. A full two-hundred and twenty subjects, making up 28.3 percent of the sample, disclosed that they have seriously considered suicide. Table 2 describes the breakdown of the sample with respect to experience.

Table 2

Participants' Previous Experience With Suicide

Experience Category	Frequency	Percentage
NO EXPERIENCE	77	10.3
OTHER-EXPERIENCE		
Knew suicide completer	384	49.7
Knew suicide attempter	521	67.4
Knew suicidal ideator	442	57.2
SELF EXPERIENCE		
Attempted without intent	87	11.3
Attempted with intent	49	6.3
Seriously considered	220	28.5

Table 3 displays the breakdown of these experience categories with respect to sex. There was a sex difference in three of the experience categories, where a greater number of females than males have: a) known a suicide attempter ($\phi = .098, p < .01$), b) had an individual talk with them about committing suicide (i.e., know ideator) ($\phi = .159, p < .001$), and c) attempted suicide without an intent to die ($\phi = .119, p < .001$). There were no statistically significant differences between males and females in knowing a suicide completer or in suicide attempts with an intent to

die.

Table 3

Participants' Previous Experience With Suicide as a Function of Sex

Experience Category	Male	Female	Phi
	Percent	Percent	
NO EXPERIENCE	11.7	9.4	
OTHER-EXPERIENCE			
Knew suicide completer	48.7	50.1	.013
Knew suicide attempter	60.6	70.5	.098**
Knew suicidal ideator	45.3	62.4	.159***
SELF EXPERIENCE			
Attempted without intent	5.6	13.8	.119***
Attempted with intent	4.3	7.3	.056
Seriously considered	26.2	29.9	.038

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

The sample was also separated into the broad experience categories (i.e., none, self, other, and both). To reduce the possible overlap in the categories of experience, these categories were mutually exclusive. For example, subjects who were included in the "self" category of experience only had this type of experience, and had no contact with another

person's suicidal behaviour or intentions. Table 4 summarizes this data. There were no statistically significant sex differences in these four categories. Especially notable is that only 10 percent of the sample claimed to have no prior contact with suicide. Please note that in this case there were twelve missing pieces of data. Given the delicate nature of the questions being asked, it was not unexpected that many surveys were returned with the odd question omitted; nevertheless, the rest of their data was not excluded.

Table 4

Frequencies of Types of Previous Experience With Suicide

Experience Category	Frequency	Percentage
None	77	10.1
Self only	20	2.6
Other- only	429	56.4
Both	235	30.9
TOTAL	761	

The sample was drawn from undergraduate classes in psychology. Participants received bonus marks for taking part in the study.

Correlational Analysis

As can be seen in the correlation tables (see Tables 5, 6, and 7), sex is significantly correlated with several dependent variables. Being females was correlated with having higher ratings of sympathy ($r=.24$, $p<.01$), empathy ($r=.09$, $p<.05$), and helping ($r=.15$, $p<.01$). Being female was also correlated with many other-experience variables, such as knowing an attempter ($r=.10$, $p<.01$), the closeness of the attempter ($r=.18$, $p<.01$), and having had someone talk to them about suicide (i.e., knowing an ideator) ($r=.16$, $p<.01$). Being female was correlated with the self experience variable of having attempted suicide without an intent to die ($r=.12$, $p<.01$). In addition, being female was correlated with being a multiple attempter, whether with an intent to die ($r=.07$, $p<.05$) or without an intent to die ($r=.12$, $p<.01$). Given these correlations between the independent variables, it was necessary to control for the experience variables in order to examine for sex differences.

Also noteworthy is that the sex of the target (i.e., being male or female) did not correlate significantly with any of the dependent variables. In other words, sympathy, empathy, acceptability, and intention to help ratings did not differ across the sex of the target.

Table 5

Correlations Between All Variables and Primary Variables

VARIABLE	1	2	3	4	5	6
1. Sympathy	1.00					
2. Empathy	.31**	1.00				
3. Acceptability	.09*	.25**	1.00			
4. Intention-Help	.28**	.05	-.08*	1.00		
5. Male Eval.	-.24**	-.09*	-.02	-.15**	1.00	
6. Male Target	-.00	.06	.02	.02	-.05	1.00
OTHER-EXPERIENCE						
7. Know-Suicide	-.00	.07	-.00	.00	-.01	-.02
8. Close-Suicide	-.03	.10	.14**	.00	.02	.02
9. Know-Attempter	.03	.08*	.09*	.07	-.10**	.02
10. Close-Attempter	.06	.13**	.13**	.05	-.18**	-.05
11. Know-Ideator	.14**	.19**	.18**	.12**	-.16**	-.01
12. Close-Ideator	-.01	.05	.02	.01	.01	-.05
SELF EXPERIENCE						
13. Attempt Without	.12**	.19**	.25**	-.04	-.12**	-.06
14. # Attempts Without	.06	.23**	.21	.15	-.14	-.03
15. Attempt With	.07	.17**	.20**	.01	-.06	-.01
16. # Attempts With	-.04	.06	.25	.11	-.20	.08
17. Ideate	.10**	.32**	.28**	.00	-.04	-.00
MEAN	5.69	4.43	2.07	3.90		
SD	1.25	1.72	1.50	0.44		

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

Table 6

Correlations Between All Variables and Other-Experience

VARIABLE	7	8	9	10	11	12
1. Sympathy	-.00	-.03	.03	.06	.14**	-.01
2. Empathy	.07	.10	.08*	.13**	.19**	.04
3. Acceptability	-.00	.14**	.09*	.13**	.18**	.02
4. Intention-Help	.00	.00	.07	.05	.12**	.01
5. Eval-Male	-.01	.02	-.10**	-.18**	-.16**	.01
6. Target-Male	-.02	.02	.03	-.05	-.01	.05
OTHER-EXPERIENCE						
7. Know-Suicide	1.00					
8. Close-Suicide	.	1.00				
9. Know-Attempter	.15**	.14**	1.00			
10. Close-Attempter	.08	.19**	-.05	1.00		
11. Know-Ideator	.07	.17**	.24**	.34**	1.00	
12. Close-Ideator	.15**	.07	.12**	.29**	.	1.00
SELF EXPERIENCE						
13. Attempt Without	.03	-.05	.13**	.20**	.17**	.06
14. # Attempts Without	.13	.15	.19	.05	.26*	-.04
15. Attempt With	.06	.06	.08*	.23**	.15**	.08
16. # Attempts With	-.03	-.01	.04	.20	.24	.25
17. Ideate	.04	.13*	.15**	.24**	.19**	.21**
MEAN	2.45		3.65		4.23	
SD	1.31		1.31		0.96	

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

Table 7

Correlations Between All Variables and Self Experience

VARIABLE	13	14	15	16	17
1. Sympathy	.12**	.06	.07	-.04	.10**
2. Empathy	.19**	.23*	.17**	.06	.32**
3. Acceptability	.25**	.21	.20**	.25	.28**
4. Intention-Help	-.04	.15	.01	.11	.00
5. Eval-Male	-.12**	-.14	-.06	-.20	-.04
6. Target-Male	-.06	-.03	-.01	.08	.00
OTHER-EXPERIENCE					
7. Know-Suicide	.03	.13	.06	-.03	.04
8. Close-Suicide	-.05	.15	.06	-.01	.13*
9. Know-Attempter	.13**	.19	.08*	.04	.15**
10. Close-Attempter	.20**	.05	.23**	.20	.24**
11. Know-Ideator	.17**	.26*	.15**	.24	.19**
12. Close-Ideator	.06	-.04	.08	.25	.21**
SELF EXPERIENCE					
13. Attempt Without	1.00				
14. # Attempts Without		1.00			
15. Attempt With	.28**	.11	1.00		
16. # Attempts With	-.24	.57*		1.00	
17. Ideate	.28**	.07	.38**	-.11	1.00
MEAN		1.54		1.38	
SD		0.96		0.68	

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

Analyses of Covariance

Analyses of covariance were then used to examine the various predictors of the four attitudes (sympathy, empathy, acceptability, and intention to help). These analyses were performed using the general linear model, whereby regression equations were calculated. The four attitudes were the dependent variables, with the sex of the evaluator, the sex of the target, and the experience categories the predictors. As has been already discussed, the experience categories were made up of the following: a) those who have personally attempted suicide with an intent to die (i.e., attempt with intent), b) those who have personally attempted suicide without an intent to die (i.e., attempt without intent), c) those who have seriously considered suicide (i.e., ideate), d) those who have had someone close to them commit suicide (i.e., friend, family member), e) those who have had someone close to them attempt suicide, and f) those who have had someone close to them discuss suicidal thoughts or intentions with them.

In addition, two interaction terms were included in the analyses. These terms were calculated by multiplying the number of suicide attempts that the subjects reported, for both those with and without intent, by whether or not the subject has ever attempted. The addition of these two variables allowed for an examination not only of the

influence of suicide attempts on attitudes, but also of the influence of the number of times that the person has attempted.

It is routine before performing a statistical analysis to inspect the distributions of the variables. The distributions of two of the variables of interest, acceptability and helping, demonstrated skewness and kurtosis. In the case of acceptability, a logarithmic transformation may improve the form of the distributions and thus decrease the possible attenuation of R (multiple correlation coefficient). The transformation of acceptability, however, had little affect on R (untransformed $R = .354$, transformed $R = .334$). Moreover, given that the present study is testing for sex differences using an analysis of covariance format, R is of little interest. In addition, such a transformation would make the interpretation of the results much more difficult (Tabachnick and Fidell, 1989). Therefore, it was decided to retain the untransformed variables for the analysis.

With respect to the skewness of the distribution of responses in the intention to help variable, there is no adequate method to transform this data into a more normalized distribution. The data for this variable was thus analysed in an untransformed manner.

The analyses of each of the four dependent variables that follow included two steps. First, a standard

regression (i.e., simultaneous) procedure was applied whereby all of the independent variables were entered into the equation at the same time. This procedure will illuminate whether differences in the sex of evaluator, the sex of target, and their interaction, can explain the variance in the responses of the dependent variable. For example, the question of whether females have higher ratings of sympathy towards female targets can be addressed.

Second, a hierarchical approach was used to enter the variables into the equation, allowing for the experience categories to be accounted for *before* determining the effect of sex on attitudes. In other words, the experience categories were used as covariates, whereby any sex differences would have to be over and above any differences in the dependent variable due to previous experience. For example, do female evaluators still have higher ratings of sympathy when previous experience with suicide has been held constant?

The experience variables were entered in the analysis in two blocks: first, the self experience variables were entered; and second, the other-experience variables were entered. It was expected that the other-experience variables would have a greater influence on the rated attitudes of participants than would self experience, given that they were rating vignettes of a potential peer. Moreover, it was expected that the sex of the evaluator and

the sex of the target would influence rated attitudes more than either form of experience, and sex was therefore entered in the third and final block. Entering sex in the final block also allows one to examine whether sex differences are present after experience is held constant.

Sympathy. With the analysis of covariance calculated through the standard regression procedure, the overall model for sympathy was significant, $F(14,728) = 5.123$ $p < .0001$. There was a main effect for the sex of evaluator, but the sex of the target and the interaction between the sex of the evaluator and the sex of the target had no effect on sympathy scores. Female evaluators had higher ratings of sympathy towards the target than did male evaluators, $Beta = -.716$, $F(14,728) = 28.08$, $p < .0001$.

For the hierarchical approach, Table 3 displays the standardized regression coefficients for all three blocks and their F values, as well as the standardized regression coefficients for each of the variables within the three blocks and their respective F values.

In effect, the sex of the evaluator had an effect on sympathy scores in the predicted direction, even after both self and other-experience had been entered. More specifically, females had higher rates of sympathy across the sex of target, even when prior experience with issues relating to suicide was held constant. Females did not, however, have higher sympathy ratings for female targets

when previous experience was held constant (Beta = -0.042, $F(1,728) = 0.638$, $p > .05$) and the sex of the target also had no effect on the sympathy ratings (Beta = -0.034, $F(1,728) = 0.627$, $p > .05$). Of note is that the participants who have had someone in their past talk to them about thinking about committing suicide (i.e., "know ideator" variable) also had higher sympathy scores (Beta = 0.097, $F(1,728) = 6.592$, $p < .01$).

Table 8

Analysis of Covariance (Hierarchical Regression) of Sympathy

Variables	Beta	F
Self Experience		
Without	0.011	0.030
With	-0.036	0.211
Ideate	0.062	2.500
Attempts without	0.064	0.954
Attempts with	0.032	0.155
Other-Experience		
Know suicide	-0.021	0.336
Know attempter	-0.043	1.322
Know ideator	0.097	6.592**
Sex		
Sex of evaluator	-0.258	27.511***
Sex of target	-0.034	0.627
Interaction	-0.042	0.638
Model		6.394***

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

Empathy. In the analysis of covariance of the dependent variable empathy, it had been predicted that females would have higher ratings of empathy than would

males towards all targets. A standard multiple regression format ($F(14,728) = 8.685, p < .0001$) first showed that there were no evaluator sex differences in the empathy ratings. Despite the statistically significant correlation between being female and higher empathy ratings ($r = .09, p < .05$), there was no significant main effect for the sex of the evaluator ($F(1,728) = 2.036, p > .05$). After previous experience was held constant, the sex of the evaluator, the sex of the target, and their interaction all had no significant effect on empathy ratings (see Table 9). In effect, when experience is held constant there are no significant sex differences in empathy.

Having personally seriously considered suicide, and not having made an attempt, was the single best predictor of one's rated empathy towards a suicidal individual (Beta = 0.251, $F(1,728) = 43.434, p < .001$). The second best predictor was having had someone talk to oneself about committing suicide (i.e., know ideator) (Beta = 0.102, $F(1,728) = 7.818, p < .01$).

Table 9

Analysis of Covariance (Hierarchical Regression) of Empathy

Variables	Beta	F
Self Experience		
Without	0.071	1.263
With	0.036	0.214
Ideate	0.251	43.434***
Attempts without	0.060	0.894
Attempts with	-0.005	0.003
Other-Experience		
Know suicide	0.042	1.462
Know attempter	-0.002	0.004
Know ideator	0.102	7.818**
Sex		
Sex of evaluator	-0.066	1.911
Sex of target	0.043	1.100
Interaction	0.048	0.870
Model		10.845***

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

Acceptability. The model for the analysis of covariance of acceptability using a standard regression analysis was statistically significant, $F(14, 728) = 7.920$,

$p < .0001$. The ratings of acceptability were not significantly affected by the sex of evaluator (Beta = 0.224, $F(1,728) = 2.043$, $p > .05$), the sex of target (Beta = 0.176, $F(1,728) = 2.007$, $p > .05$), or the interaction of the sex of the evaluator and the sex of the target (Beta = -0.199, $F(1,728) = 0.763$, $p > .05$).

The results are the same when the experience variables are held constant in the hierarchical method: No sex differences were found in ratings of acceptability (see Table 10). Male evaluators did not rate the suicide as more acceptable than female evaluators, and male targets did not receive higher ratings of acceptability than female targets. The significance of the interaction term 'with intent', however, referring to those subjects who stated that they had attempted suicide more than once with an intent to die, indicates that these individuals rated the suicide as more acceptable than those who have attempted suicide with intent on only one occasion, and as more acceptable than those who have attempted suicide without an intent to die on either one or more occasions (Beta = 0.187, $F(1,728) = 5.812$, $p < .05$).

Table 10

Analysis of Covariance (Hierarchical Regression) of Acceptability

Variables	Beta	F
Self Experience		
Without	0.108	2.912
With	0.187	5.812*
Ideate	0.190	24.608***
Attempts without	0.077	1.427
Attempts with	-0.118	2.182
Other-Experience		
Know suicide	-0.026	0.545
Know attempter	0.004	0.011
Know ideator	0.100	6.977**
Sex		
Sex of evaluator	0.061	2.150
Sex of target	0.070	2.132
Interaction	-0.047	0.811
Model		9.589***

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

The single best predictor of acceptability was whether the individual had ever seriously considered suicide him- or herself (Beta = 0.190, $F(1,728) = 24.608$, $p < .001$). It is

those who have considered suicide who appear to view suicide as more acceptable, even more so than those who have attempted suicide, with or without an intent to die. In other words, it is suicidal ideation, and not previous attempts, that is the single best predictor of acceptability. In addition, having had someone talk to you about suicide in the past was related to higher ratings of acceptability (Beta = 0.100, $F(1,728) = 6.977$, $p < .01$).

Intention to help. The final analysis of covariance was performed on the intention to help variable. When all variables were entered into the equation simultaneously, the model was statistically significant ($F(14,728) = 2.701$, $p < .001$). There was a main effect for the sex of the evaluator (Beta = -0.129, $F(1,728) = 7.153$, $p < .01$), but the sex of the target (Beta = 0.014, $F(1,728) = 0.130$, $p > .05$) and interaction of the sex of evaluator and the sex of target (Beta = -0.024, $F(1,728) = 0.118$, $p > .05$) were not significant. More specifically, female evaluators had higher ratings of helping than did male evaluators.

The results of the analysis of covariance with the variables entered hierarchically with intention to help as the criterion variable suggest that the sex of the evaluator is the single best predictor of one's rating of their intention to help (see Table 11). Females were more likely to report an intention to help a suicidal individual regardless of that individual's sex. The sex of the target

had no effect on the ratings of intention to help (i.e., no main effect for the sex of target).

Also noteworthy is that those who have themselves attempted suicide without an intent to die on more than one occasion (i.e., parasuicide), but not those who have attempted suicide with an intent to die, had higher intention to help ratings (Beta = -0.141, $F(1,728) = 7.381$, $p < .01$). In addition, higher ratings of helping were reported by those who have had a suicidal person talk to them about suicide before (Beta = 0.116, $F(1,728) = 7.381$, $p < .01$).

Table 11

Analysis of Covariance (Hierarchical Regression) of
Intention to Help

Variables	Beta	F
Self Experience		
Without	0.078	1.388
With	0.008	0.009
Ideate	-0.006	0.019
Attempts without	-0.141	4.383*
Attempts with	0.020	0.056
Other-Experience		
Know suicide	-0.027	0.560
Know attempter	0.031	0.663
Know ideator	0.116	9.102**
Sex		
Sex of evaluator	-0.136	7.381**
Sex of target	0.014	0.111
Interaction	-0.017	0.101
Model		3.405***

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

Analyses of Variance

Tripartite model of attitudes. A multivariate analysis of variance (MANOVA) was then used to evaluate the

tripartite model of attitudes. The two by two between-subjects MANOVA was performed on three dependent variables: affective (i.e., sympathy and empathy), cognitive (i.e., acceptability), and conative (i.e., intention to help) attitudes. The two independent variables were the sex of the evaluator and the sex of the target. This method is appropriate as some of the dependent variables may be correlated, and a MANOVA analysis will help to determine the relative contribution of the dependent variables in separating males and females. A MANOVA, when combined with the application of a conservative alpha level (e.g., .01), will reduce the probability of a Type I error that may arise with the use of multiple univariate tests (Huberty & Morris, 1989).

With the use of Hotelling-Lawley Trace, a form of Hotelling's T^2 , the combined dependent variables were found to be significantly affected by the sex of evaluator, $F(3,773) = 12.664, p < .001$, but not by the sex of target $F(3,773) = 0.459, p > .05$ or by their interaction $F(3,773) = 0.931, p > .05$ (see Table 12). These results reflect only a weak association between the sex of the evaluator and the combined dependent variables, $\eta^2 = 0.047$.

Table 12

Multivariate Analysis of Variance of Tripartite Model by Sex of Evaluator and Sex of Target

Effect	Hotelling's T ²	F
Sex of evaluator	0.050	12.664***
Sex of target	0.002	0.459
Interaction	0.004	0.931

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

To investigate the impact of the main effect of the sex of evaluator variable on the individual dependent variables, univariate tests were performed (see Table 13). There were significant sex differences for both the affective component (i.e., sympathy and empathy) of attitudes, $F(1,771) = 27.521$, $p < .001$, and the conative component (i.e., intention to help) of attitudes, $F(1,771) = 17.418$, $p < .001$. In effect, females not only had higher affective ratings than males, but they were also more likely to state an intention to help than were males. There was, however, no significant sex difference for acceptability, $F(1,771) = 0.239$, $p > .05$. Moreover, there were no statistically significant sex differences for the three components of attitudes across the sex of the target, and there were no significant differences across the interaction terms.

Table 13

Univariate Tests of Tripartite Model Across Sex of Evaluator and Sex of Target

Effect	Dependent variables	F
Sex of evaluator	Affective	27.521***
	Cognitive	0.239
	Conative	17.418***
Sex of target	Affective	1.312
	Cognitive	0.014
	Conative	0.000
Interaction	Affective	0.915
	Cognitive	0.638
	Conative	0.348

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

The high correlations in the discriminant output (see Table 14) for the univariate tests between the affective and conative components of attitudes together with the discriminant function provide further evidence that these two components best discriminate the sex of the evaluator.

Table 14

Discriminant Analysis of Tripartite Model Across Sex of Evaluator

Variable	Pooled within group correlations between variables and discriminant function	F
<u>Sex of evaluator</u>		
Affective	.8342	26.506***
Cognitive	.0783	0.244
Conative	.6678	17.389***
Canonical Correlation = .2172		
Eigenvalue = .0495		

Experience. A second multivariate analysis of variance (MANOVA) was used to examine how attitudes differ according to experience. The two by two between-subjects MANOVA was performed on four dependent variables: sympathy, empathy, acceptability, and intention to help. Given the differing impact of previous experience with suicide on ratings of sympathy and empathy, these variables were kept separate in this analysis. The independent variable was experience, with experience being grouped into four levels: no experience, self experience, other-experience, and both self and other-experience.

An examination of Hotelling-Lawley's Trace suggests that the combined dependent variables were significantly affected by the level of experience, $F(3,761) = 12.833$, $p < .001$. This result reflects a low to moderate association between the level of experience and the combined dependent variables, $\eta^2 = 0.171$.

Four analyses of variance were then performed to examine which of the four attitudes the four groups of experience differed on (see Table 15). Note that these levels were mutually exclusive categories; in other words, a participant could only be in one category. This procedure would maintain the integrity of the categories by eliminating the overlap that existed for some participants across the various levels of experience.

These experience groups differed on their rated attitudes for sympathy ($F(3,757) = 4.130$, $p < .01$), empathy ($F(3,757) = 31.842$, $p < .001$), and acceptability ($F(3,757) = 27.091$, $p < .001$), but not on intent to help ($F(3,757) = 0.443$, $p > .05$). It is worthy of note that the mean acceptability ratings between those with no experience (1.66) and those with other-experience (1.76) are very similar, but differ significantly from those with self experience (2.70) and those with both experience (2.74). It remains, however, for further analysis to determine specifically how these four levels of experience differ with respect to specific attitudes.

Table 15

Mean Ratings of Attitudes Across Experience

Attitude	Category of Experience				F
	None	Self	Other	Both	
Sympathy	5.53	6.00	5.57	5.89	4.130**
Empathy	3.69	5.25	4.10	5.23	31.842***
Acceptability	1.66	2.70	1.76	2.74	27.091***
Intent to Help	3.84	3.75	3.86	3.85	0.443

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

To further investigate this impact of the main effect of the level of experience on the individual dependent variables, a series of multivariate tests was performed, comparing the different levels of experience. There were significant differences in the four attitudes (i.e., sympathy, empathy, acceptability, and intention to help) between those with: a) self versus no experience, $F(1,97) = 5.593$, $p < .001$; b) self versus other-experience, $F(1,449) = 4.825$, $p < .001$; c) both self and other-experience versus other-experience, $F(1,664) = 31.061$, $p < .001$; d) both self and other-experience versus no experience, $F(1,312) = 17.327$, $p < .001$; and e) any experience and no experience, $F(1,763) = 4.865$, $p < .001$.

There was no statistically significant difference, however, between those with other-experience and those with no experience, $F(1,506) = 1.123, p > .05$. In addition, there was no significant difference between those with both experience (i.e., self and other-experience) versus self experience, $F(1,255) = 0.354, p > .05$.

A series of univariate tests was then conducted on those experience levels that differed significantly from each other to determine which dependent variables the two levels of experience differed on (see Table 16). Note that when univariate tests are examined after a multivariate analysis, the chance of making a Type I error increases greatly; thus, the choice of alpha level was made more conservative (i.e., .01).

Table 16

Univariate Tests of Attitudes Across Experience

Effect	Dependent variables	F
Self/No experience	Sympathy	2.271
	Empathy	15.183**
	Acceptability	7.609*
	Intention to help	0.611
Self/Other experience	Sympathy	2.229
	Empathy	8.903*
	Acceptability	10.841**
	Intention to help	1.374
Both/Other experience	Sympathy	9.960*
	Empathy	72.683**
	Acceptability	71.632**
	Intention to help	0.191
Both/No experience	Sympathy	4.954
	Empathy	58.194**
	Acceptability	24.156**
	Intention to help	0.002
Any/No experience	Sympathy	1.142
	Empathy	16.747**
	Acceptability	8.665*
	Intention to help	0.032

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

The results of the univariate analyses suggest that those with self experience had higher ratings of empathy and acceptability than do those with other-experience or no previous experience. Those with both self and other-experience had higher ratings of sympathy, empathy, and acceptability than did those with other-experience, and higher ratings of empathy and acceptability than did those with no experience. And finally, those with other-experience did not differ significantly from those with no experience; although, because of the influence of the self experience component, those with any experience had significantly higher ratings of empathy and acceptability than did those with no experience.

The high correlations in the discriminant output (see Table 17) for the univariate tests between the four attitudes and the discriminant function provides further evidence of which of these attitudes differs across the types of experience. For example, the significantly high correlations for empathy and acceptability in the comparison of attitudes between those with self experience and those with no experience indicate the significant difference in these two attitudes between the two groups. In short, the discriminant output in Table 17 corroborates the findings of the univariate analyses discussed just prior (Table 16).

Table 17

Discriminant Analysis of Attitudes Across Experience

Variable	Pooled within group correlations between variables and discriminant function	F
<u>Self vs. No Experience</u>		
Sympathy	-.3135	2.271
Empathy	-.8107	15.183***
Acceptability	-.5739	7.609**
Intent to Help	.1626	0.611
Canonical Correlation = .4423		
Eigenvalue = .2431		
<u>Self vs. Other-Experience</u>		
Sympathy	-.3387	2.229
Empathy	-.6770	8.903**
Acceptability	-.7470	10.841***
Intent to Help	.2659	1.374
Canonical Correlation = .2041		
Eigenvalue = .0435		

Table 17, Cont.

Both vs. Other-Experience

Sympathy	-.2825	9.960**
Empathy	-.7631	72.683***
Acceptability	-.7576	71.632***
Intent to Help	.0391	0.191

Canonical Correlation = .3983

Eigenvalue = .1885

Both vs. No Experience

Sympathy	-.2661	4.954*
Empathy	-.9119	58.194***
Acceptability	-.5875	24.156***
Intent to Help	-.0050	0.002

Canonical Correlation = .4292

Eigenvalue = .2258

Any vs. No Experience

Sympathy	-.2418	1.142
Empathy	-.9258	16.747***
Acceptability	-.5840	6.665**
Intent to Help	-.0406	0.032

Canonical Correlation = .1584

Eigenvalue = .0257

CHAPTER IV

DISCUSSION

Although the amount of research examining attitudes and their relation to suicide is increasing, there have been two significant shortcomings in this research. First, no model of attitudes has been applied. And second, there have been few attempts, if any, to control for the effects of prior experience on attitudes. The present study addresses these shortcomings.

It was predicted that there would be sex differences in the attitudes of the evaluators towards a suicidal target as well as sex differences in attitudes depending on the sex of the target. In general, the present study finds that rated attitudes towards a suicidal individual do indeed differ across the sex of the evaluator, but not across the sex of the target. Although the effect of past experience with issues relating to suicide can explain some of the differences in attitudes, the sex of the evaluator remains an important factor even when past experience is held constant for two of the three components of attitudes.

Sex Differences in Attitudes

Sympathy. It was predicted that females would have higher ratings of sympathy towards suicidal targets

(Stillion, McDowell, & Shamblin, 1984) and that suicidal females would receive higher ratings of sympathy than would suicidal males (White and Stillion, 1988). The results of the present study found that females are more sympathetic towards suicidal individuals, but that the sex of the suicidal individual does not influence the amount of sympathy felt by peers.

There is no clear explanation for the non-finding of a sex of target difference in sympathy. One possibility is population sampling, as attitudes of Canadians towards suicide differ from those of Americans (e.g., Domino & Leenaars, in press; Leenaars & Lester, 1994). The research of Stillion and her colleagues was conducted in the United States, and it is possible that the attitudes of Canadian university students do not depend on the sex of the suicidal individual.

Another possibility is that the use of a single vignette did not reflect the differing circumstances under which males and females typically commit suicide (e.g., females in Canada are more likely to use drugs, whereas males are more likely to use firearms). The circumstances surrounding the suicidal act were kept constant across the vignettes, so that the sex of the target would be the only variable to explain any variation in responding to the vignettes. This method, however, does not acknowledge that despite the large degree of similarity in circumstances

surrounding the suicide (i.e., choice of method) between males and females, some differences exist. As a result, the vignette may have been lacking in realism. The simple solution is to use a series of vignettes for males and females making use of some of the more common circumstances surrounding the suicides of males, and do the same for females, and then examine whether there are differences in rated attitudes across the sex of the target. Such a method, however, can create a problem in interpretability as it becomes less clear whether it is the sex of the target, the choice of circumstances, or some interaction of the two that is influencing the rated attitudes.

Empathy. Hoffman (1977) has argued that females are in general more empathic than are males. Moreover, the findings of Stillion, McDowell, and Shamblin (1984) as well as White and Stillion (1988) that females have higher levels of empathy towards suicidal targets are consistent with the low but nevertheless statistically significant correlation found in this study ($r = .09$, $p < .05$) between being female and empathy ratings. When experience is held constant, however, there was no sex difference in the evaluator's ratings of empathy. It would appear that this sex difference in empathy ratings is due to the sex difference in experience. The fact that females in general have more experience might have contributed to the results in the above studies that found that female evaluators had higher

empathy ratings. In effect, findings of sex differences in empathy may have been confounded by participants' previous experiences with suicide.

There are a couple of possibilities to explain the relation between female, having more experience, and having higher empathy ratings. It might be argued that females have more experience with suicide as people may be more likely to approach them. In other words, greater empathy is a result of having more experience, and females may have more experience as they are more approachable. This explanation helps to explain why females have had more individuals discuss suicidal ideation with them; but it does not, however, account for sex differences in self experience (e.g., females attempt suicide without an intent to die (i.e., parasuicide) more than do males).

An alternate explanation addresses this concern. It suggests that the motivation for a true suicide attempt may differ from that of parasuicidal behaviour. With a true suicide attempt (i.e., where the method is potentially lethal) the goal is to escape from unbearable psychological pain (Shneidman, 1992). In contrast, it can be argued that the parasuicidal act has as its main goal *communication*. Although Shneidman (1992) notes that the "common interpersonal act in suicide is *communication of intent*" (p. 10), he is referring to the verbal and behavioural cues that occur before the individual kills him- or herself. In

short, the main goal of the parasuicidal act itself is to communicate, whereas the main goal of the suicide attempt is to escape. Given that males make up the majority of completers and that females make up the majority of parasuicides, females appear to have a stronger tie to the communicative function of suicidal behaviour. Indeed, females were found to have known more suicide attempters ($\phi=.098$, $p<.01$), to know more suicidal ideators ($\phi=.159$, $p<.001$), and to have attempted suicide without intent ($\phi=.119$, $p<.001$) more than have males. Also consistent with this explanation is that there were no differences found between males and females in knowing suicide completers and in attempts with intent.

Acceptability. It had been expected that male evaluators would have higher ratings of acceptability than would female evaluators (e.g., Deluty, 1989), but no sex difference was found. A possible reason for this finding is the vagueness of the ending of the vignette. That the target has "decided to commit suicide" can be interpreted by the evaluator in a number of ways. Is it the target's decision to commit suicide that the person is rating, or is it the actual act itself that is being rated? Participants may rate the decision to commit suicide as acceptable, but may have much lower ratings of acceptability with certain methods, such as if the target was jumping off a bridge, for example.

It is also possible that this vignette could be read as the individual "trying suicide," in which the target could be seen as attempting and not completing suicide. Given the large sex difference in suicide attempts, coupled with the sex difference in actual intent found in the present study, it is possible that females may rate what they perceive as an attempt to be more acceptable than would males. No method is mentioned and therefore the degree of lethality of the choice of method is left up to the evaluator to decide.

It was also predicted that the suicide would be rated as more acceptable when the target is male regardless of the sex of the evaluator (Deluty, 1989). There were, however, no sex differences in the ratings of acceptability. Again, the ambiguity of the last line of the vignette may have been interpreted differently depending on the sex of the target.

Intention to Help. It was found that, as predicted, female evaluators were more likely than male evaluators to state that they would help the suicidal individual. Suicidal males will ultimately be less likely to be helped, as the majority of their close friends who are male are less likely to help them. So there may be more at stake than simply the fact that males are socialized to "understand that masculinity requires emotional inexpressiveness," (Stillion, 1994, p. 20) where they would be admitting weakness by disclosing suicidal ideation. Although it is likely that many suicidal males will deny their feelings of

pain in order to not appear weak, it is also possible that many males are cognizant of the fact that they are indeed less likely to receive help from those that they are closest to--other males.

It is worth noting, however, that the majority of the participants (i.e., both males and females) reported that they would help indeed help the suicidal individual. If one is to take this rating at face value, it is an encouraging fact. It remains for future studies to question the manner in which the participants would intervene, and to examine the effectiveness of the interventions.

The Effect of Experience on Attitudes

It had been predicted that other-experience would have a large impact on the rated attitudes of participants. On the whole, however, those with other-experience did not have significantly different attitudes from those with no prior experience with issues relating to suicide.

Those with self experience, on the other hand, had significantly different attitudes than did those with other-experience and those with no experience. Specifically, those with self-experience had higher ratings for empathy and acceptability. It stands to reason that those persons who have been through similar experiences as the target in the vignette that the empathy ratings would be elevated.

The higher rating of acceptability for those with self-

experience is more difficult to interpret. Even if it is interpreted by the participant that the target is committing suicide in the vignette, it is possible that those with higher ratings of acceptability are more likely to consider or engage in suicidal behaviour, but it is also possible that those who have engaged in suicidal behaviour consider it more acceptable for others as well.

Overall, those with self and other-experience in general had higher ratings of sympathy than did those without self experience; however, no specific type of self experience (e.g., ideation, attempts) was related to sympathy. A similar finding from Limbacher & Domino (1986) led them to conclude that there is a possibility that "the most understanding (if not effective) helpers may be those who have in fact attempted suicide..." (p.332). While it is true that those with self-experience in general have a greater amount of sympathy, they also have higher levels of acceptability. The results of the present study would question this recommendation, as it is possible that those with self experience may not be ideal for the position of helpers as they have have a tendency to view suicide as a more acceptable option, and this may affect their ability to intervene in a preventative manner. Research is needed to address this important question.

It was unknown to what extent the relationship to the person who has completed, attempted, or discussed suicidal

intentions with the participant would affect his or her attitudes towards suicide. The rated degree of closeness with the individual may also be related to the impact that the act has on the participant, and therefore on his or her attitudes towards suicide.

The results in general, however, indicate that it is the act itself of having known someone who has contemplated, attempted, or completed suicide that seems to affect attitudes more so than the degree of closeness or the relationship between the two individuals. The latter components did not appear to influence the four attitudes (i.e., none were significant in their relation to sympathy, empathy, acceptability, and intention to help).

The most notable exception is that while having known someone to have committed suicide was not significantly related to any of the four attitudes, the closeness of the person to the evaluator was related to the degree of acceptability ($r=.14$, $p<.01$). It appears that those who have had individuals close to them who have committed suicide have higher ratings of acceptability for suicide. This finding would suggest that suicide survivors may view suicide as being more acceptable as a result of the suicide of a close one. This might suggest that some suicide survivors may themselves be at a higher risk for suicide than the normal population should their perturbation level become elevated.

Having had someone talk to the participants about committing suicide had the largest impact of the other-experience variables on attitudes. Irrespective of the degree of closeness to the individual, having had someone discuss such thoughts with the participants was correlated with higher ratings of sympathy ($r=.14$, $p<.01$), empathy ($r=.19$, $p<.01$), acceptability ($r=.18$, $p<.01$), and intent to help ($r=.12$, $p<.01$).

In comparing participants who have attempted suicide with an intent to die to those who have attempted suicide without an intent to die, only attempting without intent is related to sympathy ratings. It is possible that sympathy is a greater component of the act of attempting without intent, perhaps with the sympathy related to the cry for help.

Prior research has noted that those with a history of suicidal behaviour or ideation have more tolerant and permissive attitudes towards suicide (Kerkhof & Nathawat, 1989). No research, however, has separated previous experience into separate categories in an examination of attitudes. The results of the present study suggest that those who have ideated may have higher levels of acceptance than those with previous attempts (i.e., parasuicides). Namely, it is suicidal ideation, and not previous attempts, that is the best predictor of acceptability. Further research will need to examine the possibility that a key

difference between completed suicides and parasuicides is the difference in acceptability. While having attempted suicide without an intent to die may be positively correlated to the level of acceptability ($r=.25$, $p<.01$), those who go on to complete may have much higher ratings of acceptability. In addition, it remains for further research to examine whether key differences in levels of acceptability are tied to differences in intent or differences in lethality (i.e., choice of method).

Limitations

There are several limitations of this study. Beyond the fact that participants are simply rating their attitudes towards a suicidal individual, they are only rating a select few examples of the components of attitudes towards one select individual. For example, although sympathy and empathy are strong examples of the affective component of attitudes, they are, nevertheless, still only examples of the component. It is possible that if other examples of the same component were selected (e.g., concern) the ratings would differ. A greater use of examples for each component might have provided the present study with greater reliability and construct validity. And, although the use of a single vignette per participant allowed for better standardization by avoiding response biases, it also allows for the possibility that participants may have responded

differently had various aspects of the vignette been altered.

A second methodological weakness of the present study is a small sample size for certain categories of personal experience. This small size was affected by two factors: a) not all participants may be honest in their reporting, especially given the delicate issue at hand, and b) some of these categories (e.g., past personal attempts) do not have high base rates.

The present study can also be criticized from various theoretical perspectives. From a biological perspective, researchers (e.g., Motto, 1992; Slaby & Dumont, 1992) are working towards a better understanding of the relations between neurotransmitters (e.g., serotonin) and suicide in an effort to better understand the biological basis of suicide. Such a perspective may argue that suicide has little, if anything, to do with attitudes, as suicide can be predicted based on neurotransmitter levels.

Many psychoanalysts stress the importance of such things as aggressive wishes and hatred turned inward (e.g., Freud, 1917/1957). From Freud's early viewpoint, an approach stressing external social factors can be criticized as overlooking the individual.

Yet, it is my belief that these various explanations for the phenomena of suicide do not necessarily contradict. Many factors (i.e., biological, psychological, social) are

involved in suicidal behaviour, and these factors likely interact. And like biological and psychological factors, social factors are amenable to change; in fact, I would argue that the examination of such factors as attitudes are perhaps the most significant in our work towards primary prevention. If children can be educated from a young age about suicide and how to respond to a suicidal peer, suicidal individuals might feel more able to discuss and seek support before the peak of the crisis has been reached. Moreover, these individuals would likely receive better support from more educated peers.

Towards an Attitudinal Model of Suicide Risk

The emphasis in the suicidology literature to date has been on discovering the risk factors that are predictive of suicide, as if these risk factors themselves cause suicide. But an important question remains unanswered: Why are these risk factors risk factors? One might hypothesize that people have differing attitudes towards suicidal individuals according to that suicidal individual's risk factors. More specifically, it is possible that people have more negative attitudes (i.e., less sympathy, less empathy, view suicide as more acceptable) towards higher risk individuals (e.g., a young native alcoholic male, as opposed to a middle-aged white non-alcoholic female). Perhaps these features are risk factors in part because people have more negative

attitudes in general towards those individuals who meet these criteria, and as a result are less likely to help them. Attitudes towards suicide and the suicidal are embedded in attitudes towards people, therefore the former should not be examined in isolation.

On the other hand, the present study found that it was the attitudes of males, and not towards males, that differed from those of females. It is therefore possible that the attitudes of high-risk groups differ from those of nonmembers, as will later be discussed.

Much of the attitudinal research focuses on the attitudes of society towards suicide (e.g., Marks, 1989), and its effects on the suicide rate. Although the examination of attitudes at the societal level does yield some useful data, it is of less practical use. It is important for research in the area to acknowledge that various groups may have vastly differing attitudes towards suicide. Subsequently, research should begin to examine the attitudes of different groups, as it is members of these groups that most strongly identify with that particular groups' attitudinal system. In other words, I argue that attempts to understand societies' attitudes towards suicide are too broad to be applicable in any direct manner, as different groups seem to have different attitudes towards many things, including suicide. Leenaars and Domino (in press) underscore the importance of studying suicide within

a specific cultural context, given the many cross-cultural differences in attitudes towards suicide (see also Leenaars & Domino, 1993; Leenaars & Lester, 1994).

Moreover, having participants rate their attitudes towards what could be an actual case provides a more realistic sample of their true attitudes than does asking them general questions about suicide. Peoples' attitudes towards suicide differ greatly depending on the specific circumstances of the suicide (e.g., Deluty, 1988).

It then becomes important to study the attitudinal structure of the high-risk groups for suicide, to see if they differ from those of the lower-risk groups, as was previously mentioned. It remains for future research to examine whether high-risk groups find suicide a more viable solution (i.e., higher acceptability) than do nonmembers, for example. The greater the specification of the group (e.g., native, male, substance abuser vs. male), the greater the validity of the findings.

It can be hypothesized that members of high-risk groups will have more negative attitudes not only towards suicide, but towards suicidal individuals as well. In other words, it would be predicted that high-risk group members will be less supportive and less likely to help other group members who are suicidal. Such individuals may be more generally alienated, both caused by and contributing to, negative attitudes towards them. As a result, member of these groups

are less likely to receive support from those that they are most likely to be in contact with--other group members. In such a manner various risk factors, such as being native, can make group members at higher risk to commit suicide because of the particular groups' attitudinal system.

Attitudes are not unidirectional and they are present for a reason. Attitudes serve the social function of regulating social behaviour. Thus, because attitudes are to a greater or lesser degree shared among group members, attitudes will regulate the extent to which males, for example, will know that other males are less likely to listen. Attitudes will regulate the expectation that the suicidal male will know that it is less socially acceptable to disclose such thoughts to others.

Possibilities for Future Research

Intentionality and lethality. At one time, suicides were classified on the sole basis of the outcome. Those in which the person was "successful" in taking his or her own life were termed completed suicides, while those who did not die were termed attempted suicides. A later view, popularized in Europe, but perhaps best outlined by Shneidman (1985), separated suicide attempts into *parasuicides* and *actual suicide attempts*. The latter refer to suicidal acts that have the potential of ending the life of the individual, while the former lack that life-ending

potential. In effect, the classification was solely on the basis of the *lethality* of the method.

This method of classification has been criticized, however, for failing to take into account the availability and access to certain means, the sex difference in choice of means, the public's general ignorance of what is lethal, and the intent of the suicidal individual (e.g., Canetto, 1992). This view argues that one's choice of method is not necessarily indicative of the degree of intent, and that it is more important to examine the degree of intent as the choice of method may change. Moreover, Leenaars & Lester (1989) note that the choice of method is affected by the psychodynamics of the individual (i.e., communicating rejection), and thus it appears that one's choice of method is not solely determined by the degree of intent.

These have been two of the competing views, with most of research using the distinction of Shneidman (1985). For the purposes of research, the two groups (i.e., parasuicides and suicide attempters) have been treated as fairly homogeneous groups. This method ignores variations in intent, as it views intent as best assessed by, and a complete function of, the choice of method. To my knowledge, there have been no attempts to integrate these competing viewpoints.

It is possible that these two factors, intent and lethality, could *both* be used to more accurately classify

suicidal behaviours. By considering both intent and lethality as dimensional variables (i.e., on a continuum), and rating suicidal acts on both dimensions, such a method would allow for differences between intent and lethality. For example, this model would explain how one could report having a high intent to die even though the choice of method is low in lethality, as was sometimes seen in the results of the present study. In such a case, an individual who takes what he or she thinks to be a lethal dose of a drug and lives is not automatically considered a parasuicidal act of a "cry for help."

This approach would also help explain a phenomenon that is little understood by suicidologists, the case of what Shneidman, Farberow, and Litman (1965) refer to as the "submeditated death." An example is the individual who gets into his or her car and drives around corners as fast as he or she can. The person does not appear to be trying his or her best to die and escape the unbearable pain; but, the aim is not always to live, either. This dangerous behaviour is very high in lethality, but the intent would be in the low range due to the high degree of ambivalence.

Although Shneidman (1985) argues that suicide can only occur when the person has a conscious intention to end his or her own life, the individual in this example is nevertheless engaging in potentially highly lethal behaviour despite his or her ambivalence regarding intent. The key

point is that intent and lethality are two separate, albeit often related, variables. One can bring about his or her own death even when the intent is not high, in what this model would view as a different type of suicide, but nevertheless still a suicide.

This approach is also making the assumption that individuals who state that they really were trying to take their own life when their choice of method was very low in lethality (e.g., five aspirin) differ in clinically significant ways from those who have a low level of intent with the same choice of method.

For ease of explanation, the model could be set out as a two (high vs. low lethality) by two (high vs. low intent) classification. This is not to argue that these four groups are internally homogeneous; rather, it is a simplification that would allow future research to account for the possibility that these two variables represent two differing, although overlapping, dimensions, rather than viewing one (i.e., lethality) as entirely caused by the other (i.e., intent).

Shneidman (1985) states that "suicide is caused by psychache" (p. 145) (i.e., unbearable psychological pain) but notes later that "no one has ever died of elevated perturbation alone. It is elevated lethality which is dangerous to life" (p. 205). From this point, one might hypothesize that perturbation is more closely associated

with intent than it is with lethality. In effect, high perturbation may or may not lead to high intent, as suicide may or may not be an option for a particular individual. The cognitive component of attitudes (e.g., acceptability) seems to tap part of this intentionality factor; therefore, any studies attempting to predict an individual's future suicidal behaviour from his or her attitudes should note that it is likely that both high perturbation and high acceptability of suicide as an option may be necessary for intent to be high.

An attitudinal model of suicide risk. A second type of research that is suggested by the results of the present study would be to examine whether attitudes differ across other sociodemographic risk factors for suicide (e.g., natives, drug users, etc.). For example, do some native communities have different attitudes towards suicide and the suicidal than do others or non-natives? If so, this difference may help to account for some of the difference in suicide rates, and therefore help to explain why various risk factors are risk factors.

The present study had expected that it was not only the attitudes of a higher risk group for completed suicide (i.e., males), but also the attitudes of the general population towards members of these groups that places them at a greater risk. The results found that males are less concerned about suicidal individuals and are less likely to

help them than are females (i.e., lower ratings on the affective and conative dimensions of attitudes); in other words, it is the attitudes of the at-risk group, rather than the attitudes towards the at-risk group, that may place them at a higher risk for completed suicide. It remains for future research to further examine these two possibilities, and their dialectical interaction, and to study them in reference to other empirical risk factors.

Predicting future behaviour. A third type of future research could focus on the prediction of future suicidal behaviour on the basis of attitudes. The importance of using the tripartite model for such research was not tested in the present study (see instead Ajzen, 1988, 1989); however, its use seems to be important given that many participants have very different ratings across the three dimensions. For example, some reported that the suicidal act by the target was unacceptable (i.e., cognitive), but reported that they would NOT help the individual (i.e., conative).

If an individual's attitudes could be used to predict his or her own future suicide risk then this information could be of clinical use. In other words, can at-risk groups be predicted on the basis of their attitudes towards suicide and the suicidal? The results of the present study suggest that this prediction is feasible, as different types of prior experience with suicide are associated with

different types of attitudes. It remains, however, for future research to examine whether the attitudes led to the behaviour or whether the attitudes are a result of the behaviour.

APPENDICES

APPENDIX A

VIGNETTE

Scenario 1 - In scenario 1, the target is male:

John is a university student taking a full course load. His family has been unsupportive of his schooling, and family members instead spend much of their time arguing and fighting. John sees his parents as critical and rejecting, and his friends as unsupportive. In addition, John's long-term relationship just ended when his girlfriend left him. Overall, he is feeling angry, isolated, and depressed. Seeing no other alternative, John has decided to kill himself.

Scenario 2 - Identical to scenario 1, except the target is female, and is referred to as Mary.

APPENDIX B
QUESTIONNAIRE

Part I

Please fill out the following rating scales. For each scale, either circle the number or place a check (✓) on one of the dashes to indicate your rating.

1. "Sympathize" refers to the degree to which you feel compassion for the individual.

	Low						High
Sympathize	1	2	3	4	5	6	7

2. "Empathize" is the degree to which you can place yourself in the person's position and feel what he or she is feeling.

	Low						High
Empathize	1	2	3	4	5	6	7

3. How acceptable to you is John's decision to kill
(Mary's)
himself?
(herself)

Completely unacceptable	_: _: _: _: _: _: _:	Completely acceptable
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4. If you knew John, would you help him?
(Mary) (her)

No	_: _: _: _:	Yes
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Part II

Some questions on this survey ask about very sensitive and private information. However, the only way to find out more about these issues is to ask about them; your participation is very much appreciated.

1. Have you ever known somebody who has committed suicide?

Yes ___ No ___

2. If so, what is the closest you have been to an individual who has committed suicide?

Not close						Very
at all	1	2	3	4	5	close

3. And if so, what was your relationship to the individual(s)? _____

4. Have you ever known somebody who has attempted suicide?

Yes ___ No ___

5. If so, what is the closest you have been to an individual who has attempted suicide?

Not close						Very
at all	1	2	3	4	5	close

6. And if so, what was your relationship to the individual(s)? _____

7. Has anybody ever spoken to you about killing him- or herself?

Yes ___ No ___

8. If so, what is the closest you have been to an individual who has spoken to you about killing him- or herself?

Not close							Very
at all	1	2	3	4	5		close

9. And if so, what was your relationship to the individual(s)? _____

10. Have you ever attempted suicide WITHOUT an intent to die?

Yes ___ No ___

11. If so, how many times? _____

12. And if so, with what method(s)? _____

13. Have you ever attempted suicide WITH an intent to die?

Yes ___ No ___

14. If so, how many times? _____

15. And if so, with what method(s)? _____

16. Have you ever SERIOUSLY CONSIDERED committing suicide?

Yes ___ No ___

APPENDIX C
RESOURCES FOR PSYCHOLOGICAL CRISES

Please keep this sheet for your own information.

Dr. Michael Kral, C. Psych.

253-4232 x2220

Office of Student Services
(For students in residence)

253-3410
Room 50, Vanier
Hall

Psychological Services
(For all students)

973-7012
Sunset Ave.

Windsor Distress Centre
(All crises)

256-5000

Alive! Canada
(Suicide prevention)

948-5845

Kids Help Phone

1-800-668-6868

APPENDIX D
CONSENT FORM

I, _____ (please print),
hereby understand and consent to the following:

I am being asked to complete a series of questions asking about my attitudes and my experience with suicide. Although many of these questions are of a general nature, many of them ask about matters that are potentially upsetting to some people. The purpose of this study is to learn what we can about suicide from many different people's responses.

I am aware that my participation is completely voluntary. I have the right to withdraw from participation at any time without explanation or penalty, and I may also refrain from answering any questions that I prefer to omit. I may ask any questions during my participation, and M. David Wallace (graduate student) or Dr. Michael Kral (supervisor) can be contacted at 253-4232 x2217 after I have finished for any further questions, comments, or discussion. Confidentiality regarding my responses will be protected by not having my name or any other identifying information appear on the survey. The results of this study may be published at a later date, but my identity or that of the other participants will not be known. My own individual results will not be available. Information sheets summarizing the results will be posted in the psychology department at the University of Windsor once data collection and analysis are completed.

I am being asked to participate on one occasion for approximately 30 minutes. I will receive one (1) experimental credit point for my participation.

This procedure has been cleared by the University of Windsor Department of Psychology Ethics Committee. Concerns can be directed to the Ethics committee Chair, Dr. Ron Frisch, at 253-4232 x7012. I have received a copy of this form and a list of community resources for crises. The copy I submit to the researcher will be kept separate from my survey to protect my identity.

I understand this information and voluntarily consent to participate in this study.

Signature

Date

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VITA AUCTORIS

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