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ATTITUDES TOWARDS TWO SUICIDAL STAGES AMONG UNIVERSITY STUDENTS IN LEBANON AND THE ROLE OF SPOUSAL ACCEPTANCE AND INDIVIDUAL CHARACTERISTICS

by
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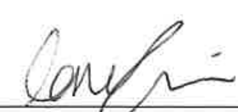

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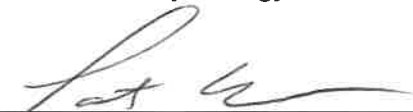

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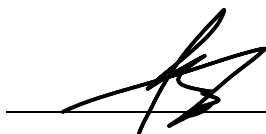

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ABSTRACT
OF THE THESIS OF

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Title: Attitudes towards Two Suicidal Stages among University Students in Lebanon and the Role of Spousal Acceptance and Individual Characteristics

Attitudes towards suicide vary according to individual characteristics and contextual factors. There is little literature on whether negative attitudes towards suicide also reflect a concern for those who are close to the suicidal person. Additionally, no known study has explored whether attitudes vary according to which suicidal stage is being considered, whether ideation or intent.

This study investigated attitudes towards suicide using a vignette-based measure. The vignette presents a middle-aged married person X who suffers from a chronic mental illness and contemplates then decides to end his/her life. The sample had more accepting attitudes towards suicidal ideation than towards suicidal intent. Only religiosity and depression emerged as consistent predictors of attitudes. Individualism was a predictor for attitudes towards suicidal ideation only and no effect was found for spousal acceptance or lack thereof on attitudes towards suicide.

Results also indicated more accepting attitudes towards suicidal ideation but not towards suicidal behavior.

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CHAPTER I

INTRODUCTION

A. Suicide and the Lebanese Context

Suicide is the second leading cause of death among people aged between 15 and 29 (World Health Organization, 2014). It is estimated that around 0.8 million die by suicide every year. In Lebanon, the suicide rate is relatively low with 3.2 people per 100,000 every year, which is less than half the global rate (World Health Organization, 2018). Some attribute the low rate to religious and family roles (Mahfoud, Afifi, Haddad & Dejong, 2011), while others believe that there is a trend of underreporting of suicide incidents, possibly for social or religious reasons (Bertolote & Fleischmann, 2002). Additionally, it is not always possible to determine whether one had died by suicide, or say, a traffic accident (Pomipilli et al., 2012).

Studies on prevalence of suicidal ideation in Lebanon reveal that 16% of school students aged between 12 and 14 contemplated ending their life in the 12-month period preceding data collection (Mahfoud, Afifi, Haddad & Dejong, 2011); while another study found a lower 12-month prevalence rate of suicidal ideation of 4.3% in adults (Borges et al., 2010). In 2013, “Embrace”, a non-profit organization, was launched with the aim of raising awareness and fighting the stigma around mental health and suicide. The organization launched the first suicide hotline in Lebanon in 2017 and reported that on average, one individual dies by suicide in Lebanon every three days (Embrace, 2018). However, to this day, no known study has been carried out to examine the attitudes towards suicide in Lebanon.

B. Attitudes towards Suicide

People differ in the way they view suicide in terms of its acceptability, the motives behind it, and the gravity of suicide threats. For instance, some people believe it is unacceptable to take one's life regardless of the reason, while others believe that suicide is driven by mental illness (Alston & Robinson, 1992). Others might disagree with both beliefs. The French novelist and philosopher Albert Camus wrote that suicide, as the fundamental existential problem of "deciding whether life is worth living'' (Camus, 1942, p. 3), requires serious thinking and contemplation. Even though the majority tend to agree that life is worth living even in the face of chronic pain and terminal illness (Deluty, 1989) and oppose physician assisted suicide to end physical and mental pain (Frey & Hans, 2016), there have been some movements which have advocated for one's right to end one's life − such as the Right to Die Movement (particularly in the context of terminal illness) (Ingram & Ellis, 1992).

Clinical research has highlighted several difficult emotions that serve to facilitate suicidal ideation and intent; they include feelings of hopelessness, helplessness, burdensomeness, and the painful emotions of loss, rejection and abandonment related to interpersonal difficulties (Van Orden, Witte, Cukrowticz, Braithwaite, Selby, & Jointer, 2010). Others have suggested that people may end their lives to escape a sense of personal failure (Baumeister, 1990), to promote a personal or collective cause, such as the case of suicide bombers (Kruglanski, Chen, Dechesne, Fishman & Orehek, 2009), or to maintain their or their families' dignity, status or reputation, particularly found in "cultures of honor" (Young, 2002).

Still, other researchers have identified suffering from a physical or mental illness (Hawton & Fagg, 1988) as a reason for suicide. Accordingly, people's judgments of

suicide differ depending on the reason behind it. Two studies that used samples of students compared attitudes towards suicide across three different situations: when it is due to a terminal illness, chronic physical pain or chronic psychological pain. They found that suicide due to a terminal illness was the most acceptable to them, while suicide due to chronic mental illness was the least acceptable (Deulty, 1989; Presto, Sherman, & Dicarlo, 1995). Similarly, Lund, Nadroff, Winer and Seader (2016) found that suicide in the presence of a disability was more acceptable than suicide in its absence. The disabilities they used were of physical nature (e.g., blindness and brain injury), except for one that mentioned bipolar disorder. Out of all the disabilities, having a bipolar disorder yielded the smallest effect size on attitudes indicating that psychological pain does not appear to carry as much legitimacy when it comes to suicide as physical illnesses or injuries. Another study that used a community sample found that even with family-assisted suicide, a case of chronic physical pain was more acceptable than a case of depression (Frey & Hans, 2016). In general, people judge physical illnesses − particularly terminal ones − to be more justifiable for suicide than psychological ones. It is worth noting that these results are congruent with the fact that advocacy for the right to die was meant for those who are terminally ill (Ingram & Ellis, 1992), rather than those who are mentally ill and are often stigmatized for their illness (Hayward & Bright, 1997).

C. Clinical Relevance of Attitudes towards Suicide

It is important to study attitudes towards suicide for multiple reasons. Negative attitudes towards suicide affect the reactions and support that both suicidal individuals and families in mourning receive, while social support is one of the major protective

factors against suicidal ideation (Kleiman, Riskind, & Shaefer, 2014; Miller, Esposito-Smythers, & Leichtwei, 2015). If one considers suicide to be a taboo, one may stop talking to a friend who has attempted suicide, even though their friend can greatly benefit from their support.

In a qualitative study in the US, suicide attempters reported being perceived as selfish, incompetent and malingering. They also reported feeling uncomfortable talking about their suicidal ideation with health providers. Some even lost relationships after they had disclosed their previous suicide attempts (Sheehan, Corrigan, Al-Khouja, & Stigma of Suicide Research Team, 2016). Another qualitative study in Australia reported that suicide survivors were avoided by some family members and labeled as bad or burdensome. Some viewed them as hopeless individuals or as manipulators (Rimkeviciene, Hawgood, O'Gorman, & De Leo, 2015). Lester and Walker (1993) examined the prejudice faced by suicidal patients by surveying 160 American university students and found that over half of them are not willing to date someone who had attempted suicide, and almost a quarter would not buy a house next to them. Moreover, a study by Calhoun, Selby and Faulstich (1980) found that people are more blaming of parents of a child who died by suicide in comparison to the parents of a child who died from illness. People also felt less comfortable and more awkward around families of people who died by suicide than those who died by accident (Calhoun, Abernathy and Selby, 1986). In the case of suicide, the consoling process is seen as more constrained and characterized by more unspoken rules. For example, people do not think they should discuss how the deceased had died. This makes the whole interaction more difficult and unpleasant to potential sources of social support.

Even medical professionals who are in direct contact with suicidal and self-injurious people in emergency rooms offer varying degrees of support. Mackay and Barroclough (2005) gave scenarios to medical emergency staff in which they presented cases of self-harm. The study manipulated perceived levels of controllability and stability of behavior. Some scenarios presented patients who hurt themselves because of the death of a friend (uncontrollable event) while others because of financial debt (potentially controllable event). In order to manipulate stability of behavior, some scenarios mentioned that this was the first episode of self-harm while others said it was the sixth attempt, making the latter scenario a more stable behavior. The study found that the more the event is perceived as controllable, the more irritated were the professionals with the patient, and the less willing they were to help. They also found that the more the behavior was perceived to be stable, the more pessimistic and less helpful the professional was.

CHAPTER II

LITERATURE REVIEW

A. Individual Characteristics

Attitudes towards suicide vary according to individual characteristics. The social-psychological model of suicide approval defines three categories for these characteristics: 1) level of strain, 2) social learning, and 3) social control (Agnew, 1998). Level of strain refers to the amount of stress that one is under and the effectiveness of one's coping mechanism. Getting divorced, being depressed or ill, and having limited financial resources are all examples of a highly straining situation. When one is under a lot of stress and lacks adaptive responses, one may view suicide as a viable and legitimate solution (Emanuel, Fairclough, & Emmanuel, 2000). Social learning refers to one's history of socialization and the values acquired and how they relate to suicide. Someone who was brought up in a religious environment that considers suicide a grave sin, will tend to view it as such (Eskin, 2004). Similarly, those who value self-autonomy will tend to believe that people are entitled to decide their own fate (Bulmer, Böhnke, & Lewis, 2017). Social control means the extent to which one is attached and committed to others and to conventions. Someone high on social control will find more reasons to live and will more likely consider the disruptive effect of suicide on others or one's group. For instance, married people are less accepting of suicide than unmarried people (Stack, 1998). Someone who goes to church regularly is more likely to have a sense of commitment to other churchgoers and to view suicide as a breach of such commitments (Minear & Brush, 1981).

In line with the factors of the model, the following sections review four individual characteristics that fall under the three categories of strain, social learning and social control and predict attitudes towards suicide: depression, religiosity, individualism and collectivism. As a measure of strain, depression will be reviewed given its relationship with life stressors (Tennant, 2002) and its association with reduced coping (Penland, Masten, Zelhart, Fournet & Callahan, 2000),. Depression is a state of distress (e.g., lack of pleasure and feelings of worthlessness) which is accompanied by difficulty in coping (e.g., lack of energy and motivation) (American Psychiatric Association, 2013). As measures of social learning and social control, the effects of religiosity and cultural orientation (i.e., individualism and collectivism) on suicide approval will be reviewed. Religiosity affects personal values (e.g., God is the owner of life) and increases attachment to others and conventions (e.g., via taking part in religious practices) (Minear & Brush, 1981). Individualistic orientation, or the emphasis on the value of self-determination, and collectivism, or the emphasis on connectedness to others and relationships (Triandis, 2018) affect one's values and commitment to others. In addition to these four characteristics, empathy, which lies outside the social psychological model, will be reviewed because it is suspected to be relevant to attitudes towards suicide and, particularly, suicidal people because it may enable one to take the perspective of the suicidal individual and be concerned about their suffering.

1. Depression and Attitudes towards Suicide

Given the strong link between depression and suicidal behavior (Thomas & Morris, 2003; Hawton, Camabella, Haw, & Saunders, 2013), and the link between one's accepting attitudes and suicidal behavior (Stein, Brom, Elizur, & Witztum, 1998), it is

plausible to ask whether those who are depressed have more permissive attitudes towards suicide. Additionally, and in accordance with the strain aspect of Angew's model (1998), depression can be thought of as a state of strain where one is distressed and struggling to cope. Indeed, there is some evidence that supports the link between the two. A Korean study that interviewed a randomly selected community sample found that participants with depression had more permissive attitudes towards suicide than those without it (Jeon, Park, & Shim, 2013). Another study presented vignettes of suicidal people, half of whom were disabled and the other half were not and found that depressive symptomatology in the evaluators predicted more acceptability of suicide in both cases (Lund, Nadorff, Winer, & Seader, 2016). Similarly, Lo Presto, Sherman and Dicarlo (1995) found that people with high levels of depression viewed suicide due to chronic physical pain or chronic depression to be more acceptable than those with low depression. It seems that being highly depressed makes one more sympathetic towards those who are in pain, be it physical or emotional.

Attitudes towards suicide are also related to suicidal ideation. People who are accepting of suicide tend to have concurrent or have had previous suicidal thoughts. This trend has been observed among adolescents, university students and community samples in different countries (Eskin et al., 2016; Minear & Brush, 1981; Renberg & Jacobsson, 2003; Tan, Yang, Chen, Zou, Xia, & Liu, 2017). Gibb, Andover and Beach (2006) found that, among men only, attitudes towards suicide moderate the relationship between hopelessness and depression on one hand, and suicidal ideation on the other. Being accepting of suicide increases the effect of hopeless and depression on suicidal ideation.

There is also evidence from a study that asked patients with multiple sclerosis whether they would consider assisted suicide under hypothetical circumstances (Berkman, Cavallo, Chesnut & Holland, 1999). This study did not ask about attitudes in general, but instead asked personal questions in hypothetical circumstances (would you do it if x was the case?). Those with depression were twice as likely to consider assisted suicide if they could no longer enjoy anything that makes life worth living or if they were no longer able to do anything that makes them happy. Another study asked university female students to imagine themselves with cancer, chronic physical pain, or depression that would cause them to withdraw from family and friends. Participants reported a greater likelihood to end their lives due to depression (Marion & Range, 2003).

It should be noted that there is inconsistent evidence between acceptability of suicide and depression. For instance, Stolz, Mayerl, Gasser-Steiner and Freidl (2017), measured fear of death and levels of depressed affect and found that it was fear of death, and not depressed affect that predicted approval of assisted suicide or euthanasia in a sample of care-dependent adults who were older than 50. Finally, a study examined changes in attitudes towards euthanasia and assisted suicide among patients with incurable malignancy. It was found that they had more conservative attitudes with time and that these changes were not related to depression but to an increased use of social and religious resources (Pacheco, Hershberger, Markert, & Kumar, 2003). It seems that there is mixed evidence regarding the relationship between depression and attitudes towards suicide. Studies that collected data from community or non-patient samples supported this relationship, while studies that collected data from patients had mixed results.

2. Religiosity and Attitudes towards Suicide

Religiosity and religious values are acquired through social learning. Religiosity is a complex construct that can take on different meanings (Holdcroft, 2006). For instance, Allport and Ross (1967) characterize personal religion as consisting of intrinsic and extrinsic domains; the former is experienced by the person as valuable on its own, while the latter is used for other purposes (e.g., for solace or social status). Golden and Stark (1965) specify multiple almost independent dimensions of religion that cover subjective experiences: ritualistic practices, central beliefs about God, knowledge of one's religion, and the consequences of being religious (as cited in Holdcroft, 2006). Cornwall, Albrecht, Cunningham and Pitcher (1986) view religiosity to be comprised of the personal and the institutional modes. In general, there is agreement that religion is a multi-dimensional construct that covers intrapersonal and interpersonal spheres.

All three religions of Islam (Sachedina, 2005), Christianity, and Judaism (Pellegrino, 1992) consider God to be the owner of human life, and thus, condemn suicide as a transgression on God's will. There is strong sociological and psychological evidence that religiosity is associated with lower rates of suicide attempts and less acceptance of it (Simpson and Conklin, 1989; Stack & Kposowa, 2011; Thimmaiah, Poreddi, Ramu, Selvi & Math, 2016). Simpson and Conklin (1989) analyzed suicide rates in 71 nations and found that after controlling for levels of socioeconomic development, Islam had an independent effect on suicide rates; the higher the proportion of Muslims in a country, the lower the rate of suicide. In a Christian community sample, Domino and Miller (1992) found that religiosity is associated with viewing suicide as an immoral, aggressive and abnormal act that is not within one's prerogative. It must be

noted that these studies assume that suicide reporting is accurate in the investigated countries, which may not be the case considering the social and religious ramifications of registering death as a suicide.

Stack and Kposowa (2011) used data collected by the world values questionnaire in 56 nations and found that living in a country with high levels of religiosity, adhering to key religious beliefs (for instance, life after death), and interacting with religious people all independently predict lower levels of suicide acceptability. A study on a student sample similarly found that affiliating with a religion, adhering to religious beliefs, and attending organized religious events were associated with decreased levels of accepting suicide in others or oneself (Minear & Brush, 1981). Walker, Lester and Joe (2006) found that believing God to be the owner of life is associated with increased suicide stigma among a sample of European Americans and African Americans.

Eskin (2004) compared suicidal behavior and attitudes towards suicide between Turkish adolescent school students who received religious education with those who received secular education. He found that the religious group was less accepting of suicide but more accepting of a fictional suicidal peer than the secular group. It is possible that religion mitigates suicide by condemning it and by reaching out to help those at risk. This is in line with a qualitative study in Ghana that found that religious people are willing to reach out to suicidal people despite rejecting suicide as a solution to one's problems (Osafo, Knizek, Akotia, & Hjelmeland, 2013).

In the medical profession, where professionals are in direct contact with suffering terminal patients, there is evidence that religion influences the physician's decision on death-related matters. For instance, a survey in the UK found that non-

religious physicians reported more decisions that involved a degree of intention or expectation to hasten the death of the terminal patient and were also less opposed to the legalization of physician-assisted suicide (Seale, 2010). Religious affiliation, or being Catholic among oncologists in the US, is associated with decreased support of euthanasia, and reluctance to increasing intravenous morphine to patients in severe pain (Emanuel et al, 2000). A study in Finland found that non-religious nurses or doctors who were under 50 were more likely to support suicide than religious or older professionals (Ryynanen, Myllykangas, Viren & Heino, 2002). It should be noted that these studies in the medical profession merely asked about affiliation without explicit questions about levels of religious practices or relevant religious beliefs (e.g., God being the taker of life). While these studies are cross-sectional in nature, through various measures, they provide macro and micro evidence that religiosity is associated with less acceptability of suicide. Overall, religion affects attitudes because of its values, such as the importance of faith and patience while enduring suffering, beliefs about God's will and fate, and because it provides people with a strong social network. This aligns with the social learning and the social control aspects of Agnew's model (1998), respectively.

3. Collectivism-Individualism Orientation and Attitudes towards Suicide

Collectivistic and individualistic orientations (CIO) are also constructs that are socially learned. CIO is used to explain differences in terms of self-other relations both across and within cultures. In collectivistic cultures, such as Japan, individuals view themselves as part of a collective, such as the family or the society. As such, their goals and behaviors are consistent with and subservient to those of their groups (Triandis,

2018). Additionally, one primarily views oneself in terms of the roles and the relationships they have (e.g., I am a mother and an employee). On the other hand, in an individualistic culture, such as England, people view themselves as loosely linked and existing independently; they primarily define themselves by individual attributes (e.g., I am smart). Individualists might have goals that are not necessarily consistent with those of the group, and they perform their duties as far as they bring them personal benefits (Triandis, 2018). This is similar to Markus' and Kitayam's (1991) conception of independent and interdependent selves, where the former is defined by autonomy and the latter is defined by relationships, and each has its own effect on behavior and motivation. Cultures are not homogeneously collectivistic or individualistic; there can be more or less individualistic people in a collectivistic culture and vice versa (Singelis, Triandis, Bhawuk & Gelfund, 1995; Green, Deschamp & Paez, 2005). In Lebanon, speaking more Arabic than English or French has been associated with a greater collectivistic orientation (Ayyash-Abdo, 2001). Additionally, collectivism and individualism are not two poles of one dimension; it is possible for some people to score high on the two dimensions across different domains (Triandis et al, 1986), and depending on the group being considered, such as families or neighbors (Hui & Triandis, 1986). For instance, Asian Americans whose original culture is collectivistic but live in an individualistic country, may have assimilated in some ways and not others (Rhee, Uleman & Lee, 1996).

Given that individualism and collectivism influence one's goals, values and sense of autonomy, it is easy to see their relevance to attitudes towards suicide. Someone with a primarily individualistic orientation might think that it is ultimately within one's rights to decide on the fate of one's own body, regardless of the duties they

owe to others (including families). On the other hand, someone with a primarily collectivistic orientation would tend to think more about what the individual owes to others and would consider the effect of suicide on others. Both individualism and collectivism fit under Agnew's model (1998), where the former taps into the value of autonomy and the latter taps into one's commitment to others.

There are few studies that examine collectivistic and individualistic orientations in relation to attitudes towards suicide. Eskin (2013) measured CIO and attitudes towards suicide and towards a fictional suicidal friend using a sample of Turkish university and high school students. He found that predominantly collectivistic students were less accepting of suicide than predominantly individualistic students. Kemmelmeier, Wieczorkowska, Erb, and Burnstein (2002) conducted four studies to examine attitudes towards suicide in Poland, Germany and the US, to see whether they vary according to cultural factors. They primed American students with individualistic or collectivistic experiences and measured their attitudes towards physician assisted suicide (PAS). Priming was done by asking participants to write a 75-word paragraph about either one's connectedness with others (collectivism condition) or about one's uniqueness and independence (individualism condition). Those primed with an individualistic experience were more accepting of suicide than the collectivist group. Additionally, they found that students from American states classified as collectivistic (e.g., states in the deep South) were less accepting of PAS than their counterparts in states classified as individualistic (e.g., California and Oregon). It should be noted however that there are two instances where only individualism, but not collectivism, predicted attitudes towards PAS: one was with a Polish student sample (Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002) and another with an American student sample

(Kemmelmier, Burnstein, & Peng, 1999). One explanation for the lack of evidence for collectivism in these two studies is that they briefly mentioned suicide without presenting information about family context (e.g., whether the person is married or has children), which are relevant for those with a collectivist orientation. There is no literature that examines the role collectivism plays on attitudes towards suicide while highlighting the social/family aspects of the suicide.

4. Empathy and Attitudes towards Suicide

Broadly speaking, empathy is the ability or tendency to take the perceived perspective of someone else and share their emotional experience (Decety & Ickes, 2009). For instance, if A observes B feeling sad for some reason X and if A becomes similarly sad because of X, then A is said to have empathy for B. Yet, empathy is also a multidimensional construct that has both cognitive and emotional components (Davis, 1980). Cognitive empathy involves the capacity to understand the perspective of distressed others, while affective empathy denotes the capacity to be compassionate with distressed others and to feel upset when witnessing the suffering of others. Empathy may be a relevant individual characteristic for attitudes toward suicide, suicidal people in particular, becomes it enables one to take the perspective of the suicidal person and to experience their suffering.

One study classified a sample of college students as either high or low on empathy (Mueller & Waas, 2002). Those high on empathy were found to be more willing to support and talk to a suicidal peer than those low on empathy. Another study asked nurses at the emergency department about how they would respond to patients who have deliberately poisoned themselves (McKinlay, Couston, & Cowan, 2001).

They found that nurses who endorse giving adequate care and support to self-poisoned patients believed more in empathizing with them than other nurses who believed such patients to be a waste of resources. It seems that empathy inclines people to offer support to suicidal people. However, it is unclear whether empathy affects attitudes towards suicide. On the one hand, empathic people would want the suffering of others to end, even if that meant endorsing suicide. On the other hand, they might want to help people feel better and opt for alternative solutions. The literature on whether empathy affects suicide approval is scarce. There is one known study that found no relationship between empathy and suicide acceptability (Mueller & Waas, 2002). However, the study relied on a questionnaire that asks about suicide in general without offering contextual information. It might have been different if a vignette was used, where personal information about the suffering of the individual is mentioned. Such information is more likely to provoke an empathic response in the participant.

B. Contextual factors

1. Spousal Acceptance and Attitudes towards Suicide

People who end their own lives most often leave grieving families behind; families whose reaction to the death may include shame, shock, guilt, a sense of abandonment, and of course grief − let alone the stigma and the concomitant lack of social support (Jordan, 2008; Cerel, Jordan & Duberstein, 2008). When people view suicide in general, or suicidal people in particular, they may consider the effect it can have on the family, which consequently influences how acceptable or permissible they find it. Indirect evidence for this link comes from Stack (1998) who found that married people are less accepting of suicide than single people, possibly because they can

imagine its effect on those close to the person, such as the spouse. Some studies used suicide vignettes to examine the impact of family on the acceptability of suicide. For instance, the vignettes used by Deluty (1989) presented a person who wishes to end his or her life “despite protests from his [her] family and friends” (Deluty, 1989, pp. 318). He did not present scenarios where others around the person accepted their suicide decision. Later on, Frey and Hans (2016) manipulated family variables in the context of Family Assisted Suicide (FAS). They presented vignettes to community samples using a design known as multiple segments factorial vignettes (MSFV). In MSFV, the vignette is comprised of segments where certain variables are manipulated, and questions are asked at each segment. Participants answer each segment before listening to the later ones (Ganong & Coleman, 2006). The last two segments presented the marital status and number of children of the suicidal person and whether their spouse or friend accepts their suicide decision or not. The participants were then asked whether the person should be assisted in ending their life. Among other findings, they found that having children makes FAS less supported. Additionally, having a spouse or friend accepting the decision doubled the percentage of participants who thought the person should be allowed to die by suicide, yet the effect did not reach statistical significance. It should be highlighted that the outcome variable was whether the spouse or friend should *assist* in the suicide. It is one thing to accept someone’s decision to end their lives and refrain from intervening, and it is another thing to both accept the decision and help make it happen. It is possible that participants were uncomfortable with the fact that the friend or spouse were both accepting of the decision and that they also took part in it. There is no known study that investigated the effect of family variables on attitudes towards *unassisted* suicide.

C. Attitudes towards different suicidal stages.

"Suicide is highly complex and multifaceted" (p.295) and various models have been proposed to account for it (Brazilay & Apter, 2014). Many of these models differentiate between a *thinking* stage and an *acting* stage. Baumesiter (1989) posits that suicide is an escape from the self and can be divided into two stages: the first one involves aversive self-awareness, due to certain cognitive processes and life circumstances, followed by a stage of behavioral disinhibition that leads to attempting suicide. Likewise, Rory O'Connor (2011) differentiates between a motivational stage and a volitional stage; the former results from an interplay between cognitive and affective factors during which suicidal ideation and intent are formed. This stage can develop, through a series of moderators (e.g., impulsivity and access to means), into a volitional stage where suicidal action is carried out. Suicidal intent is recognized as an essential link between these thinking and acting stages (McAuliffe, 2002).

Given that suicide is comprised of multiple components (e.g., behavior, ideation with intent, and ideation without intent) that vary in gravity and prevalence, investigations of attitudes towards suicide should mirror these distinctions as well. Indeed, the literature on this subject is large and contains attitudes towards suicidal attempts (Sheehan, Corrigan, Al-Khouja, & Stigma of Suicide Research Team, 2016; Lester & Walker, 2006), suicidal ideation (Lund, Nadorff, Winer, & Seader, 2016), suicidal intent (Presto, Sherman and Dicarlo, 1995), and suicide in general (Kemmelmeier, Wieczorkowska, Erb, 2002). However, no known study compares attitudes of two different suicidal stages, such as attitudes towards suicidal ideation without intent vs. attitudes towards suicidal intent. It is worth asking whether people's attitudes towards suicide vary according to the nature of the suicidal stage. For

example, we would expect people to be more tolerant with passive suicidal ideation (e.g., statements such as “life is not worth living” or “I wish I were dead”) than with suicidal intent (e.g., “I’m going to kill myself”) or attempts. However, there is no known data to verify this speculation.

D. Conclusion

Attitudes towards suicide vary depending on characteristics of the evaluator. Prominent characteristics include depression, religiosity, individualism and (less consistently) collectivism. These characteristics fit within the social-psychological model of approval of suicide. High levels of stress make suicide seem as a viable choice, as such someone who is depressed may sympathize with those who opt for suicide. Social learning influences what one thinks is rightful or sinful, therefore, someone who is religious will believe that life belongs to God. Similarly, someone who is an individualist will value self-autonomy, and a collectivist will value connection to others. Lack of commitment to others and to convention incline individuals to consider their own needs above that of social considerations and may be more likely to accept or understand suicide whereas those high on collectivism are more likely to disavow it. Moreover, empathy seems to be a variable worth exploring in relation to attitudes towards suicide. In addition to characteristics of evaluators, attitudes towards suicide vary depending on the circumstances surrounding it such as the reason for suicide. However, not much is known about the acceptance of the suicide decision by the family or the friends, and whether this affects attitudes. This is a relevant variable because it allows us to infer whether attitudes towards suicide reflect a concern for the people

close to the individual. Finally, it is worth exploring whether attitudes vary according to the suicidal stage; there is no known study that has made such a comparison.

CHAPTER III

AIMS AND HYPOTHESES

A. Aims

This study aimed to investigate attitudes towards two suicidal stages while manipulating spousal acceptance of suicide and measuring relevant characteristics of the evaluators. The first stage was suicidal ideation where the person X was considering suicide, and the second was suicidal intent, where the person X decided to end his/her life. Spousal acceptance was manipulated in the second stage only. The individual characteristics measured included depression, religiosity, CIO and empathy. Because suicide due to mental illness is more stigmatized than other reasons for suicide (Deluty, 1989; Presto, Sherman, & Dicarlo, 1995; Frey & Hans, 199), and because of its relevance to clinical psychology, a vignette was presented to participants with a chronic mental illness as the reason for suicide. This is the first known study to manipulate spousal acceptance in the context of an unassisted suicide. This study explored the difference between attitudes towards suicidal ideation and attitudes towards suicidal intent, and was also the first known study to make such a distinction. Finally, this study aimed to measure the impact of a collectivist orientation under two different spousal acceptance conditions (acceptance of their partner's suicide decision vs. non-acceptance), unlike previous studies that measured collectivism with no information about family or others in general (Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002; Kemmelmeier, Burnstein, & Peng, 1999). Such information is relevant for collectivism because it highlights the social and emotional consequences of suicide.

B. Hypotheses

Higher levels of religiosity have been linked to less accepting attitudes towards suicide (Deluty, 1989; Lo Presto, Sherman & Dicarlo, 1995).

Hypothesis 1. a: Higher levels of religiosity will predict lower levels of favorable attitudes towards suicidal ideation.

Hypothesis 1.b: Higher levels of religiosity will predict lower levels of favorable attitudes towards suicidal intent.

Depression has been linked to more accepting attitudes towards suicide among community samples (Jeon, Park, & Shim, 2013; Lo Presto, Sherman & Dicarlo, 1995).

Hypothesis 2.a: Higher levels of depression will predict higher levels of favorable attitudes towards suicidal ideation.

Hypothesis 2.b: Higher levels of depression will predict higher levels of favorable attitudes towards suicidal intent.

Individualism has been linked to more accepting attitudes towards suicide (Eskin, 2013; Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002; Kemmelmeier, Burnstein, & Peng, 1999).

Hypothesis 3.a: Higher levels of individualistic orientation will predict higher levels of favorable attitudes towards suicidal ideation.

Hypothesis 3.b: Higher levels of individualistic orientation will predict higher levels of favorable attitudes towards suicidal intent.

Collectivism involves placing value on the wishes of others and subordinating one's goals to them (Triandis, 2018).

Exploratory Hypothesis 4.a: Higher levels of collectivism will predict lower

levels of favorable attitudes towards suicidal ideation.

Exploratory Hypothesis 4.b: Higher levels of collectivism will predict lower levels of favorable attitudes towards suicidal intent.

The literature on empathy and suicide approval is lacking.

Exploratory Hypothesis 5.a: There will be a relationship between empathy and attitudes towards suicidal ideation.

Exploratory Hypothesis 5.b: There will be a relationship between empathy and attitudes towards suicidal intent.

Due to lack of evidence on spousal acceptance on attitudes towards suicide (Frey & Hans, 2016).

Exploratory Hypothesis 6: The spousal acceptance of the suicidal intent will predict attitudes towards suicidal intent.

Because suicidal ideation is not equivalent to suicidal intent, attitudes towards the two may differ.

Exploratory Hypothesis 7: There will be a difference between attitudes towards suicidal ideation and attitudes towards suicidal intent in both groups.

CHAPTER IV

METHODS

A. Research Design

The study is a mixed-subject design. Participants read with a vignette that presented a genderless person, referred to as X, who contemplates then intends to end his/her life. Then participants were asked to rate how favorable they view suicidal ideation and suicidal intent, respectively. The reason for suicide is suffering from a chronic mental illness. All participants read the same vignette that presented X's suicidal ideation. As for X's suicidal intent, in one vignette X's spouse does not accept X's suicidal intent, in the other vignette the spouse does. Participants were randomized into one of the two conditions (accepting spouse vs. non-accepting spouse) by selecting one of two random symbols "RDO" and "ODR" which directed them to one of the two conditions. The dependent variables were attitudes towards suicidal ideation and intent. Additionally, levels of religiosity, depression, individualism, collectivism and empathy were measured as predictor variables of both attitudes towards suicide.

B. Participants

Participants were AUB students who were enrolled in PSYC 101/201. Students earned one extra credit for their participation. In order to determine the appropriate number of participants, the effect size of the independent variable needs to be known (Tabachnick & Fidell, 2007). The single study that manipulated acceptance of the suicide decision by others (Fans & Hays, 2016) did not provide an effect size. It was

assumed that the independent variable has a small to medium effect size (Cohen's f=0.16). Based on this effect size, a power of 0.80 and a 95% confidence interval, the required number of participants for two group is 150 for each one. This was calculated using the gpower function in R Studio for a balanced ANOVA Design. A total of 300 students was planned to be recruited for this study. However, fewer than 200 students were enrolled in PSYC 101/201 when the data was collected. We received responses from 152 subjects, 18 of whom did not answer the outcome measures. These 18 subjects were excluded from the study. At the end of the survey, subjects were debriefed about the purpose of the study, and they were asked if they still consented for their data to be analyzed. One participant did not wish for their responses to be included in the data analysis and another did not answer the question. Both these subjects were removed from the study. Two students did not answer the depression questionnaire and their responses were excluded from further analysis. The final number of subjects was 130 for all the analyses reported below.

C. Procedure

The study was approved by the Institutional Review Board at AUB. Before collecting the data, we wanted to see how participants would react to the condition of spousal acceptance. We speculated that participants might be surprised by the fact that a spouse would accept a suicidal intent by her/his partner. For this reason, we recruited nine students from the psychology department at AUB in a pilot study. They were presented with the vignette where the spouse accepted and supported the suicide decision. When asked about their perception of the spouse, they all voiced negative comments and reported disagreeing with her response. In order to mitigate the negative

reactions towards the spouse, we changed the final sentence in the second vignette from "X's spouse is saddened by this decision but has come to accept it and support X" to "X's spouse is *heartbroken* by this decision but has come to accept it". We tried to emphasize the impact of the suicide on the spouse, and we reduced the spouse's response from both acceptance and support to acceptance only. Additionally, one participant could not understand item three in the scale, which states "X's situation is very poor", so we replaced the word "poor" with "difficult". Following the pilot study, PSYC 101/201 students were invited to participate in the study via Limesurvey in exchange for one course credit. The data were collected in February, 2020.

D. Scales and Instruments

1. *Demographics*

Participants were asked about their gender, age and family income.

2. *Beck Depression Inventory II (BDI-II)*

The BDI-II is a self-reported measure that is widely used to quantify severity of depression symptomatology. It has 21 items that cover sadness, pessimism, past failure, loss of pleasure, guilty feelings, punishment feelings, self-dislike, self-criticalness, suicidal thoughts or wishes, crying, agitation, loss of interest, indecisiveness, worthlessness, loss of energy, changes in sleeping pattern, irritability, changes in appetite, concentration difficulty, tiredness or fatigue, and loss of interest in sex (Beck, Steer & Brown, 1996). For each item, the inventory asks the respondent to pick one out of four statements that describes him/her best during the last two weeks including the day of taking the inventory. The score ranges from zero to 63; higher scores indicate

more severe levels of depression. The internal reliability of the total scale in a sample of college students is high (0.90) (Storch, Roberti & Roth, 2004) and in nonclinical samples (0.93) (Beck, Steer & Brown, 1996). A two-factor solution in non-clinical samples accounted for the majority of variance, the factors are cognitive-affective and somatic with internal reliabilities of (0.87) and (0.74), respectively.

3. *The Centrality of Religiosity 10-item Scale (CRS-10)*

The CRS "is a measure of the centrality, importance or salience of religious meanings in personality" (Huber & Huber, 2012, p. 711). The scale covers five dimensions which are: (1) the intellectual dimension which refers to the extent to which one knows and thinks about one's religion and its tenets, (2) ideology which refers to the unquestioned beliefs that one has about life, transcendence and God, (3) public practice which refers to how much one participates in communal religious activities and rituals, (4) private practice which refers to how often one privately prays or meditates and how meaningful this is for the person , and finally (5) religious experience which refers to how much one experiences certain religious beliefs, such as the presence of divine intervention in their life (Huber & Huber, 2012, p. 711). The CRS can be administered as five, 10 or 15 items, with each dimension getting an equal number of items, from 1 to 3. In this study the CRS-10 will be used. The scores range from 10 to 50, with higher scores indicating higher religiosity. The ratings of the items differ depending on their type. Questions that ask about objective frequency (e.g. how often do you pray) are scored on a one-to-five scale, with "never" scored as one and "once a day" or more "several times a day" as five, more than one statement can share the same score such as score five. Questions that ask about subjective frequency or importance

are also scored on a Likert scale that ranges from (1) “never” and “not at all” to (5) “very often” and “very much so”. The CSR-10 was validated in 8 studies and has coefficient of internal consistency that ranges from 0.89 to 0.94 (Huber & Huber, 2012, p. 711). The authors provide no instructions to be used during the administration of the scale.

4. Vertical and Horizontal Individualism and Collectivism Scale

The scale is comprised of four parts that measures collectivism and individualism as well as attitudes towards hierarchy, authority and equality. Verticality refers to authority or hierarchy; highly vertical individuals emphasize both, while highly horizontal generally emphasize equality. The first part is horizontal individualism (HI) where both autonomy and equality are emphasized, people who are high on HI see themselves both as unique individuals who are still equal to others. The second part is vertical individualism (VI) where both autonomy and hierarchy are emphasized; people who are high on VI see themselves both as unique and unequal to others, and competition is very important to them. The third part is horizontal collectivism (HC); equality and harmony are very important to people high on HC. The fourth part is vertical collectivism (VC) where the person is part of the group and authority is respected; individuals high on VC value serving and sacrificing for their own groups (Singelis, Triandis, Bhawuk & Gelfand, 1995). Each scale has eight items that are rated on a Likert scale from (1) “completely disagree” to (5) “completely agree” and their alpha coefficients are 0.67, 0.74, 0.74 and 0.68 for the HI, VI. HC and VC scales respectively. Because the horizontal/vertical distinction is not relevant for the purpose of the study, the VC and HC scales will be collapsed into one. This is consistent with

the authors recommendation, since the correlation between the two scales is strong (r=0.39). Additionally, the VI scale will not be used due to its focus on competition which is not relevant to the study. 6 items will be chosen from the HI scale and three items from each of the HC and VC ones. Eskin (2013) collapsed the four scales into two primarily collectivism and individualism scales, written in Turkish, and found alpha coefficients of 0.63 and 0.62. It should be noted that Eskin did not follow the authors' recommendation not to collapse the HI and VI into one individualism scale (Singelis, Triandis, Bhawuk & Gelfand, 1995). For this study individualism will be measured using of six items from the HI scale, with a range from six to 18, with higher scores indicating a more individualistic orientation. Collectivism will be measured using three items from the VC scale and three others from the HC one. Scores will range from six to 18, with higher scores indicating a more individualistic orientation.

5. *Individual Reaction Index (IRI)*

The IRI is a four-subscale self-report measure that measures four dimensions of empathy: Fantasy (F), Perspective Taking (PT), Empathic Concern (EC) and Personal Distress (PD). People high on F find it easy to identify with fictional characters in films and stories. People high on PT can easily adopt the view of others. People high on EC are inclined to experience feelings of warmth and concern towards others. People high on PD are likely to experience distress when witnessing others suffering. The F and PT dimensions measure cognitive empathy while the EC and PD dimensions measure emotional empathy. Each subscale is comprised of 7 items that are rated on a scale from zero "does not describe me well" to four "describes me very well." Higher scores indicate higher levels of empathy. The internal reliability for the subscales ranges

between 0.7 and 0.78. Similar to Mueller's and Waas' study (2002), only the EC and PT were used in this study and their scores were combined into a final composite score. We opted for a unified measure of empathy because there was no reason to hypothesize that either affective or cognitive empathy alone would predict attitudes towards suicide. PT and EC are widely used together as a measure for empathy and their use as such is recommended (Wang, Li, Xiao, Fu & Jie, 2020). Composite scores range from 0 to 52 with higher scores indicating higher overall empathy.

6. *Suicide Vignette*

A two-part suicide vignette that is largely adapted from Frey and Hans (2016) was used as a stimulus. The vignette presents a middle-aged person, X, who suffers from a chronic mental disorder (refer to part V in the Appendix). In the first part the person contemplates suicide. In the second part the person decides to commit suicide. In one vignette, the spouse accepts the suicide decision, and in the other one, the spouse does not. Originally, the vignette stated that the spouse supports X's decision to end his/her life; however, due to pilot's participants' negative comments about the spouse, support was changed to acceptance.

7. *Attitudes towards Suicide*

A vignette-based measure developed by Lund, Nadroff, Winer, and Seader (2016) was used. The measure was used after each part of the vignette is presented. The measure is comprised of five items that ask about the vignette, and they are rated from (1) "strongly disagree" to (5) "strongly agree". Higher scores indicate more favorable attitudes towards suicide. One item is reverse coded, so it will be reversed back to

calculate the composite score. The composite score ranges from five to 25. The items were used on suicide vignettes in the presence of chronic mental illness, chronic physical pain and disability. The internal consistency is adequate; Cronbach's alpha ranged from .685 to .745 depending on the vignette. Based on the pilot participants' feedback, one word in item three was changed. The item was "X's Situation is poor" and became "X's Situation is difficult". In addition to the items on attitudes towards suicidal intent, we added a separate item that asked the participants whether they think X should receive religious burial ceremonies if X ended his/her own life. This item was reported separately in the results section and was not added to the final score of attitudes towards suicidal intent.

E. Statistical Analysis

The data were analyzed using R software for statistical computing (R Core Team, 2014). The data were screened for missing values, and Cronbach's alpha was calculated for the scales used. Descriptive statistics were computed for the demographic data. To identify predictors that might affect attitudes toward suicidal ideation (ATSID) and intent (ATSIN), multiple linear regressions were conducted of ATSID and ATSIN on participant characteristics, including depression, religiosity, empathy, individualism. The significant predictors of ATSIN were then used as covariates in an Analysis of Covariance (ANCOVA), with attitudes toward suicidal intent (ATSIN) as the dependent measure and spousal acceptance as the independent (grouping) measure (Groups A and B read about the accepting and non-accepting spouse, respectively). To evaluate the potential change between ATSID and ATSIN, a mixed ANOVA was conducted with

ATSID vs. ATSIN as the within-subject variable and spousal acceptance (Groups A vs. Group B) as the between-subject variable.

CHAPTER V

RESULTS

A. Sample Characteristics

The sample was undergraduate students enrolled in an Introduction to Psychology course (PSYC101/201) at the American University of Beirut. 87 were female (65.9%) and 42 were male (31.8) and three participants did not specify. The age range was 18 to 22 and the mean was 18.87 (*SD=0.89*). Eight (6%) reported Annual Family Income (AFI) less than $1000; 14 (10.6%) reported AFI between $1000 and $2000; 16 (12.1%) reported AFI between $2000 and $3000; 15 (11.3%) reported AFI between $3000 and $4000; nine (6.8%) reported AFI between $4000 and $5000; 12 (9%) reported AFI between $5000 and $6000; nine (6.8%) reported AFI between $6000 and $7000; six (4.5%) reported AFI between $7000 and $8000; three (2.2%) reported AFI between $8000 and $9000; eight (6%) reported AFI between $9000 and $10000; 28 (21.2%) reported AFI above $10000; four (3%) did not report their AFI. Descriptive statistics are shown in Table 2. The mean score of depression was 15.28 (*SD*=9.73) which indicates mild depression in the sample (Beck, Steer & Brown, 1996 as cited in Wang and Gorenstein, 2013). The mean score for religiosity was 32.48 (*SD*=9.74) which indicates an overall religious sample (Hubert, 2013). The remaining measures used a one-to-five Likert scale where higher scores indicate higher levels of the measure (more acceptability/favorability in the case of attitudes); any mean higher than the midpoint (i.e., number of items*three) would indicate a high level on the measure, and vice versa for average scores lower than the midpoint. The mean level of empathy was

39.94 (*SD*=8.39), which indicates a slightly low level of empathy; the mean for individualism was 21.72 (*SD*=3.8), which indicates a somewhat high level of individualism; the mean score for collectivism is 23.8 (*SD*=3.58) which indicates a high level of collectivism. The mean approval level of suicidal ideation was 15.8 (*SD*=4.42) which was close to the midpoint and indicated an almost neutral approval level of suicidal ideation; the mean approval level for suicidal decision was 13.35 (*SD*=4.42) for the non-accepting spouse condition, and 12.08 (*SD*=4.18) for the accepting spouse condition, respectively, both of which were below the midpoint and indicate slightly unfavorable attitudes towards the suicidal decision. The mean scores on the item that asked whether X should receive religious burial ceremonies were 4.06 (1.2) for the non-accepting spouse condition and 4.2 (1.22) for the accepting spouse condition, respectively, which indicate a favorable attitude towards x receiving religious burial ceremonies. As can be seen from table 2, Cronbach's alpha for the collectivism scale was poor (α= 0.55); thus, it was excluded from analyses.

B. **Missing Values Analyses**

The percentage of missing answers was small (0.55%), therefore no missing value analysis was done. Two participants did not fill the depression questionnaire, and their responses were excluded from analyses that included depression as a predictor. Three participants did not specify their gender, and their responses were kept. One participant did not answer an item in the ATSIN scale, and it was imputed with the average of the four other items scores. Eventually, responses from 130 participants were analyzed. Sixty-seven participants were randomly assigned to the accepting-spouse condition and 63 others to the non-accepting-spouse condition.

Table 1 Descriptive Statistics

Variable	M	SD	Range of responses	Range of scale	Cronbach's alpha	Evaluation of Cronbach's alpha*
Depression	15.28	9.73	0-48	0-63	0.89	Excellent
Religiosity	32.48	9.74	12-50	10-50	0.9	Excellent
Empathy	39.93	8.39	17-56	14-70	0.76	Good
Individualism	21.72	3.8	13-30	6-30	0.7	Acceptable
Collectivism	23.8	3.58	11-29	6-30	0.55	Questionable
ATSID	15.8	4.42	6-24	5-25	0.67	Acceptable
ATSIN				5-25		
Group A	13.53	4.42	6-23		0.7	Acceptable
Group B	12.08	4.18	6-21		0.65	Acceptable
Attitudes towards Burial ceremonies						
Group A	4.06	1.2	1-5	1-5		
Group B	4.2	1.22	1-5	1-5		

Note. Evaluation of Cronbach's alpha is based on the rules of thumb recommended by George and Mallery (2003)

C. **Predictors Correlations**

Table 3 shows the partial correlations between the four predictor variables. Religiosity was significantly correlated with depression (*r* = -0.2, $p < 0.01$), but it is a small correlation.

Table 2 Correlation Matrix

	Depression	Religiosity	Empathy	Individualism
Depression	1	-0.209**	-0.02	-0.12
Religiosity		1	0.141	0.066
Empathy			1	0.094
Individualism				1

Note. * p <0.05, ** p <0.01 on Pearson test

D. Multiple Regression

To identify the predictors of ATSID, a multiple linear regression was conducted with ATSID as the outcome variable, and depression, religiosity, empathy, and individualism as predictors. Adjusted R-squared for a linear model including all predictors was 0.138 (F (4,125) = 6.167, $p < 0.000$), and the model predicted 16% of the variability in ATSID. The model identified depression, religiosity and individualism as significant predictors of ATSID, whereas empathy was not significant (see Table 4 for statistics). Adjusted R-squared for a reduced model including only depression, religiosity and individualism as predictors was 0.144 (F (3, 126) = 8.287, $p < 0.000$) and

the model predicted 16% of the variability in ATSID, i.e., not significantly lower than the model that included empathy (F (125,126) = 0.002, $p = 0.964$). These analyses confirmed depression, religiosity and individualism as significant predictors of ATSID.

To identify the predictors and potential covariates of ATSIN, another multiple regression was conducted with ATSIN as the outcome variable, and depression, religiosity, individualism and empathy as the predictor variables. Adjusted R-squared for a linear model including all predictors was 0.164 (F(4,125)=7.326, $p< 0.0001$) and the model predicted 19% of the variability in the data. The model identified depression and religiosity as significant predictors of ATSIN, whereas individualism and empathy were not significant (see Table 5 for statistics). Adjusted R-squared for a reduced model including only depression and religiosity as predictors was 0.166 (F (2, 127) = 13.9, $p < 0.000$) and the model predicted 18% of the variability in ATSID, i.e., not significantly lower than the model that included individualism and empathy (F (125,127) = 0.797, $p = 0.452$). These analyses confirmed depression and religiosity as significant predictors of ATSID.

For both chosen models of ATSID and ATSIN, regression diagnostics were performed by inspecting the residuals of the final model. The residuals were evenly distributed around the fitted values confirming homogeneity of variance and confirming that a linear model was appropriate for these data. QQ plots of the residuals showed that the residuals adhered to the predicted quantiles, and were normally distributed. Cook's distance was calculated on the residuals to identify potential outliers. For ATSID, cook's distance for 24 observations exceeded the criterion of 4/degrees of freedom (final model). A multiple regression of ATSID on the three significant predictors, excluding the 24 outliers revealed similar results to those reported above (Adjusted R

squared was 0.22 and F(3,112)=12.25, $p < 0.000$), so the outliers were retained. For ATSIN, cooks distance for 23 observations exceeded the criterion of 4/degrees of freedom (final model). A multiple regression of ATSIN on the two significant predictors, excluding the 23 outliers revealed similar results to those reported above (Adjusted R squared was 0.28 and F(2,114)=24.06, $p <0.000$) Figures 1 and 2 4 show residuals vs. fitted values, Q-Q plots, Scale Location plots, Cook's distance plots, respectively, for ATSID and ATSIN, respectively.

Table 3 Multiple Linear Regression Parameters for ATSID

Model		Unstandardized Coefficients		Standardized Coefficient		
1		***B***	SE	β	t	P
	Intercept	11.429	3.062		3.732	0.000
	Depression	0.122	0.038	0.268	3.175	0.001
	Religiosity	-0.105	0.038	-0.231	-2.719	0.007
	Individualism	0.219	0.096	0.188	2.264	0.025
	Empathy	-0.001	0.043	0.003	0.044	0.964
2	Intercept	11.49	2.728		4.211	0.000
	Depression	0.122	0.038	0.268	3.188	0.001
	Religiosity	-0.104	0.038	-0.23	-2.752	0.006
	Individualism	0.22	0.096	0.188	2.288	0.023

Table 4 Multiple Linear Regression Parameters for ATSIN

Model		Unstandardized Coefficients		Standardized Coefficient		
1		***B***	SE	β	t	P
	Intercept	14.598	2.686		5.435	0.000
	Depression	0.094	0.033	0.232	2.788	0.006
	Religiosity	-0.128	0.033	-0.316	-3.777	0.000
	Individualism	-0.039	0.085	-0.038	-0.464	0.643
	Empathy	0.046	0.038	0.099	1.213	0.227
2	Intercept	15.356	1.34		11.458	0.000
	Depression	0.094	0.033	0.233	2.833	0.005
	Religiosity	-0.123	0.033	-0.304	-3.688	0.000

E. Analysis of Covariance

An analysis of covariance (ANCOVA) was conducted to evaluate the group effect of spousal acceptance on ATSIN after controlling for depression and religiosity. The model predicted 19% of variation in ATSIN (R^2=0.191, F(3,126)= 9.968, $p <$ 0.000). Consistent with regression analysis conducted previously, the ANCOVA revealed a significant linear relationship between ATSIN and depression (F(1,126)=14.297, $p <$ 0.000), and ATSIN and religiosity (F(1,126)=13.701, $p <$ 0.000). The spousal acceptance group effect was not significant (F(1, 126)=0.41, $p =$ 0.522). The interaction effect between each of the covariates and the spousal acceptance group variable were not significant (F(1,122)=0.003, $p =$ 0.954; F(1,122)=1.666, $p =$ 0.199; F(1,122)=0.622 $p =$ 0.431; for individualism, religiosity and depression, respectively),

confirming homogeneity of slopes. A Shapiro test on the residuals was not significant (w=0.994, $p = 0.914$), confirming that the residuals were normally distributed. Levene's test of differences between group variances was not significant ($F(1,128) = 0.35$, $p = 0.554$), confirming homogeneity of variance.

F. Mixed ANOVA

Figure 2 shows a boxplot of attitudes for each group for the ideation and intent conditions. The plot shows that acceptance ratings were higher for suicidal ideation than for suicidal intent for both groups, however the groups appear not to differ. A mixed factorial ANOVA on attitude with type of attitude (Contemplation vs. Intent) as the within-subject variable and spousal acceptance as the between-subjects variable revealed a significant effect of attitude type ($F(1,128)=59.47$, $p < 0.000$; Cohen's $d = 0.67$), confirming that acceptance ratings were higher for contemplation (mean rating) than for intent (mean rating). This was a large effect. The effect of spousal acceptance on attitudes was not significant ($F(1,128)=2.023$, $p = 0.157$), and neither was the interaction effect between attitude type and spousal acceptance ($F(1, 128)=1.52$, $p = 0.219$).

CHAPTER VI

DISCUSSION

The aim of the study was to compare between attitudes towards two distinct suicidal stages: ideation vs. intent; i.e. considering the possibility to end one's life vs. making the decision to end one's life. This is the first known study to have examined this distinction. Additionally, it aimed to explore whether attitudes towards suicidal intent are affected by whether the spouse has come to accept the suicidal intent of her/his partner. If such an effect exists, it would indicate that attitudes towards suicide are not only about the suicidal person, or suicide in general, but also about its strong emotional impact on people close to the suicidal person. Furthermore, the study investigated whether depression, individualism, religiosity, and empathy as personal characteristics, predict attitudes towards suicidal ideation and intent.

As hypothesized, depression and individualism were positive correlates of approving attitudes towards suicidal ideation, such that with higher levels of depression and higher levels of individualistic values among university students, attitudes towards suicidal ideation were more accepting. Also as hypothesized, religiosity was negatively associated with supportive attitudes towards suicidal ideation such that higher levels of religiosity were associated with less accepting attitudes towards suicidal ideation. These findings are consistent with the reviewed literature for depression (e.g., Jeon, Park, & Shim, 2013; Lund, Nadorff, Winer, & Seader, 2016; Presto, Sherman and Dicarlo,1995), individualism (Eskin, 2013; Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002) and religiosity (Domino & Miller, 1992; Stack and Kposowa, 2011), and demonstrate that certain psychological states (e.g. being depressed), specific values

(e.g. individuals are autonomous) and religiosity (e.g. praying and participating in religious ceremonies) significantly impacts one’s attitudes towards suicidal ideation by a fictitious person with mental illness.

Attitudes towards suicide were further examined by looking at the impact of individualism, depression and religiosity on attitudes towards suicidal intent. The study found that depression and religiosity were significant correlates of attitudes towards suicidal intent to end one’s life, whereas individualism did not significantly impact attitudes towards suicidal intent. The impact of religiosity on attitudes towards both suicidal ideation and intent is not surprising given that religious Christians samples tend to assign moral value to thoughts even if they do not carry intentions (Siev & Cohen, 2007), and that Islamic theology postulates that actions are measured by intentions as was said by the Prophet of Islam, Muhammad (Bukhari, Ahmad & Ali, 1956). Although, there are no known data on whether this is endorsed by Muslims generally, there is evidence that Muslim samples assign equal moral value to thoughts as they do to actions (Siev et al., 2017).

The broad effect of depression on attitudes may be due to the fact that depression itself can include suicidal thoughts and wishes (Diagnostic Statistical Manual 5, 2013) and is linked to suicide attempts (Hawton, Camabella, Haw, & Saunders, 2013). This connection between depression and suicidal ideation and behavior may incline depressed people to understand and be more accepting of suicidal ideation and intention among others suffering from mental illness. It is noteworthy that depression has been found to predict attitudes towards suicide in the context of contemplation (Lund, Nadorff, Winer, & Seader, 2016), intent (Presto, Sherman and Dicarlo,1995) and suicide in general (Jeon, Park, & Shim, 2013).

On the other hand, individualistic values significantly impacted accepting attitudes towards suicidal ideation but not towards suicidal intent. Considering that individualism has been found to significantly impact attitudes towards suicide in general (Eskin 2013; Kemmelmeier, Wieczorkowska, Erb, & Burnstein, 2002), it is unclear why it only significantly impacted attitudes towards suicidal ideation but not intent. It is possible that in the Lebanese context and culture, individualistic values allow for more supportive and understanding attitudes towards the painful thoughts of suicide, but have no impact towards the act of suicidal behavior given it is stigmatized and taboo in this context.

Empathy did not significantly impact neither attitudes towards suicidal ideation nor intent, disconfirming our exploratory hypothesis and indicating that being empathic had no bearing on accepting suicide as an option due to mental illness. However, this does not contradict the findings of Mueller and Waas (2002) that empathic individuals take suicidal wishes more seriously and are willing to engage more with suicidal peers. It seems that while empathic people in past research are more understanding and open to having a conversation about suicide, in our studies they were not more accepting of suicidal thoughts or intentions.

Our other exploratory hypothesis was supported in that there was a moderately sized significant difference between attitudes towards suicidal ideation and those towards suicidal intent. Participants' attitudes differed across two types of suicidal thinking: considering suicide and deciding on it. The main difference between the two types was that in the first stage the person, X, was contemplating the idea of suicide among other options (e.g. not ending one's life, or trying another treatment), and in the latter stage X had resolved any conflicts he/she had and decided to carry it out. The former stage

resembles O'Connor's (2011) motivational stage and the latter resembles the intermediary stage between the motivational and the volitional stage. The attitudes of the participants showed sensitivity to X's proximity to action: when X's suicidality was in the form of ideations, participants had relatively more positive attitudes. When X decided or intended on the suicide, participants' approval attitudes declined. There is no known study that distinguishes between attitudes between suicidal ideation and behavior, nor different types of ideation or thinking (e.g. ideating vs. intending). The closest literature on this distinction comes in studies that investigate thought-action fusion – i.e. whether thoughts are judged to be as equally important as intention and actions – in relation to religiosity (Siev et al, 2017; Rassin & Koster, 2002) and obsessionality (Williams, Lau & Grisham, 2013). This study highlights the perceived differences between the way people view or judge thoughts versus intentions in relation to suicide and demonstrates that the sample was sensitive to the differences between thoughts and intentions. While not identical to our distinction, Eskin et al. (2016) distinguish between two types of attitudes towards suicide: attitudes towards suicide in general and attitudes towards a suicidal peer which can have very different outcomes. It is possible to have a permissive attitude towards suicide, but still not be willing to hear out a friend who is considering it, or to have a non-accepting attitude towards suicide and yet be supportive towards a suicidal peer. Similarly in our study, participants have more accepting and understanding attitudes towards individuals with suicidal ideation, yet attitudes became less supportive when facing a situation of actual intended suicide. This kind of collective support of suicidal peers can also be found in a study that compared Swedish and Turkish school students. While the Swedish students were more accepting of suicide than their Turkish counterparts, Turkish school students were more

willing to be emotionally involved with and take responsibility for their imagined suicidal peer (Eskin, 1999). According to Eskin (1999), this difference in attitudes and support can account for the lower suicide rates in Turkey even though both countries have equal rates of suicidal ideation.

Finally, spousal acceptance of the suicide intent did not significantly impact attitudes towards X's intent to end his/her life, disconfirming our sixth exploratory hypothesis. On the contrary to what we had anticipated, a non-significant trend was observed whereby spousal acceptance of the suicidal decision was associated with less accepting attitudes towards suicidal intent. This could be due to the fact that spouses of people with mental illness are expected to help them maintain their treatments (Corrigan & Miller, 2009). The participants may consider the spouse's acceptance of the suicide intent to be encouraging of it or an expression of giving up on their partner. Indeed, the majority of the pilot study participants voiced negative comments about the spouse and wished for her/him to be opposed to the decision. It is possible that the participants believed that X communicated his suicidal decision to express the severity of his/her own suffering, fear of being a burden, and to test the spouse's love or commitment to caring for him/her. For example, it is common for patients to express suicidal desires to their doctors, not necessarily because they want to die, but because they are asking for help with what they are going through (Quill, 1993).

In this study, the sample, on average, was more accepting of suicide than other university student samples including Palestine, Saudi Arabia, Tunisia and Turkey (Eskin et al., 2016). However, different measures of suicide acceptability were used, and comparison across studies should be interpreted with caution. Interestingly, despite the participants' attitudes towards suicidal ideation or intent, participants thought, on

average, that X should receive a religious burial ceremony in case of X's suicide. The belief that religious burials are deserved shows that despite participants' not necessarily approving of X's decision, participants still acknowledged the right to a religious burial, demonstrating a general concern for the burial rights of any person who passes away. In a close or collective culture such as that in Lebanon, participants may also support religious burials out of concern for his family members.

A. Strengths and Limitations

This is the first known study to examine the differences between attitudes towards suicidal ideation and intent. While numerous studies examined different types of attitudes towards suicide, no other known study compared between attitudes towards different suicidal stages. Distinguishing between attitudes across different suicidal stages is important because suicidal behavior itself is diverse and includes several distinctions including, but not limited to, those between suicidal actions and thoughts. The study of attitudes towards suicide could benefit from addressing the diversity of suicidal behaviors and how this might reflect on the attitudes towards it. This study was a first step in this direction

There were several limitations for the study. First, we did not use a robust measure of attitudes towards suicide. As such, the results must be interpreted with caution. Reasons for the low internal consistency could be because not all five items measure suicide acceptability; item three states "X's situation is very difficult". Participants can acknowledge the difficulty of the situation, but they can still disagree that suicidal ideation and intent constitute an appropriate response to the situation. Additionally, the vignette presented a person with whom the participant has no personal

relationship, which limits the generalizability of the findings to real or close relationships. Second, the pilot findings demonstrated that participants had strong negative reactions towards spousal support towards their partner's decision, and a trend towards lower approval when the spouses accepted their partner's decision. As such, this may have been a confounding variable whereby the expectations placed on the spouse affected attitudes towards suicidal intent. Third, the sample size was too small to detect a moderate (hypothesized) effect size for the spousal acceptance and for the number of tests that were carried out Fourth, we cannot guarantee that our method of group allocation was completely random.

B. Implications and Future Directions

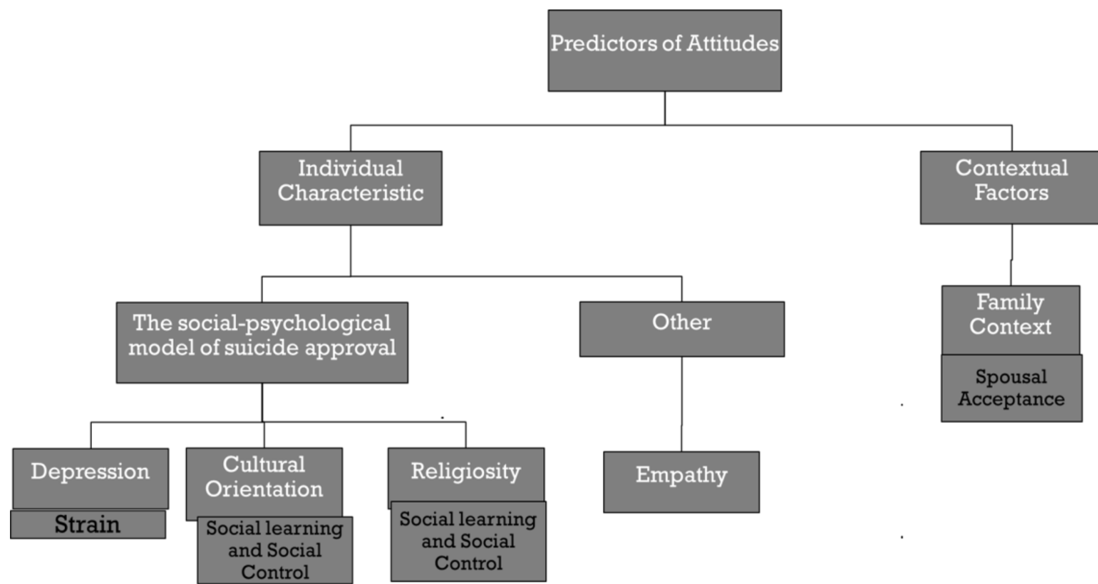
The results of the study imply that university students are not stigmatizing of suicidal experiences, but also are not supportive of suicidal action in the case of mental illness and suffering. Additionally, the distinction between suicidal ideation and intent, as evidenced by the difference in attitudes towards the two, suggests that students in Lebanon may feel more alarmed by suicidal action (e.g. intending or planning) than suicidal ideation, since they were less accepting of the former. This may translate into actions that prevent suicidal people from acting on their wishes, while still being able to express them. This would give suicidal people the opportunity to have their suicidal wishes heard empathetically and without rejection – an opportunity which is believed to have therapeutic value in psychotherapy (Orbach, 1999). More importantly, this opportunity is not coupled with the encouragement or support to carry out the suicidal intent.

Future studies should use more robust measures of acceptability of suicide and include a greater sample size. The suicide scenarios should clarify the efforts the spouse has made to dissuade the partner from suicide. Additionally, employed suicide scenarios in which the suicide decision is communicated should clarify that the purpose of the communication is to share one's decision with others, not to ask for their help or test their love. While such information might not eliminate the societal expectations placed on spouses, it would still disambiguate the intention behind the act of communication. Future studies should further examine the distinction people make when evaluating or judging individuals with suicidal ideation versus intent in order to explain those differences and to understand how and why attitudes differ according to which suicidal phenomenon is being considered. Such an understanding would give a more dynamic and nuanced understanding of how people respond to individuals along the continuum of suicide.

APPENDIX

A. Figures

Figure 1 Schema of Predictors of Attitudes towards Suicide



1. Online Consent Form

American University of Beirut
P.O. Box 11-0236
Riad El Solh, 1107 2020
Beirut, Lebanon
CONSENT TO SERVE AS A PARTICIPANT IN A RESEARCH PROJECT

Research Project: *Predictors of Attitudes towards Suicide among University Students in Lebanon*

Project Director: *Fatima El Jamil, Ph.D.*
Assistant Professor, Department of Psychology, AUB
fa25@aub.edu.lb
01-350000 Ext. 4372

Research Investigator: *Anas Mayya, M.A. Candidate*
Graduate Student in Clinical Psychology, Department of Psychology, AUB
akm15@mail.aub.edu

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*We are asking you to participate in a **voluntary research study**. Please read the information below and feel free to ask any questions that you may have. If you are younger than **18 years**, or older than **25 years**, you may **not** participate in this study.*

Nature and Purpose of the Project:

Every three days someone in Lebanon dies by suicide. However, Suicide in Lebanon is a taboo subject that is not often discussed even though it affects many people. Attitudes towards suicide helps understand how a certain society views suicide and also sheds light on the experience of suicidal people in this culture. There is no known study that has examined attitudes towards suicide in Lebanon. Moreover, we do not know how certain individual characteristics, such as empathy and collectivism, affect attitudes towards suicide. This study aims to learn about attitudes towards suicide in Lebanon, in particular, and how they relate to individual differences and contextual factors. Participants will read a suicide case and answer questions about it. Additionally, they will answer questionnaires on depression, religiosity, individualism, collectivism and empathy.

Explanation of Procedures:

Research participants in the present study consist of AUB students, recruited from the Psychology 101/201 participant pool. As a research participant, you will have to read this written consent form and consider carefully your participation. If you consent to do the study you, press “next” and if you do not consent to do the study press

"leave and exit." You will also be asked to answer questionnaires about depression, religiosity, individualism, collectivism and empathy, as well as questions about your gender, age and family income. Then you will be asked to choose one of two numbers that will present to you one of two hypothetical suicide cases. You will read the case and answer questions about it.

In order to receive your course credit you need to answer at least 70% of the questionnaires. Once you submit your answers you will receive a code which you will send to the Pariticipant Pool Coordinator (PPC), Dr. May Awaida at mawaida@aub.edu.lb. The co-incestigator will provide Dr. Awaida with a list of the codes of people who answered 70% or more of the questionnaire. If your code is on this list, Dr. Awaida inform your instructor about your participation. Your instructor will add one credit to your overall grade on the PSYC 201 course.

Potential Discomfort and Risks:

This study is more than minimal risk; you may experience emotional distress when you answer questions about depression and when you read the suicide case and answer questions about it. ***If you suspect that the subject of suicide may strongly upset you, we recommend that you do not participate in this study and seek other alternatives as specified below.*** *If you do experience emotional distress following or during the study we recommend that you see a counselor for free at the Counseling Center at AUB in West Hall Building Room 210, or you can call them at 01-350000 Ext. 3196. Additionally, if you or someone you know is suicidal you can contact Embrace's Suicide Hotline at 1564 from 12pm till 2am. Finally, we also recommend that you participate in the study during the working hours of the Counseling Center and Embrace's Suicide Hotline.*

Potential Benefits:

There are no direct benefits to participating in this study. However, the potential benefit is that you will participate in a study that will contribute to the fields of Clinical and Social Psychology. The results of this study, which will be based on approximately 260 PSYC101/201 students, will help determine predictors of attitudes towards suicide and how university students in Lebanon view suicide. The study will shed some light on the experience of suicidal people in Lebanon, including people contemplating suicide and other who have previously attempted suicide.

Costs/Reimbursements:

Your participation in this study incurs no costs and there are no monetary incentives.

Alternative Procedures:

Should you decide not to give consent to participate in this study, no alternative procedures will be offered. You may, however, contact the project director or research investigator to learn more about the experiment conducted.

Alternatives to Participation:

There are some alternatives to participation if you were to decide not to participate in this study. You have the option of writing a brief report. You may earn one research credit for each brief report you submit. If you wish to fulfill the three-hour requirement, you would need to write three papers. You can also combine the two methods – e.g., participate in one 2-hour study, and write one research report. The way you get your credits is up to you. You may also wish to earn only one or two credits, but three is the maximum possible. The brief report is a one- to two-paged critical review of an empirical study published in the journal "Psychological Science". Articles in "Psychological Science" tend to be typically short and cover the spectrum of psychological research and disciplines. The Journal is available at AUB's Jafet Library, and can be accessed online through the AUB library webpage. Each journal volume contains a number of individual issues. Try to choose an article that looks interesting to you and whose topic was addressed in your psychology 101/201 lectures. Brief reports must be submitted ***at least two weeks prior to the start of the final-examination reading period.*** *Your reports should be typewritten or word-processed, and double-spaced.*

Each report should include the following:

1. The exact citation for the article, including its title, author(s), and journal issue.

2. An explanation of what the research was trying to find out.

3. A brief description of the methods that were used in the research.

4. A brief summary of the results.

5. Your reactions to the paper, including your critical appraisal of its implications.

6. A photocopy or an electronic version (pdf) of the article.

This report should be turned in to your Psychology 101/201 instructor, who will in turn submit it to the PPC. You should keep a copy for your records.

Confidentiality:

The results of your participation will be kept confidential to the fullest extent possible. Your data will be in the soft format. The investigators will have access to your data but not to your name. The PPC will have access to your name and code number but not your data. Only information that cannot be traced to you will be used in reports or manuscripts published or presented by the director or investigator. Soft data inserted and analyzed on statistical software will be kept in a password protected laptop. After the five years have elapsed, the data will be deleted. Data will be monitored and may be audited by the IRB while assuring confidentiality.

Withdrawal from the Project:

Your participation in this study is completely voluntary. You may withdraw your consent to participate in this research at any point without any explanation and without any penalty. You are also free to walk out of the experiment at any point in time without any explanation. Refusal or withdrawal from the study will not affect your relationship with AUB, your instructor or your grades. However, if you decide to withdraw from the study or answer less than 70% of the questions, you will not earn course credit. If, however, you want to receive the full 3 credits, you may write a brief report or participate in another study to earn those extra points.

Who to Call if You Have Any Questions:

The approval stamp on this consent form indicates that this project has been reviewed and approved for the period indicated by the American University of Beirut (AUB) Institutional Review Board for the Protection of Human Participants in Research and Research Related Activities.

If you have any questions about your rights as a research participant, or to report a research related injury, you may call:

Institutional Review Board, AUB: 01-350000 Ext. 5445
irb@aub.edu.lb

If you have any concerns or questions about the conduct of this research project, you may contact:

Fatima El Jamil: fa25@aub.edu.lb, 01-350000 Ext. 4372
Anas Mayya: akm15@mail.aub.edu

Debriefing

If you are interested in learning about the outcome of the study, you may contact Anas Mayya. After data analysis is completed, a summary of the results could be emailed to you upon request.

Online Consent to Participate in this Research Project:

By consenting you agree to participate in this research project. The purpose, procedures to be used, as well as, the potential risks and benefits of your participation have been explained to you in detail. You can refuse to participate or withdraw your participation in this study at any time without penalty. You can download a copy of this form, or you can copy the text and paste it on a file on your device.

If you press "next" that means you agree to participate in the study, and if you press "exit and leave" that means that you refuse to participate in the study

B. Instruments

1. Demographics

What is your sex?

- Male
- Female

How old are you?

- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

What is your family monthly income?

- Less than 1000$
- Between 1000$ and 2000$
- Between 2000$ and 3000$
- Between 3000$ and 4000$
- Between 4000$ and 5000$
- Between 5000$ and 6000$

- Between 6000$ and 7000$
- Between 7000$ and 8000$
- Between 8000$ and 9000$
- Between 9000$ and 10000$
- More than 10000$

2. *Beck Depression Inventory II*

This questionnaire consists of 21 groups of statements. Please read each group of statements carefully. And then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today. Circle the number beside the statement you have picked. If several statements in the group seem to apply equally well, circle the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

0. I do not feel sad.

1. I feel sad much of the time.

2. I am sad all the time.

3. I am so sad or unhappy that I can't stand it.

2. Pessimism

0. I am not discouraged about my future.

1. I feel more discouraged about my future than I used to.

2. I do not expect things to work out for me.

3. I feel my future is hopeless and will only get worse.

3. Past Failure

0. I do not feel like a failure.

1. I have failed more than I should have.

2. As I look back, I see a lot of failures.

3. I feel I am a total failure as a person.

4. Loss of Pleasure

0. I get as much pleasure as I ever did from the things I enjoy.

1. I don't enjoy things as much as I used to.

2. I get very little pleasure from the things I used to enjoy.

3. I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

0. I don't feel particularly guilty.

1. I feel guilty over many things I have done or should have done.

2. I feel quite guilty most of the time.

3. I feel guilty all of the time.

6. Punishment Feelings

0. I don't feel I am being punished.

1. I feel I may be punished.

2. I expect to be punished.

3. I feel I am being punished.

7. Self-Dislike

0. I feel the same about myself as ever.

1. I have lost confidence in myself.

2. I am disappointed in myself.

3. I dislike myself.

8. Self-Criticalness

0. I don't criticize or blame myself more than usual.

1. I am more critical of myself than I used to be.

2. I criticize myself for all of my faults.

3. I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

0. I don't have any thoughts of killing myself.

1. I have thoughts of killing myself, but I would not carry them out.

2. I would like to kill myself.

3. I would kill myself if I had the chance.

10. Crying

0. I don't cry any more than I used to.

1. I cry more than I used to.

2. I cry over every little thing.

3. I feel like crying, but I can't.

11. Agitation

0. I am no more restless or wound up than usual.

1. I feel more restless or wound up than usual.

2. I am so restless or agitated, it's hard to stay still.

3. I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

0. I have not lost interest in other people or

activities.

1. I am less interested in other people or things

than before.

2. I have lost most of my interest in other people or things.

3. It's hard to get interested in anything.

13. Indecisiveness

0. I make decisions about as well as ever.

1. I find it more difficult to make decisions than usual.

2. I have much greater difficulty in making decisions than I used to.

3. I have trouble making any decisions.

14. Worthlessness

0. I do not feel I am worthless.

1. I don't consider myself as worthwhile and useful as I used to.

2. I feel more worthless as compared to others.

3. I feel utterly worthless.

15. Loss of Energy

0. I have as much energy as ever.

1. I have less energy than I used to have.

2. I don't have enough energy to do very much.

3. I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

0. I have not experienced any change in my sleeping.

1a I sleep somewhat more than usual.

1b I sleep somewhat less than usual.

2a I sleep a lot more than usual.

2b I sleep a lot less than usual.

3a I sleep most of the day.

3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

0. I am not more irritable than usual.

1. I am more irritable than usual.

2. I am much more irritable than usual.

3. I am irritable all the time.

18. Changes in Appetite

0. I have not experienced any change in my appetite.

1a. My appetite is somewhat less than usual.

1b. My appetite is somewhat greater than usual.

2a. My appetite is much less than before.

2b. My appetite is much greater than usual.

3a. I have no appetite at all.

3b. I crave food all the time.

19. Concentration Difficulty

0. I can concentrate as well as ever.

1. I can't concentrate as well as usual.

2. It's hard to keep my mind on anything for very long.

3. I find I can't concentrate on anything.

20. Tiredness or Fatigue

0. I am no more tired or fatigued than usual.

1. I get more tired or fatigued more easily than usual.

2. I am too tired or fatigued to do a lot of the things I used to do.

3. I am too tired or fatigued to do most of the things I used to do.

21. Loss of Interest in Sex

0. I have not noticed any recent change in my interest in sex.

1. I am less interested in sex than I used to be.

2. I am much less interested in sex now.

3. I have lost interest in sex completely.

3. Centrality of Religiosity Scale 10-item Version

Please answer the following 10 questions about yourself. Choose the statement that describes you most accurately.

	Not at all (1)	Not very much (2)	Modera tely (3)	Quite a bit (4)	Very much so (5)
2) To what extent God, deities, or something divine exists?					
6) How interested are you in learning more about religious topics?					

7) To what extent do you believe in an afterlife - e.g. immortality of the soul, resurrection of the dead or reincarnation?					
8) How important is it to take part in religious services?					
9) How important is personal prayer for you?					

	Never (1)	Rarely (2)	Occasionally (3)	Often (4)	Very Often (5)
1) How often do you think about religious issues?					
5) How often do you experience situations in which you have the feeling that God or					

something divine intervenes in your life?					

	A) Several Times a day (5) B) Once a day (5)	C) More than once a week (4)	D) Once a week (3) E) Once or three times a month (3)	F) A few times a year (2) G) Less often (2)	H) Never (1)
3) How often do you pray?					

	A) Several Times a week (1) B) Once a week (1)	C) Once or three times a month (2)	D) A few times a year (3)	E) Less often (4)	F) Never (5)

4) How often do you take part in religious services?					

4. Collectivistic and Individualist Orientation

Please answer how much you agree with each of the following statements.

<u>Individualism Items</u>

	Strongly disagree (1)	Somewhat disagree (2)	Neutral (3)	Somewhat agree (4)	Strongly agree (5)
1) I often do "my own thing"					
2) One should live one's life independently from others					
3) I prefer to be direct and forthright when discussing with					

people					
4) I am a unique individual					
5) I enjoy being unique and different from others in many way					
6) When I succeed it is usually because of my abilities					

Collectivism Items

	Strongly disagree (1)	Somewhat disagree (2)	Neutral (3)	Somewhat agree (4)	Strongly agree (5)
1) It is important to maintain					

harmony within my group					
2) My happiness depends very much on the happiness of those around me					
3) If a relative were in a financial difficulty I would help within my means					
4) I would sacrifice an activity that I enjoy very much if my family did not approve of it					
5) Children should be taught to place duty before pleasure					

6) Before taking a major trip, I consult with most members of my family and many friends					

5. Empathy

<u>Empathic Concern Items</u>

	Does not describe me well (A)	(B)	(C)	(D)	Describes me very well (E)
1) I often have tender, concerned feelings for people less fortunate than me					

2) Sometimes I don't feel very sorry for other people when they are having problems (reverse coded)					
3) When I see someone being taken advantage of, I feel kind of protective towards them					
4) Other people's misfortunes do not usually disturb me a great deal (reverse coded)					
5) When I see someone being treated unfairly, I sometimes don't feel very much pity for them (reverse coded)					
6) I am often quite touched by things that I see happen					

7) I would describe myself as a pretty soft-hearted person					

Perspective Taking items

	Does not describe me well (A)	(B)	(C)	(D)	Describes me very well (E)
1) I sometimes find it difficult to see things from the "other guy's" point of view (reverse coded)					
2) I try to look at everybody's side of a disagreement before I make a decision					

3) I sometimes try to understand my friends better by imagining how things look from their perspective.					
4) If I'm sure I'm right about something, I don't waste much time listening to other people's arguments (reverse coded)					
5) I believe that there are two sides to every question and try to look at them both					
6) When I'm upset at someone, I usually try to "put myself in his shoes" for a while					
7) Before criticizing somebody, I try to imagine how I would feel					

if I were in their place					

6. Vignettes

Prior to the vignettes the students will read the following statement: The following scenarios are about suicide. If you feel disturbed by them, you may withdraw from the study at any time.

Vignette 1 (Disapproving Spouse)

Part A

X is a Lebanese 45-year-old married individual, does not have children. X has been suffering from a chronic mental illness since early adulthood. X, X's psychiatrist and psychologist have been unable to improve X's condition, despite trying multiple treatments, including psychotherapy and medication. The condition has severely impacted X's quality of life including the personal, social and professional aspects of it. X is very depressed and is contemplating suicide.

Part B

X has carefully and rationally weighed the options and does not want to continue living with this chronic emotional pain anymore. X has decided to commit suicide. X's spouse is heartbroken by this decision and does not accept it.

Vignette 2 (Accepting Spouse)

Part A

X is a Lebanese 45-year-old married individual and does not have children. X has been suffering from a chronic mental illness since early adulthood. X, X's psychiatrist and psychologist have been unable to improve X's condition, despite trying multiple treatments, including psychotherapy and medication. The condition has severely impacted X's quality of life including the personal, social and professional aspects of it. X is very depressed and is contemplating suicide.

Part B

X has carefully and rationally weighed the options and does not want to continue living with this chronic emotional pain anymore. X has decided to commit suicide. X's spouse is heartbroken by this decision but has come to accept it.

7. Attitudes towards Suicide

Questions for Pilot Study

A. What is your perception of the spouse of X?

B. Do you have any other comments on the study?

Attitudes towards Suicidal Ideation.

	Strongly disagree (1)	Somewhat disagree (2)	Neutral (3)	Somewhat agree (4)	Strongly agree (5)
(1) I can understand why X would consider ending their own life.					
(2) I think X should have the right to feel that way.					
(3) X's situation is very difficult.					
(4) X has a lot to live for. (reverse coded)					
(5) If I were in X's situation, I would probably feel the same way.					

<u>Attitudes towards suicidal intent</u>

	Strongly disagree (1)	Somewhat disagree (2)	Neutral (3)	Somewhat agree (4)	Strongly agree (5)
(1) I can understand why X would want to end their own life.					
(2) I think X should have the right to suicide.					
(3) X's situation is very difficult.					
(4) X has a lot of to live for. (reverse coded)					
(5) If I were in X's situation, I would probably make the same decision.					

(6) Do you think X should receive religious burial ceremonies or prayers if they end their life					

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