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Attitudes towards suicide among Medical and Psychology students in Greece: A comparison study.

Working outline

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Abstract

This study investigated attitudes towards suicide among students of Psychology and Medicine during their education. The Suicide Opinion Questionnaire was given to Medical and Psychology students in a Greek university. Statistical analysis of the students' responses revealed that mental illness is perceived as suicide initiative from medical students group, while the right to die was strongly supported by psychology students department. Moral aspects of suicides have also differentiated students' attitudes.

Keywords: suicide, attitudes, mental illness, Greece.

Contents

Introduction

Medical personnel such as General Practitioners (GP), Psychiatrists and Psychologists are considered to be the key interveners in national suicide prevention programs (Mann, Apter et al. 2005;WHO, 2000; WHO, 2006). A big variety of public health strategies are targeting the above occupations since health staff is considered to be a high priority training group (Michel and Valach 1992; Appleby, Morriss et al. 2000; Rutz 2001; Szanto, *Kalmar,et al. 2007* ; Berlim, Perizzolo et al. 2007). Previous studies showed that people who completed a suicide had previously attended physicians at least one year before the deadly outcome (Power, Davies et al. 1997) while the suicidal victims mostly suffered from mood disorders (Henriksson, Aro et al. 1993).

Accepting the importance of the suicide gatekeepers inside hospital departments many studies tried to measure the health staff's attitudes towards suicide (Anderson, Standen et al. 2000; Anderson and Standen 2007; Suokas, Suominen et al. 2008) since these attitudes are vital on the way that suicidal patients are recognized, supported and treated (Neimeyer, Fortner et al. 2001)

Based on previous cross cultural research regarding attitudes towards suicide the goal of this study was to measure the specific attitudes among the Greek context as country has limited research on suicidality in general. While WHO reports that in 2006 the total number of suicides per gender and age groups reached 394 cases in Greece (most suicides reported for the group of 45 – 54 years of age for both genders), recent clinicoepidemiological study revealed that the suicide attempt rates have increased during the last three decades placing especially young Greek males in a higher suicide risk group (WHO, 2006; Ierodiakonou, Iacovides et al., 1998).

Although suicide is extensively under-reported in Greece compared to other countries, high suicide rates of Greeks living in rural areas characterized one of the oldest Greek suicide studies at late 70's. The unique seasonal variation in the frequency of the Greek suicides, which follows a harmonical curve peaking in June, was also one of the main conclusion in the study (Bazas, Jemos et al. 1979).

Discovering that suicide rates among adolescents in Greece were very low, with factors leading to suicide differentiated from other countries, e.g. failed love affairs for girls in rural areas and academic parental pressure for boys Beratis et al. concluded that cultural characteristic are very important. The Greek family structure and the easiness of anger discharge as mentioned in the study could explain the low rates of suicides among 10 to 19 year old Greek adolescents (Beratis 1991). Socio-economical changes that took place from 1978 to 1984 in Greece brought an increase in suicide prevalence from 4.8% to 10.9%, reflecting an increase in the psychological distress and mental ill health among Greeks (Madianos, Madianou-Gefou et al. 1993).

One of the most recent studies concerning parasuicidal poisoning highlighted that psychiatric evaluations must be based on a strong co-operation among physicians

and psychiatrists, while 3.8% of the admissions in the Internal Medicine Department of University of Thessaloniki were due to intoxication and most of the patients were diagnosed with a depressive disorder (Hatzitolios, Sion et al. 2001)

Background

Starting from the general population attitudes one of the first studies that the Suicide Opinion Questionnaire (SOQ) was applied on was a sample of Jewish and Christian adults. The answers given by the Jewish were supporting that suicides are related with mental illness, that aggressiveness is not part of a suicidal act and religion is influencing the suicidal outcome (Domino, Cohen et al. 1981). The same comparison made in a U.S. study found that mental illness, aggressiveness, impulsivity and the lack of religious values were representing the attitudes towards suicide in the Mexican –American high school students compared to Anglos students (Domino, G, 1981).

In the English cultural context where SOQ has been used, college students from New Zealand showed great agreement concerning suicide as a mental illness outcome, as a religious related result and as an attention – seeking behavior. Greater disagreement was shown on perceiving suicide as a right, as an impulsive act, as a "normal" and as a moral bad behavior (Domino, MacGregor et al 1988–1989). The same English context research included Canadian and U.S. adults whose responds showed a greater agreement for the mental illness, cry for help and right to die concept and greater disagreement on the religion importance and moral bad meaning of suicide (Domino and Leenaars 1989).

Maine et al. (2001) studied the relation of knowledge about suicide signs and attitudes, discovering that attitudes are not influenced by education, while suicide supporting skills could be improved regardless the negative or positive attitudes towards suicide (Maine, Shute et al. 2001). In the same paradigm of non specific occupation attitudes towards suicide, a birth cohort study of New Zealand-born young adults came to discover that liberal attitudes regarding suicides are more connected with personal history of suicidality in one's family, suggesting a specific pattern of responses when talking about the positive or negative perceptions of suicidality (Beautrais, John Horwood et al. 2004).

Similar findings of permissiveness regarding suicides among a Swedish population with personal suicide experience very clearly indicate a new risk group regarding suicide prevention programs (Renberg and Jacobsson 2003). Moreover a cross-sectional survey in Slovene adults suggests that the tendency of people with suicidal ideation towards permissive views of suicidal behavior must place cognitive factors as an important part for applying a suicide prevention strategy (Kocmur and Dernovsek 2003). De Wilde et al. supported that restrictive attitudes towards suicide can be listed as protective factors for suicidal behavior (De Wilde, Kienhorst et al. 1993) while Stein et al. concluded that in their study-sample of

adolescents in Israel, the suicidal ideation could also be a predictor of approving attitudes towards suicide (Stein, Brom et al. 1998)..

Coming back to the measurement of attitudes towards suicide among mental health staff much research has been focused on the prior education of specific professionals, like Medical doctors, Psychologists and psychiatric nurses, while limited research has been done concerning attitudes towards suicide prevention itself (Herron, Ticehurst et al. 2001).

Discussing about attitudes towards suicide per se, a study conducted in Madras (India) and Viennese (Austria) Universities compared and appreciated the attitudes towards suicide between preclinical medical students from these two different cultures. Suicide was mostly seen as a coward act among the Indian students, differences occurred regarding the deliberate versus impulsive base of suicides while the role of mental health was not so much emphasized and related to the suicide procedure and outcome. Concluding, the cultural differences regarding attitudes were placed on the emotional and rational aspects of suicide whilst religious influence was not clearly proved to be important according to the respondents' answers (Etzersdorfer, Vijayakumar et al. 1998).

A comparison between Japanese and American medical students, based on the SOQ subscales proved Japanese to be agreeing with the positive relation of suicides with right to die and normality concepts, and disagreeing with the fact that suicides reflect aggressiveness (Domino and Takahashi 1991). Wallin et al. (2003) found that the medical students of Karolinska Institute in Sweden changed their attitudes, when comparing first and tenth semester students, based on the psychiatric and biological knowledge they received through their education. Empathy and positive views towards suicidal patients characterized the students from the two semester periods while personal suicide thoughts seemed to be related to the permissive attitudes towards suicide (Wallin and Runeson 2003).

A Japanese study accounted that long medical knowledge can bring more sympathetic attitudes towards suicidal behavior among the students while younger students in the same time are proved to be more critical concerning suicide victims and the impact of this outcome in the family function (Sato, Kawanishi et al. 2006). Based on the different family structure, according to the authors, students of Psychology in Norway viewed the suicidal act as a private matter compared to their colleagues in Uganda and Ghana who perceived it as a joint matter for the family. The ideological environment or even the lack of knowledge in the specific cultures resulted in placing Norwegians as more reluctant in stating their attitudes compared to the students of Uganda and Ghana. Believing that attitudes have an impact on the skills and willingness of the therapists while working with suicidal patients and assuming that religion has a larger effect in the above African cultures than the Norwegian, Hjelmeland et al. supported that cross-cultural comparisons in this field provide us more knowledge in understanding the meaning of suicidal behavior (Hjelmeland, Akotia et al. 2008).

Gibb et al. studied the moderating role of attitudes towards suicide in the relationship of hopelessness, depressive symptoms and levels of individual's suicidal ideation among undergraduate students of introductory Psychology courses. Men were found to be confirming this moderator hypothesis, while

among women attitudes had a stronger effect upon suicidal ideation at the lower levels of depressive symptoms (Gibb, Andover et al. 2006). Finally a recent Turkish study focused on the attitudes towards suicide among different professions, found that medical students tended to agree with the loneliness factor, one of the important risk factors for suicide, but were not proved to be so motivated in preventing suicide compared to the other professions included in the study, e.g. General Practitioners, teachers and police officers (Oncu, Soyka et al. 2008)

While attitudes towards suicide have been sufficiently studied among medical and psychology students respectively, limited studies have been focused on this student population and suicide "topic" inside a culture. Voracek et al. study resulted in the strong association of gender, age, field and level of study (psychology and medical students) with the overall knowledge of suicides based on the Revised Facts on Suicide Quiz. With the exeption of this study rest of comparison studies found are focused on the specific mental health staff and their different behaviors of seeking mental and physical health care (Brimstone et al. 2007) and the different academic confidence level of psychology and medical students (Sanders et al. 2007).

Aim

The vital importance of the attitudes towards suicide among the health staff as mentioned earlier and the lack of research regarding these attitudes in the Greek culture, were the initiation of this research. Lack of comparison studies on attitudes towards suicide between psychologists and physicians during their education has also been considered to be a dynamic motivation for this study. Thus our aim was to measure attitudes towards suicide per se, during the last studying periods of Medicine and Psychology school in the biggest Greek University, Aristotle University of Thessaloniki.

Methods

I. Subjects

The Greek approached sample consisted of 212 Medical and Psychology students of the Aristotle University of Thessaloniki in Greece. Students in early school semesters, meaning before the 2nd year of Psychology school and before the 4th year of Medicine, were excluded from the study since their knowledge about psychiatric disorders, psychological distress and suicidality are not so advanced in the beginning of their education. From the original sample 205 students took part in the study, resulting in a response rate of 96.7%, having 100 participants in the Psychology school and 105 in Medicine. Reasons for no participation were due to limited free time (5 Medical students) and refusing of getting involved in a topic regarding suicides (1 Medical and 1 Psychology student). Taking into account this exclusion criterion the targeted group of students was randomly selected

during courses in both departments and clinical rotations, regarding medical students, during spring term 2009.

II. Instrument

The Suicide Opinion Questionnaire (SOQ) developed by George Domino et al. (1980) was used in the study. The SOQ consists of 100 questions regarding attitudes and 5 questions based on one's own suicidal behavior and types of relationship with suicidal victims. Beside one question regarding demographic data like gender an extra question regarding the age of the subjects was added. The item 107 from SOQ instrument asking about the honesty in the questionnaire responses was not taken into account for this study, since it has been indicated from the authors Domino et al. as a not valuable indicator of the rest SOQ items. Contents of the questionnaire regarding personal questions and demographics are shown in *Appendix I*. Using the back translation method (Brislin, 1979) the questionnaire was translated into Greek by two independent bilingual official translators. For the attitudinal items the participants were asked to reply based on a five point Likert scale with the options of strongly agree, agree, undecided, disagree and strongly disagree. Specific questions were used as reversed items (9 questions). The groups of items used in the study are labeled as the eight clinical subscales of SOQ: "Suicide reflects Mental Illness", "Suicide threats are "not real" – i.e. a "Cry for Help", "Right to Die", "Importance of Religion", "Impulsivity", "Suicide is Normal", "Suicide reflects Aggression/Anger" and "Suicide is Morally Bad".

III. Procedure

The Psychology department data was collected from two randomly selected classes, with the approval of the two course leaders. Whereas the Medical school data was collected during one course of the Department of Neurology, AHEPA University Hospital and the clinical rotations of the students in three Hospitals of Thessaloniki, (AHEPA University Hospital, Hippokration Hospital and Papageorgiou General Hospital). All the students were informed orally about the aim of the study and it was emphasized that taking part in the study was voluntary and anonymous. The questionnaires were distributed to the students present in the classes and clinical rotations and no attempt to reach students non present at the specific classes was made. As the distributor of the questionnaires was a licensed Psychologist it was noted that in case of additional questions or advices could be made after the data collection, keeping the confidentiality needed for these cases.
The study was ethically approved by the Research Committee of Aristotle University of Thessaloniki. Additional approval was taken by the President of the Faculty of Medicine of Aristotle University and the Research Committee of Hippokration Hospital, Thessaloniki.

IV. Data Analysis

Chi square was performed in order to see the differences of psychology and medical students regarding one's own suicidal behavior. In univariate analysis Pearson Correlation was used to determine the relationship among the eight clinical subscales of SOQ, while *t* test was performed in order to find the effect of profession/background on the attitudes (subscales). The significant level of the statistical analysis was set at $p < 0.05$. The statistical analysis was performed with the Statistical Package for Social Sciences SPSS version 17 (SPSS Inc., Chicago, IL, USA).

Results

Demographic data

The Medical sample consisted of 41 males and 64 females from the 4th, 5th and 6th year of studies, while the Psychology sample consisted of 10 males and 90 females studying in the 2nd, 3rd and 4th year of Psychology. The gender distribution in both departments was representative of the gender distribution in the total population of each school. The collective mean age of the students (in both departments) was 22.4 years of age (CI 95%, Range 22.11 – 22.74) while the age range in Psychology school was from 19 till 33 years of age (males: 20 to 33 years; females: 19 to 21 years) and in Medical school 21 till 34 years of age (males: 21 to 29 years; females: 21 to 34 years). In the overall number of students in both departments just eight students were over 28 years of age (5 students of Psychology and 3 Medical students).

Differences of psychology and medical students on suicidal behavior and risk

As shown in Table 1 when the chi square was run ($p < 0.05$) based on the questions related to one's own suicidal behavior, 14.1% of the student population reported suicidal thoughts ($x(df) = 1$, $p = 0.019$) while 5.9% reported previous suicide attempt ($x(df) = 1$, $p = 0.201$). The response to the question "Have you personally known someone who committed suicide?" revealed that 22.4% of the students were related to a suicide victim ($x(df) = 1$, $p = 0.851$), 4.3% lost a family member, 6.5% a relative, 13.0% a friend and 76.1% had an acquaintance who had committed suicide ($x(df) = 3$, $p = 0.948$) . Answers on the item 107 of SOQ "What is the probability that at some point in your life you might attempt suicide" revealed that 48,8% of the all students replied "zero", 42.9% replied "less that 10%", 4.4% replied "50 – 50", 3.0% replied "somewhat probable" and there was 1.0% of the students replying "highly probable".

Table 1. Comparison of medical and psychology students regarding personal questions on suicides

SOQ items on suicidal behavior	Educational background	
	Psychology students	Medical students
Suicidal thoughts	20%	8.6%
Suicide attempts	8%	3.8%
Known suicide victims	23.0%	21.9%
Family member	4.3%	4.3%
Relative	4.3%	8.7%
Close friend	13.0%	13.0%
Acquaintance	78.3%	73.9%
Probability of attempting suicide		
Zero	42.0%	55.3%
Less than 10%	48.0%	37.9%
50-50	5.0%	3.9%
Somewhat probable	4.0%	1.9%
Highly probable	1.0%	1.0%

Pearson correlation regarding the association between the eight SOQ subscales scores revealed that the subscale "Suicide reflects Mental illness" is significantly correlated with some scale as "Threats are not Real" ($r = .269$, $p = 0.00$), "Importance of Religion" ($r = .407$, $p = 0.00$), "Suicide is Morally Bad" ($r = .381$, $p = 0.00$) and "Right to Die subscale", ($r = -.356$, $p = 0.00$). No significant correlation was found between Mental Illness, Impulsivity, Aggression and Normality scales.

Presented in *Table 2,* "Threats are not Real" subscale was found to be positively correlated with "Importance of Religion" subscale (r = .15, p =. 032), while "Right to Die" was strongly correlated with "Suicide is Normal" subscale (r = .525, p = 0.00). "Importance of Religion" subscale was positively correlated with the "Aggression" subscale (r = .147, p = 0.036) and strongly correlated with "Suicide is Morally Bad" subscale (r = .575, p =0.00). "Suicide is Normal" subscale on the other hand was related to "Aggression" subscale (r = .231, p = 0.001) while "Impulsivity" was the only one which did not correlate with the rest of SOQ subscales.

Table 2. Correlation between the 8 SOQ subscales

SOQ scales	Mental Illness	Threats are not Real	Right to Die	Religion	Impulsivity	Normality	Aggression	Moral Bad
Threats are not Real	.269** .000	-	-	-	-	-	-	-
Right to Die	-.356** .000	.066 .350	-	-	-	-	-	-
Religion	.407** .000	.150* .032	-.344* .000	-	-	-	-	-
Impulsivity	.007 .926	.117 .095	.000 .997	.102 .146	-	-	-	-
Normal	-.136 .051	.103 .140	.525** .000	-.098 .164	.028 .690	-	-	-
Aggression	.136 .053	.130 .063	.108 .124	.147* .036	-.050 .474	.231* .001	-	-
Morally Bad	.381** .000	.084 .229	-.523** .000	.575** .000	.110 .116	-.249** .000	-.066 .350	-

**. Correlation is significant at the level 0.01 (2 – tailed).
*. Correlation is significant at the level 0.05 level (2 – tailed).

As shown in *Table 3* t test between the two different educational backgrounds/professions (i.e. Psychology and Medicine) revealed that there were significant differences when compared to the outcome scores of "Mental Illness", "Cry for Help", "Right to Die", "Normality" and "Morally Bad" subscales. When comparing the means based on the gender respectively in each department, no significant differences were found on any of the scales among Psychology department students, while the Morally Bad subscale among Medical students was found to be significantly different, with males tending to score more positively

that a suicide is a morally bad action than females (mean difference -1.538, p = 0.017). No significant association was found between gender and age respectively when compared to the students subscale scores.

Table 3. Comparison of medical and psychology students on attitudes towards suicide

SOQ Subscales	Psychology students		Medical students		p value*
	mean scores	std. deviation	mean scores	std. deviation	
Suicide reflects Mental Illness	41.87	5.47	44.51	5.01	0.000
Threats are not "Real" - Cry for Help	38.75	4.40	40.21	4.93	0.026
Right to Die	19.92	5.45	16.81	5.12	0.000
Importance of Religion	19.87	4.16	20.82	5.03	0.142
Impulsivity	21.54	2.57	20.92	2.57	0.088
Suicide is Normal	18.33	3.48	16.97	4.29	0.014
Suicide reflects Aggression/Anger	19.51	2.83	18.70	3.17	0.057
Suicide is Morally Bad	9.55	3.02	11.03	3.23	0.001

*significant level at $p < 0.05$, independent variable: profession/background

Discussion

The Suicide Opinion Questionnaire has been repeatedly used in cross – cultural studies in order to measure attitudes towards suicide, showing significant differences between each study population. Since the aim of this study was to appreciate the attitudes towards suicide in the Greek culture but in different

educational backgrounds, the substantial number of differences regarding attitudes towards suicide found were tried to be defined.

Comparing with students of Psychology both males and females of Medicine clearly appreciated that mental health problems are the basis of suicidal behavior while in the same time perceived suicidal behaviors, regardless if it is a suicide completion or attempt, as the initiative of suicidal actions. Previous research has similarly shown the perception of mental health problems as the "ground" of suicidal behavior while in a parallel way this attitude premises with the consideration of suicidal people as attention – seekers (Domino, Cohen et al. 1981; Domino and Leenaars 1989) ; Domino, MacGregor et al. 1988 – 1989)

In seeking the possible explanations regarding the different educational value of mental illness and suicidal gestures as the basis of suicidal behaviour, no previous studies were found. Although further research is needed we could assume that Psychology students are not characterising suicidal actions only as a psychiatric disorder or just attention – seeking gestures. This could be due to the lack of psychiatric knowledge in their pedagogic system as a previous study concluded (Hjelmeland, Akotia et al. 2008) or to the broad behavioural points of view regarding psychological distress in their education.

Following the close association of Right to Die and Normality subscales ($r = .525$, $p = 0.000$) valuable antithesis was obtained among the student sample, having Psychology students showing a greater agreement on the specific attitudinal items (Right to Die mean difference = 3.10095, $p = 0.000$, Normality mean difference = 1.35857, $p = 0.014$). Acknowledging that Psychology courses go in depth with respect to quality of life and psychology of death, acceptance of having the right to kill yourself in specific cases could be easily explained for Psychology students. Medical students on the other side rejected the belief that people could consider ending their life in specific cases and generally they tended not to approve any kind of "natural" behavior regarding suicidal acts. The Medical aspect of suicides as a right has been characterizing the Greek cultural attitudes towards death since ancient times (Mystakidou, Parpa et al. 2005) and in our study population this can be easily appreciated.

As the specific subscales (Right to Die and Normality) refer to the concept of euthanasia rather than just suicide, cultural differences between the Greek sample and previous study population could also be marked. The antipodal findings from Domino et al. study suggested that Japanese medical students agree with the choice of volunteer death under specific circumstances, i.e. "Suicide is an acceptable means to end an incurable illness" , SOQ item 18, (Domino and Takahashi 1991). While in Japan enormous efforts are made in order to establish "Dying with Dignity" policies (Akabayashi 2002) Greek modern attitudes towards euthanasia bring dilemmas to the general population and health staff. Based on previous studies regarding the modern Greek concept of euthanasia (Mystakidou, Parpa et al. 2005), we can appreciate that not having "the right to die" concept into everyday life, comprehensive laws and physician modern practices, is reflected on the Greek medical student sample.

Moral aspects of suicidality were also crucially different among the study population. Medical students perceived suicides as a morally bad action more

than Psychology students. In addition significant differences were found among males and females of the department, where females' perception of suicides were not stated as so unethical as in the males group. Comparing the "moral evil" subscale scores (Domino 2005) of the Greek Medical students with previous research (Domino, MacGregor, et al. 1988–1989) analogous agreement (acceptance that suicide is morally bad) was found. Gender importance could be mentioned here since female Medical students and 90% of Psychology students (females) found to be more liberal concerning the characteristic of suicide as a morally accepted behavior. Additional research on conservatism among genders would be beneficial.

Conclusion

Measuring the attitudes towards suicide among Greek Medical and Psychology students, important findings were brought to light. Characterizing suicides as a mental illness consequence from the side of Medical students and identifying suicide as personal right/choice from the side of Psychology students differentiated the samples' attitudes. Ethos and morality labels of suicide also made a distinction among the two educational backgrounds and genders

Suggestions for further research

Recent studies suggest that university courses influence attitudes towards mental illness, having positive and negative attitudes based on the different biogenetic and psychosocial knowledge among students of Psychology and Medicine (Lincoln, Arens et al. 2008). Taking into account that the primer goal of Psychology is mental health appreciation, while Medicine's is focusing on the combination of physical and mental health training, attitudinal differences among students could be partly explained. Further research must be focused on the attitudes gained through their education and in depth qualitative research should be based on the psychological models of their attitudes and behaviors. Considering this study as a novel one, further analysis of the students' replies could result in a more advanced appreciation of attitudes towards suicide.

Limitations of this study

The absence of a control group not related to health care might limit the study since the findings may not apply on the general population of Greece. Hypothesis used for explaining the results should be interpreted with caution since the study design did not include in depth psychological analysis of the attitudes towards suicide. Caution should be held regarding the missing discussion of the chi square results since these items were not attitudinal but were just included in the original Suicide Opinion Questionnaire used and that is why no comments have been made on them.

Implications for public health strategies

Personal attitudes, thoughts and emotions influence behavior (Kelly, 1955; Ajzen and Fishbein 1980; Eagly, Alice at al. 1993) while these attitudes were also found to be effective on therapies with suicidal patients (Neimeyer, Fortner et al. 2001). Hence we can understand the vital importance of public health interventions requested. Training "gatekeepers" for suicidal patients has shown to have powerful impact in advancing clinical methods and changing attitudes (Isaac, 2009; Rutz, 2001) and public health policies based on suicide research should focus on this idea. Psycho-educational interventions based on attitudes during the mental health staff professional education should be applied in order to improve their future clinical treatment skills regarding suicidal patients inside institutions and alongside reduce the high suicide rates among physicians and psychiatric staff (Torre, Wang et al. 2005).

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Appendix I

101. Are you:
a. male b. female

102. Have you ever seriously considered suicide?
a. yes b. no

103. Have you ever attempted suicide?
a. yes b. no

104. Have you personally known someone who committed suicide?
a. yes b. no

105. If yes to the above question, was the person:
a. a member of your immediate family (e.g. parent, sibling)
b. a relative (e.g. cousin)
c. a close friend
d. an acquaintance

106. What is the probability that at some point in your life you might attempt suicide
a. Zero
b. Less than 10%
c. 50 – 50
d. Somewhat probable
e. Highly probable

107. In answering a questionnaire like this, there are many reasons why some people may not be able or wish to be fully honest. In looking your responses, should we:
a. accept them as fully honest
b. accept them but with some reservation
c. probably disregard them
d. disregard them as not valid

108.* Age

* Demographic question added for the purpose of this study.