HAIGAZIAN UNIVERSITY

Intrinsic, Extrinsic Religiosity and Gender as Predictors of Attitudes towards Mental Illness among Lebanese University Students

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A Thesis submitted to the Faculty of Social and Behavioral Sciences in partial fulfillment of the requirements for the Master of Art in Psychology – Emphasis: Clinical Psychology at Haigazian University.

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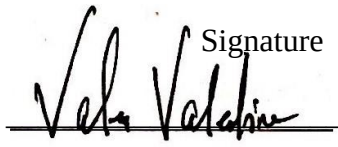

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By Valen Valentine

is accepted by the Graduate Thesis Committee as satisfying the thesis requirements for the degree Master of Arts/ Clinical Psychology

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Abstract

This study examines the extent to which Allport's two forms of religious commitment (intrinsic (I) and extrinsic (E) religiosity), as well as gender predict attitudes toward mental illness in a sample of 200 Lebanese university students of both sexes and aged between 18 and 25 years. Religiosity was measured by Gorsuch and McPherson's Religiosity Scale (I/E-R) which further distinguishes between extrinsic-personal (Ep) and extrinsic-social (Es) religiosity. Attitudes toward mental illness, namely stigma, were measured by the Community Attitudes toward the Mentally Ill scale (CAMI). Findings revealed that participants on average had positive attitudes toward mental illness, and were low on all three dimensions of religiosity (I, Ep and Es). A hierarchical multiple regression, after controlling for demographics, found no significant prediction of Ep and Es for the outcome variable, yet contrary to literature findings, participants high on intrinsic religiosity (I) had negative attitudes toward mental illness ($r = -.18$, $p < .05$), and there was a significant positive relationship between I and Es ($rs = .27$, $p < .01$). In line with literature findings, there was a significant positive relationship between I and Ep ($rs = .63$, $p < .01$). In line with previous literature, gender was a significant negative predictor of overall attitudes towards mental illness, suggesting a more positive attitude toward mental illness for women. There is optimism in the overall finding that, contrary to previous literature on stigma and mental illness in Lebanon, our sample showed positive attitudes toward mental illness, as well as in the finding that religiosity did not predict attitudes towards mental illness, in a region where religion has been shown to contribute to the stigma against mental illness. This may be an indicator that traditional religious-oriented mindsets concerning mental illness may be changing. However, in light of the unexpected relation between intrinsic religiosity and stigma, as well as between I and Es, the concept of religiosity as per Allport's original formulation and later research on the dimensions of religiosity, is re-examined and interpreted in relation to the Lebanese socio-cultural context.

Keywords: extrinsic religiosity - intrinsic religiosity – gender - stigma - mental health - mental illness - Lebanese university students

Chapter I

Introduction

Stigma is generally referred to as a discrediting attitude towards an individual that reduces their value from "whole" to "tainted" (Goffman, 1963). Mental health stigma is the lack of social acceptance a person faces due to a mental health condition. The World Health Organization (WHO) (2001) identified stigma towards people with mental illness as "the single most important barrier to overcome in the community". In both low- and high-income countries, stigmatization of mental disorders has been manifested through stereotyping, fear, embarrassment, anger, and rejection or avoidance (WHO, 2017). Negative stereotypes about mental illness subtly vary according to the type and severity of mental disorder, yet are largely similar across different cultures (Quinn & Knifton, 2014). Stigma about mental illness is found across all ages, races, religions, ethnic groups and socio-economic classes (Arboleda-Flórez, 2003). The universal stigma against mental illness, well-documented in cross-cultural research, is expressed differently in different parts of the world, and those differences in expression have a different impact on how persons with mental illness live their condition on one hand, and on the course the mental illness takes on the other hand. This calls for much concern considering that as many as 450 million people in the world suffer from a mental or behavioral disorder, and one in four families has at least one member with a mental illness, the economic burden of which, in terms of long-term treatment and lost productivity, is considered to be the biggest among all health issues in the world, and is on a steady increase (WHO, 2003). Latest statistics reveal that among all mental illnesses, depression alone affects an estimated 300 million people (WHO, 2018). What is more alarming is that the stigma against mental illness is perhaps the most significant factor that discourages people with mental disorders to seek

mental health services out of embarrassment due to self-stigma (where the individual belonging to the stigmatized group internalizes public prejudice and directs it toward him/herself), or, if in treatment, to continue therapy (Ciftci, Jones & Corrigan, 2013). According to Gulliver, Griffiths and Christensen (2010), this is true not just for adults but for younger people with mental illness as well, where stigma and embarrassment were shown to be the most prominent barrier to help-seeking among adolescents and young adults between 12 and 25 years of age.

In non-Western countries such as Africa, Asia and the Middle-East, and particularly in the Arab world, where deeply-anchored cultural norms emphasize the preservation of group cohesion and harmonious social relationships, mental illness is strongly stigmatized (Ciftci et al., 2013; Scull et al., 2014; Ahmad, El Jabali & Salam, 2016; Al Alawi, Al Sinawi, Al Maqbali & Al Hatmi, 2016; Al-Awadhi et al., 2017). In line with such norms, an individual's behavior in the Arab world is a mirror of his/her family's values, status, and reputation; if the individual deviates, as in becoming afflicted with mental illness, then the entire family's image is shattered by blame and shame (Okasha, 2008; Al Alawi et al., 2016). However, while caution is recommended in labeling cultures as exclusively collectivistic or exclusively individualistic (Cohen, Shengtao Wu and Miller, 2016), the Arab world is described in cross-cultural research as collectivistic, with the omnipresence of Islam as the religion of the vast majority of Arabs. As a result of both the socio-cultural and religious factors, people in the Arab world, including Lebanon, tend to hold a God-centric view toward disease in general, acknowledging God's role in controlling health and illness in humans (Merhej, 2019).

In Lebanon, the stigma against mental illness remains a big challenge (Ministry of Public Health, 2015). Moreover, in Lebanon, characterized by high religiosity among its eighteen various religious communities, religion plays an important role whereby people pay

special attention to beliefs about sin in their views of the causes and treatment of mental illness (Rayan & Fawaz, 2017; Abi Doumit et al., 2019). In a study on the national lifetime prevalence of psychiatric disorders in Lebanon, one-fourth of the Lebanese adult population met criteria for any of the DSM-IV disorders, with anxiety and mood disorders as most common disorders (Karam et al., 2008). The study showed that rates for seeking treatment were very low for all disorders, and this was attributed to financial constraints (absence of private insurance for mental disorders in Lebanon) as well as the stigma associated with mental illness (Karam et al., 2006; Karam et al., 2008). Stigma about mental illness, somatization of psychological symptoms, lack of human resources and cost of care are listed among the most common barriers to the delivery of mental health care in Lebanon (Chahine and Chemali, 2009). Thus, in a country where religion has an influential role on people's lives, and where mental health disorders and stigma prevail, it is important to assess the relationship between religiosity and attitudes toward mental illness.

Religion and Mental Illness

Throughout history, religious institutions have associated mental illness with shame, loss of faith and humiliation (Arboleda-Flórez, 2003). During the Middle Ages in Europe, abnormal behavior was attributed by the Church to supernatural forces such as demonic possession and witchcraft, and was dealt with through measures such as exorcism, torture and isolation (Kemp, 1985). In the West, up until the nineteenth century, mental illness was handled by the religious institutions, mostly in the Western Christian world (Dein, 2010). Allport (1963) says: "By tradition, the church and the synagogue are therapeutic communities. Throughout the ages, they, more than other institutions, have concerned themselves with the major crises of life" (Allport, 1963, 188). Historically, although the Church has been actively involved in the healing practices of people with mental illnesses, several accounts of past eras depict the negative attitudes of the more

theologically conservative Christian groups towards patients with mental illnesses, primarily due to the association of mental illness with personal sin and demonic possession. Contemporary conservative Christians still consider the possibility of possession in a patient with dissociative symptoms, and depression and anxiety as cases of spiritual failure, since their faith promises inner joy and peace (Peteet, 2010). Stanford (2007) surveyed 293 self-identified Christians (Protestants and Catholics) who were either suffering from a mental disorder, or parents of a child with a mental disorder, or spouses of a person with a mental disorder, for their views on how the Church responded to their needs and on the quality of their interaction with the Church. Results showed that up to 30% of the participants described their interaction with the Church as counterproductive to successful treatment, and that mental disorders of women, significantly more than men, were being dismissed by the Church. In an analysis of 21 publications (both quantitative and qualitative studies) estimating the perceptions and understandings of church-goers, church leaders and members of the US clergy of the contributing factors of mental illness and help-seeking behavior, over a period ranging from 2002 till 2013, findings revealed that stigmatization of people with mental illness persists within the Christian population, and highlighted the relationship between stigma and misinformation about mental illness, its causes and its treatment. Many of the surveyed Christians believed that mental illnesses result from sinful lifestyles and that relief would be achieved through repentance (Almanzar, 2017).

However, the relationship between religion and mental illness is not that simple; different religions have left behind them different legacies concerning views on mental illness. Since religions represent systems of beliefs, some beliefs within the same religion may have adverse and deleterious effects on mental health, such as stigma (what Hayward & Krause (2014) dub as the “dark side” of religion), while others have advantageous effects

(Flannelly & Galek, 2010). While guarding against the several methodological and procedural flaws in studies assessing the relationship between religion and mental health, Dein, Cook, & Koenig (2012) report that the majority of such studies indicates that religious individuals fare better than their secular counterparts in terms of psychological disorders such as schizophrenia, depression, drug and alcohol abuse, and teenage delinquency.

In Islam, physical and mental illnesses are considered as a test and/or punishment from God (Abu-Ras, Gheith, Cournos, 2008), and are dealt with through patience, meditation and prayers in line with the Muslim worldview that suffering and dying are part of life and a test from God (Rassool, 2000), and that suffering is not meaningless because there is a spiritual reason for it (Cinnirella & Loewenthal, 1999, p. 517). Thus, in the Muslim (extended) family, the afflicted individual is fully embraced due to a strong belief in God's will to cause and to heal illness. Adhering to the belief that illness is God's will is a great source of comfort and relief for Muslims.

In Judaism, Levin (2012) reports on a number of studies that consistently showed lower scores on psychiatric symptom indices (depression and anxiety) and higher scores on indicators of wellbeing for a sample of more religiously observant Jews living in the USA (which included a mix of clinical, community-based, and recruited samples). For Jews living in Israel, a study relating religious indicators (such as participation in synagogue activities, frequency of prayer and childhood religious education) to mental health outcomes (namely depression and life satisfaction) revealed a statistically significant and substantial effect for the "active synagogue participation" indicator on outcomes (less depression, more optimism, and better quality of life), implying both a protective buffer against depression and a promoter of positive well-being. Having received a religious

education was also significantly associated with optimism, while praying had the least significant effect (Levin, 2012).

In the context of Christianity, there is abundant research confirming the positive impact of religiosity on mental health: Park, Cohen and Herb (1990) investigated the role of religion in life stress adjustment among Catholic and Protestant college students, and found that religious coping was significantly perceived by Catholic and Protestant students as a protective factor against depression and trait anxiety in relation to controllable negative life-events (for Catholics) and uncontrollable negative life-events (for Protestants). Defining religiosity as religious attendance, Hintikka et al. (2001) investigated whether there were associations between frequency of religious attendance and life satisfaction (defined as a dimension of subjective well-being and a correlate of mental health) in the Finnish general population. Results showed that religious activity enhances life satisfaction and highlight its' beneficial role in maintaining mental well-being. Brewer et al. (2014) confirm the beneficial impact of religious beliefs on many health outcomes, such as subjective measures of well-being and quality of life, as well as on depression. Bradshaw and Ellison (2010) discuss how for Christians, the promise of eternal life serves as a powerful protective buffer against major psychological distress, as in, for example, undergoing a major financial crisis in one's occupational life. Such a promise seems to help shift one's focus away from mundane financial problems toward what awaits in the afterlife. Flannelly et al. (2006) examined the association between belief in life after death and six measures of psychiatric symptomology in a national sample of 1403 adult Americans and found a statistically significant inverse relationship between belief in life after death and symptom severity on all examined symptom clusters which included anxiety, depression, obsession-compulsion, paranoia, phobia, and somatization.

Conceptualization of Religiosity

The above discussed ambivalence in the role religion plays in the perception of mental illness was depicted by Gordon Allport in one of his earliest works on the matter, where he says: “There is something about religion that makes for prejudice, and something about it that unmakes prejudice” (Allport, 1966, 447). One year later, Allport and Ross (1967) publish their seminal article on the relationship between religion and prejudice, conceptualizing “religion” as one’s religious commitment and motivation. Although the term “religiosity” does not appear until the last page of that article, it is nevertheless implied throughout the article through the use of expressions such as one’s “experience of religion”, one’s “religious orientation”, one’s “attitude”, one’s “cognitive style”, or even “the role religion plays in the economy” of one’s life (Allport and Ross, 1967, 442).

Allport and Ross (1967) designed and developed the Religious Orientation Scale (ROS), which soon came to be one of the most broadly used methods in exploring the association between religious behavior and health. The ROS was developed on the basis of Allport’s theory that “the religious sentiment varies enormously from person to person. In some it is fragmentary, superficial, even trivial; in others it is deep and pervasive, lock - stitched into the whole fabric of being” (Allport, 1963, 193), and incorporated the notions of “intrinsic” and “extrinsic” religiosity. Thus, the person with an extrinsic religious orientation uses one’s religious views to provide security, comfort, status, or social support for oneself. In this sense, religion is not a value in its own right, it is utilitarian. The authors describe extrinsic religiosity as a literal translation of “turning to God” (Allport and Ross, 1967, 434). In the authors’ view, prejudice is a “useful” trait since it reinforces the feeling of belonging to a particular group (the in-group) in opposition to an out-group, it provides a sense of security, status and social support. Thus, a person with an extrinsic religious orientation is likely to favor prejudices against minorities, and adopt an attitude of intolerance against them. On the other hand, intrinsic religious orientation is not

instrumental, it is more "nuclear" (Allport and Ross, 1967, 434), as it does not depend on conformity to the group, nor does it seek status from any religious commitment. The person with an intrinsic religious orientation has an overarching religious commitment which internalizes values such as humility, compassion and tolerance of the other, and is thus likely to be more tolerant and less prejudiced toward minorities.

The original ROS was later revised by Gorsuch and McPherson (1989) to include two sub-dimensions for the extrinsic orientation: Extrinsic-personal and extrinsic –social. A person with a personally extrinsic religious orientation (Ep) would use religion for personal benefits, while a person with a socially extrinsic religious orientation (Es) would use it for social reward (Genia, 1993).

Neyrinck, Lens, Vansteenkiste and Soenens (2010) give a further clarification of the two sub-dimensions of extrinsic religiosity and how they relate to intrinsic religiosity, based on the concept of motivation as delineated in the Self-Determination Theory (SDT): On one hand, there is an intrinsic motivation, totally independent from any external incentive, which drives a person's religious orientation. That would fit Allport's original concept of intrinsic religiosity. On the other hand, there is extrinsic motivation which means that the person carries out a certain activity (church-going for example) for a reason that is separate from the activity itself. Initially, as per previous research, it was considered as a non-autonomous motivation since it lacks the sense of personal choice and volition. However, Neyrinck et al. (2010) see it is not as non-autonomous as was previously believed because extrinsic motivation may have different degrees of internalization: For example, when a certain behavior becomes personally and genuinely endorsed, extrinsic motivation becomes somewhat autonomous, as opposed to (1) behavior which is externally regulated and forced by others through the promise of a reward or the threat of a punishment (as in the case of an adolescent who is pressured by his/her parents to attend

church), or to (2) behavior that is pressured from within by introjected guilt or shame (as in the case of the person who attends church in order to avoid guilt). When the behavior has become personally authenticated and endorsed, Neyrinck et al. (2010) describe it as "fully internalized" or "integrated" because its' external motives (as in finding it personally relevant to one's values) have been aligned with one's values and interests in such a way that they form a coherent whole. Such an integration represents the most autonomous form of extrinsic motivation, and Neyrinck et al. (2010) refer to it as "internalized (extrinsic) motivation" and is associated with a more flexible, more open-minded, and more critical approach to one's religious commitment. Furthermore, there is a strong positive relationship between Allport's intrinsic religiosity and the "fully internalized" religious motivation, as conceptualized within SDT. This internalized dimension of extrinsic motivation matches Gorsuch and McPherson's extrinsic-personal (Ep) sub-dimension of extrinsic religiosity. Both concepts are similar (religion is a self-willed commitment) yet distinct (differences of integrated contents), and Neyrinck et al. (2010) emphasize the fact while intrinsic religiosity is essentially conceptualized as an autonomous behavioral regulation, Ep is still conceptualized as a goal pursuit. After all, and in spite of their similarity, they do pertain to different motivational concepts.

Conceptualization of Stigma

All of Allport's work centered on the notion of prejudice and one finds no reference in any of his works to the term "stigma". This may be due to the fact that the usage of the term "stigma" in the social sciences appeared for the first time in 1963 in Goffman's "Notes on the Management of Spoiled Identity" and gained popularity afterwards. Today, the concepts of stigma, prejudice, and discrimination are increasingly and alternately used by authors in the context of mental-illness stigma (Phelan, Link & Dovidio, 2008).

Stigma and prejudice may be used interchangeably to a certain degree, as this has been well established by Phelan, Link and Dovidio (2008) who reviewed eighteen theoretical models (nine for prejudice and nine for stigma) through theme coding and comparisons, and suggested that the social processes involved in stigma and prejudice are more alike than different: Both "involve categorization, labeling, stereotyping, negative emotions, interactional discomfort, social rejection and other forms of discrimination, status loss and other harmful effects" on the target (Phelan, Link & Dovidio, 2008, 11).

Stigma against mental illness, like prejudice, consists of three components: Cognition (which has to do with the knowledge the person has about mental illness), affect (which has to do with the negative emotions elicited by the stigmatized group) and behavior (which has to do with the discriminatory action –rejection or avoidance- against the stigmatized person) (Deverick, Russell & Hudson, 2017). The present study focuses on the "affective-attitudinal" component: Stigma against mental illness is thus defined as expressing malevolent (as opposed to sympathetic and benevolent) attitudes toward people with mental illness, viewing people with mental illness as inferior to oneself, believing that people with mental illness should be avoided and rejecting the idea of including people with mental illness in the community. Such a definition is based on the four components of the Community Attitude towards the Mentally Ill (CAMI) scale (the benevolence, authoritarianism, social restrictiveness and community mental health ideology subscales respectively), one of the most widely used and most reliable tools used in social science research on stigma (see a detailed presentation of the Scale in Methodology).

In the present study, stigma against mental illness is examined as a function of the two dimensions of religiosity identified by Allport and Ross (1967): As explained above, a person who has an extrinsic religious orientation is more likely to be prejudiced, therefore more likely to stigmatize people with mental illness, while a person with an intrinsic

religious orientation is less likely to be prejudiced, therefore more likely to be tolerant towards people with mental illness.

Gender and Stigma against Mental Illness

In addition to the variables of religiosity, the present study is interested in examining the relationship between gender and stigma against mental illness in the Lebanese context. Most of the studies that have either mentioned or researched stigma against mental illness in Lebanon do not highlight any gender difference. To our knowledge, only one study reported less stigma toward mental illness among female participants in a sample of 2289 community dwelling Lebanese people from different regions, educational levels, employment statuses, and aged between 18 and 70 years (Abi Doumit et al., 2019). In the literature in the context of gender and attitudes toward mental illness, studies show that women, in general, show less stigma towards mental illness than men. In a study using an Italian version of the CAMI Scale to investigate the attitudes of medical students towards psychiatric patients in Rome, Pascucci et al. (2017) reported a substantial difference between female and male students' attitudes towards mental illness, where female students showed less stigmatizing and more humanitarian attitudes towards people with mental illness. In Sweden, similar results were obtained in a study by Ewalds-Kvist, Högberg & Lützén (2013) using the CAMI Scale on 2391 respondents where women were found to hold a greater open-mindedness and were more positive to pro-integration regarding people with mental illness than men. In a study assessing attitudes towards mental illness amongst mental health professionals in the USA, Stuber, Rocha, Christian, & Link (2014) showed that, compared to the general American public, mental health professionals had significantly more positive attitudes toward people with mental health problems, with younger age, being a female and having more experience in the mental health field as most predictive of less stigma.

Aim of the research study

The present study is based on Allport's conceptualization of religiosity as it was elaborated in the context of prejudice. The early studies on religiosity investigated the relationship between "church-going" and other forms of religious commitment and attitudes towards what used to be dubbed as ethnic minorities in the sixties, such as "Negroes", Jews, and Others (Orientals, Mexicans, and Puerto Ricans). The authors do specify however that, for the construction of their scale, they had to "take" items from Levinson's 1956 Custodial Mental Illness Ideology Scale (CMI) (Allport and Ross, 1967, 436).

In light of the above discussed ambivalence in the role religion plays in the perception of mental illness, the present study aims at providing further answers to the question whether one's religious commitment acts in favor or against people with mental illness. In a country such as Lebanon where religion has an influential role on people's lives, and where mental health disorders and stigma about mental illness prevail, it is important to assess the relationship between religiosity and attitudes toward mental illness. How does the religious commitment of Lebanese people translate into their views of mental illness? Does the type of their religious commitment predict the extent to which they stigmatize mental illness? Although recent years have witnessed an increased research interest in the relationship between stigma and mental illness in Lebanon, no studies have yet tackled the religious component of this relationship. For example, Rayan and Fawaz (2017) examined cultural misconceptions about mental illness and their association with public stigma among Lebanese university students, while Abi Doumit et al. (2019) assessed the knowledge, attitudes and behaviors of the general population towards people with mental illness. In neither study was religiosity investigated.

Rationale

Speaking in very broad terms, this study is about the relation between religion and prejudice, a relation that has proved to be extremely controversial especially in today's world where the rise of fundamental religious movements is unprecedented, and religious fundamentalism, as understood psychologically has consistently been linked with prejudice promoting animosity toward out-groups (Jackson and Hunsberger, 1999). More specifically, this study is about the relationship between religious commitment and mental illness stigma among Lebanese university students. The rationale behind such an endeavor is to offer more insights into that controversy by clarifying the role religious commitment plays on attitudes towards mental illness: Does it seem to foster the stigma against mental illness, or does it serve as a buffer against it? In addition to the relation between religiosity and mental illness stigma, the present study, in line with previous literature, predicts a gender effect in the sense that women will be likely to show less stigma against mental illness than men.

Choosing a sample of participants within the age-bracket of 18 to 25 (late adolescence and early adulthood years) is justified by the fact that this age bracket is loaded with different commitments, personal goals, and motivations that are rooted in the dictates of society and parental influences and are later formulated more independently by greater self-consciousness and a more complex social identity. During those years, the self evolves to become an important source of value and intrinsic motivation (Pfeifer and Berkman, 2018). University students have served as subjects in several studies exploring students' experiences and perspectives on mental illness and stigma, and in a country such as Lebanon where mental illness is still heavily stigmatized and religiosity is highly valued, it is interesting to see how their religious commitment, a significant cultural, social and parental legacy, relates to their views about mental illness. Religion offers beliefs, moral

codes, and values upon which young people construct their personal belief systems, their sense of uniqueness and their worldview. Thus, and especially during the adolescent years, religion facilitates identity exploration as well as commitment at different levels (ideological, social and spiritual) and in different directions on a continuum which ranges from promoting tolerance and concern for others on one end, to devaluating the individual's identity at the expense of elevating the goals of the religion itself and paving the way for religious fundamentalism, on the other end (Ebstyne King, 2003).

In addition, university students within this age bracket are reported to be vulnerable with respect to experiencing mental health difficulties ranging from minor everyday conditions (such as feelings of worry and stress) to more serious health conditions (such as anxiety disorders and depression) (Gorczynski et al., 2017). Having some insights into how their religious commitment influences or not their views of mental illness in general and of their own mental health status bears important implications for individual management of one's mental health as well as for the clinical practice in the country. It is widely acknowledged that stigma against mental illness is perhaps the most significant factor that discourages people with mental disorders to seek mental health services out of embarrassment or, if in treatment, to continue therapy (Gulliver, Griffiths & Christensen, 2010 Ciftci, Jones & Corrigan, 2013; Ayvaci, 2016). Investigating stigma in relation to religiosity among Muslim Arab female university students, Vally et al. (2016) found that the higher the self-stigma and public stigma against mental illness, the less the willingness to seek psychological help. These findings, as well as many others stemming from research on mental illness stigma in the Arab world, are explained by the fact that mental illness is considered as a sign of weakness in one's faith, and that the best remedy would be to strengthen one's relationship with God through prayers and readings from the Qur'an (Sayed, 2015).

Significance of the Study

Based on the above rationale, this study bears significance at three levels sketched as follows: (1) significance at the level of research on mental illness in Lebanon, (2) significance at the level of research in social psychology in Lebanon, and (3) significance at the intervention level.

Research on mental illness in Lebanon: Lebanon is counted among the four countries with the highest number of publications in mental health research per year in the Arab world (the other three being Egypt, Kuwait and KSA) (Jaalouk et al., 2012), and has witnessed a remarkable increase in such research over the last two decades. Topics covered by these mental health publications vary from addressing prevalence of specific mental disorders (Karam, et al., 2006; Karam, et al., 2008; WHO, 2010; Farhood & Dimassi, 2011; Itani et al., 2014; Karam et al., 2016; Maalouf et al., 2016; Hajal et al., 2017) to more general topics such as mental health legislation, mental health policies and services, and cultural issues affecting mental health including stigma (Chahine & Chemali, 2009; Hijazi, Weissbecker & Chammay, 2011; Okasha, Karam & Okasha, 2012; Yehia, Nahas & Saleh, 2014; Kerbage, El Chammay & Richa, 2015; Ministry of Public Health. 2015; Rayan and Jaradat, 2106; Abi Doumit et al;, 2019). No specific reference to religiosity has been explored in existing mental health research in Lebanon. This study will hopefully provide such an addition.

Research in social psychology in Lebanon: As discussed in the above sections of this introduction, stigma is an integral component of prejudice and is by itself an important topic of interest to social psychologists. Looking at the publications in social psychology as listed on the website of the Lebanese Psychological Association (LPA) which is an

umbrella association for psychologists of all schools in Lebanon, the topic of religiosity and mental illness stigma does not figure. The only listed publication dealing with religion per se is a doctoral dissertation by Ismail, published in 2008, on Islam, Sufism and psychotherapy. Nor is the topic of religiosity and mental illness stigma explored in any of the publications by social psychologists affiliated with the American University of Beirut (AUB), as per the website of the department of psychology at AUB. Looking at the publications in social sciences at the Lebanese American University (LAU), only one article, published in 2019 by Gillespie-Lynch, Daou, Sanchez-Ruiz et al., deals with stigma about autism in Lebanon, but no mention of religiosity is made in reference to stigma determinants in Lebanon. Thus this study may be an important addition to research in social psychology in Lebanon.

Intervention: Dein (2010) observes that psychiatrists are more and more moving toward endorsing the view that it is appropriate to inquire about their patients' religious lives. As mentioned in their "Guide for Faith Leaders", the American Psychiatric Association (2016) acknowledges that religion and spirituality significantly influence the internal and external lives of people who seek psychiatric care. Moreover, they are an important part of the healing process. The Association advocates a collaboration between faith leaders (and any related agent) and psychiatry, both of whom share the common goal of promoting health, healing, and wholeness (American Psychiatric Association, 2016, 2). At the clinical level, the highly prevailing stigma against mental illness in Lebanon leads to much resistance (and sometimes blatant rejection) on behalf of the help-seeking patient who often uses his/her religious commitment to undermine the role of the treating psychologist or psychiatrist, thus resulting in the unsuccessful course or discontinuation of the therapy. In other words, the stigma is a significant part of dealing with the illness itself. Therapists should be able to understand the challenges patients face regarding the stigma

and assist them in comfortably and confidently deal with it. Knowing more about the type of the patient's religious commitment can be very useful for the treating psychologist/psychiatrist in helping the patient reconcile between his/her religious motivation and the professional input of the therapist. It is important for psychologists/psychiatrists to understand the role of spirituality in recovery. While in therapy, many issues arise that require reflection, thinking, talking, and, for some, praying. Therapists can play a vital role in each of these processes, as long as they are being empathic and non-judgmental toward their patient. Therapists should also remember that the fellowship, goodwill, and emotional support offered by religious or spiritual groups may also provide additional support to therapy and/or medication.

This study about the relationship between religious commitment and attitudes toward mental illness in Lebanon can be informative not just to clinicians at the intervention level, but also to those concerned with public health matters. Findings of our study may contribute to the design of awareness campaigns emphasizing how stigma about mental illness can hinder recovery, and how one's religious commitment can be reconciled with professional treatment-seeking.

Research Question and Hypotheses

The present study is based on the following overarching research question: To what extent do religiosity and gender predict stigma towards mental illness in a sample of Lebanese university students?

With respect to the religiosity variables, as per the literature findings, and based on the theoretical framework on religiosity and prejudice presented by Allport (1063), as well as the conceptualization of intrinsic and extrinsic religiosity presented by Gorsuch and McPherson (1989), the following hypotheses are derived:

After controlling for age, gender, mental health status of respondents, of respondents' relatives and of respondents' immediate entourage,

Hypothesis 1: Intrinsic religiosity of respondents as measured by the I-E/R Scale will predict positive attitudes toward mental illness as measured by the CAMI Scale (low stigma).

Hypothesis 2: Extrinsic-personal religiosity of respondents as measured by the I-E/R Scale will predict positive attitudes toward mental illness as measured by the CAMI Scale (low stigma).

Hypothesis 3: Extrinsic-social religiosity of respondents as measured by the I-E/R Scale will predict negative attitudes toward mental illness as measured by the CAMI Scale (high stigma).

With respect to the gender variable, the following hypothesis is derived:

Hypothesis 4: Gender will come out as a significant predictor of overall attitudes towards mental illness whereby females are more likely than males to have positive attitudes towards mental illness, as measured by the CAMI Scale.

Chapter II

Literature Review

This chapter presents an in-depth review of literature regarding the different variables of the current study. The first part of this literature review deals with the variable of religiosity; the second part deals with the variable of gender; the third part deals with stigma against mental illness, and the last part is dedicated to a general discussion of the status of mental health in Lebanon in order to better contextualize our topic.

1. Religiosity

Religiosity is the belief in God with a practice considered to purify one's soul, (Singh & Bano, 2017). Because religiosity is a core variable of the present study, it is important to define it and distinguish it from terms such as religion and spirituality. According to several studies, religion is defined as the relationship between an individual and God or greater power. Religiosity however, is not faith, but how people view and practice their faith. (Behere et. al 2013). Religiosity is also socially considered as an untapped resource for recovery from illnesses and troubles that individuals have no control over, such as serious mental health issues (Niekerk, 2018).

While religion and religiosity are more understood as communal by nature, spirituality is an individual practice that is about having a sense of peace and purpose. It relates to the process of developing beliefs around the meaning of life and connection to other people. Thus, religion is an institution, spirituality is a journey, and religiosity is a practice. (Niekerk, 2018).

Extrinsic and intrinsic religiosity

In his earliest work on religiosity, Allport (1966) distinguished between two types of religious commitment: “Communal” commitment is characterized by the need to satisfy one’s sense of belonging, of being affiliated to a religious group which would provide one with status, or solace for loneliness, or maybe just entertainment. The second type of religious commitment is “associational” and is characterized by the motive for religious fellowship. Allport further specifies that the communal type of religious commitment is associated with more prejudiced attitudes while the associational type is relatively less prejudiced. Later in that same article, Allport refers to the communal type as extrinsic (one that serves non-religious ends) and to the associational type as intrinsic (religion being an end by itself). For the extrinsically religious person, religion would be a habit, a family convenience, or some investment to use for personal comfort. Allport maintains that this type of extrinsic utilitarian religiosity correlates positively with racial and ethnic prejudice. Intrinsic religiosity, on the other hand, is not instrumental. People with intrinsic religiosity find their motive in religion and live according to their religious beliefs fully. (Behere et. al 2013). Extrinsic religiosity results in rejection and judgment of mental illness, while intrinsic religiosity results in a more accepting attitude, a motivation to understand mental illness, making it a safe healing environment. (Singh & Bano, 2017). Furthermore, Gorsuch and McPherson (1989) divided extrinsic religiosity into two sub-dimensions: personally oriented (referred to as Ep) and socially oriented (referred to as Es). An example of a socially extrinsic factor would be going to church to socialize with friends while an example of a personal extrinsic factor would be praying for protection, relief and safety.

Religiosity as a buffer against psychological distress

Throughout the history of mankind, there has been a strong social perception that religion can play a role in health and wellness for everyone, and the relationship between religious commitment and mental health has been widely explored in the literature.

According to Koenig et al. (2001), early research on the relationship between religiosity and mental health has shown an almost unanimous finding**:** that religious commitment has a positive effect on mental health, even more, a protective effect against psychiatric conditions. Ellison &Levin (1998) argue that religiosity is seen as a promoter of healing and that there is empirical and theoretical evidence for a faith-healing association. Levin (2009) further suggests that contemporary psychology can accommodate a healing power of faith. In his extensive review of the literature on the effect of religious involvement on mental illness and psychological distress, Levin (2010) concludes that the protective effect of religiosity on mental health is "statistically significant, replicated, and modest in magnitude" (Levin, 2010, p. 112).

Two prospective studies by Park, Cohen and Herb (1990) investigated the role of religion in life stress adjustment among Catholic and Protestant college students, and found that religious coping was significantly perceived by Catholic students as a protective factor against depression and trait anxiety in relation to controllable negative life-events, while high intrinsic religiosity played a strong buffer role against depression for Protestant students in coping with uncontrollable negative life-events. Defining religiosity as religious attendance, Hintikka et al. (2001) investigated whether there were associations between frequency of religious attendance and life satisfaction (defined as a dimension of subjective well-being and a correlate of mental health) in the Finnish general population. Results showed that religious activity enhances life satisfaction and highlight its' beneficial role in maintaining mental wellbeing.

In a general review of several studies examining the relation between religion, spirituality and mental health, Dein, Cook, & Koenig (2012) report that the majority of studies indicates that religious individuals fare better than their secular counterparts in terms of psychological disorders such as schizophrenia, depression, drug and alcohol abuse,

and teenage delinquency, noting the protective effect of religion (such as regular church attendance) against cognitive decline and the recurrence of depression. Brewer et al. (2014) examined the impact of religious coping and religious social support on health status and health attitudes in British Christian men and women aged between 17 and 96 years. They found that negative religious coping (such as feeling punished by God for sin or lack of faith, feeling abandoned by God and expressing anger at God) significantly predicted the consumption of higher quantities of alcohol, while positive religious coping predicted a more positive state of health and a higher self-perception of being more resistant to illnesses, as well as a significant beneficial effect on depression.

Similarly, Levin (2012) reports on a number of studies that consistently showed lower scores on psychiatric symptom indices (depression and anxiety) and higher scores on indicators of wellbeing for a sample of more religiously observant Jews living in the USA (which included a mix of clinical, community-based, and recruited samples). For Jews living in Israel, a study relating religious indicators (such as participation in synagogue activities, frequency of prayer and childhood religious education) to mental health outcomes (namely depression and life satisfaction) revealed a statistically significant and substantial effect for the "active synagogue participation" indicator on outcomes (less depression, more optimism, and better quality of life), implying both a protective buffer against depression and a promoter of positive well-being.

Bradshaw and Ellison (2010) investigated the role of religion in the context of socioeconomic deprivation and financial hardships on adults aged between 18 and 59 years, and found that several different aspects of religious life buffer against the deleterious influences of socioeconomic difficulties, namely religious attendance and the belief in an afterlife. The authors argue that for Christians, the promise of eternal life serves as a powerful protective buffer against major psychological distress due to a major financial

crisis in one's occupational life. Flannelly et al. (2006) examined the association between belief in life after death and six measures of psychiatric symptomology in a national sample of 1403 adult Americans and found a statistically significant inverse relationship between belief in life after death and symptom severity on all examined symptom clusters which included anxiety, depression, obsession-compulsion, paranoia, phobia, and somatization.

In the context of the Arab world, it is important to make the distinction between, on one hand, the cultural stereotypes about mental illness which stem from the socio-cultural fabric of the Arab society, and the role Islam, the main religion of Arab countries, plays in the perception of mental health. Because of the collectivistic and family-centered nature of Arab society, when a family member is afflicted with mental illness, he/she is fully embraced and managed by (the extended) family members and the community, due to the omnipresent role of Islam which is based on the strong belief in God's will to cause and to heal illness (Merhej, 2019). Thus, the worldview of Muslims towards all health issues is based on the notion of receiving illness and death with patience, meditation and prayers, for illness, suffering and dying are part of life and a test from God (Rassool, 2000). Adhering to the belief that illness is God's will is a great source of comfort to Muslims for whom suffering from (mental) illness is not meaningless, there is a spiritual reason for it (Cinnirella & Loewenthal, 1999).

Religiosity as contributor to the stigma against mental illness

Throughout history, religion has contributed to the stigma against mental illness: In the Western world, the source of mental illness stigma can be traced back to the New Testament where demonic possession was commonly attributed to people who exhibited what would be described today as emotional and behavioral disorders (Merhej, 2019), while in the non-Western world, mental illness was attributed to possession by an evil

spirit, or a curse from the "evil eye" or to a religious awakening translating a holy message from God (Mehraby, 2009). In his seminal article entitled "*The religious context of prejudice*", Allport (1966) says: "There is something about religion that makes for prejudice, and something about it that unmakes prejudice" (Allport, 1966, 446). He explains this paradoxical situation by arguing that in all times the fighters for civil rights, social justice, brotherhood and tolerance have been religiously motivated (Jesus Christ, Martin Luther King, Gandhi, etc.), but this does not cancel the fact that "members of Christian churches (…) are on the average more bigoted than non-churchgoers"(Allport, 1966, 448). He explains that religion is that part of our life that does not require objective, scientific monitoring and is thus prone to unwarranted assumptions and attitudes such as, on the one hand, being unjust and insensitive toward others (prejudice), and fair and tolerant on the other hand. Such unwarranted assumptions include, among others, the belief in one's superiority over others, or, in Allport's words, in "the moral superiority of privileged over unprivileged classes, over the backwardness of immigrants, and the undesirability of deviants" (Allport, 1966, 450). Cautioning against the simplistic conclusion that religion instills prejudice, Allport clarifies that religiously committed people require, by virtue of their self-doubt, insecurities, guilt feelings and fears, both prejudice and religion: Prejudice enhances their self-esteem, and provides them with a scapegoat upon whom to project their fears, while religion offers them a sense of security and relief, and their religious affiliation provides them a communal identification as well as a satisfaction for their need to belong.

Relating the topic of the present study (religiosity and mental illness stigma) to Allport's discussion, we can find numerous studies in the literature that support the view that religiosity does indeed predict stigmatized attitudes toward mental illness. For example, Gray (2001) examined attitudes toward mental illness among members of an

evangelical congregation in the United Kingdom and findings revealed that intrinsically religious people were less likely to blame others for alcoholism and drug addiction and to express less stigmatizing attitudes than extrinsically religious people. This is true not just for Western countries where most of the research has been done (Flannelly & Galek, 2009; Hayward & Krause, 2014; Almanzar, 2017), but also in the Arab world where there is substantive research highlighting the role religion plays in people's negative attitudes toward mental illness (Kadri et al., 2004; Al Khatib, 2012; Okasha, Elkholy & El-Ghamry, 2012; Dardas & Simmons, 2015; Al Alawi et al., 2016; Al Awadhi et al., 2017; Pocock, 2017) .

The relationship between religiosity and professional help-seeking

In general, high religiosity is associated with more help-seeking behavior from religious authorities than from mental health professionals, because doing the latter would indicate a lack of faith in God's healing ability (Abe-Kim et al., 2004). A study conducted by Pickard (2006) examining the help-seeking practices of adults showed that participants who scored high on intrinsic religiosity were more likely to have sought some form of mental health service than those who scored high on extrinsic religiosity. Ayvaci (2016) has indicated three levels characterizing how religiosity is an obstacle to mental health care access: the patient level, the psychiatrist level and the system level. At the patient level, the patient's conception and understanding of mental illness can be influenced by his/her perceptions of mental illness as supernatural or demonic, his/her dependence on religious help to treat disorders, the use of alternative treatments rather than professional psychiatric methods, a fear of going against religious teachings and, last but not least, a fear of potential discrimination and stigma. At the psychiatrist level, there seems to be a lack of consideration of the patient's religious history and beliefs in the professional community. At the systemic level, Ayvaci (2016) highlights the lack of cooperation between mental

health care facilities and religious institutions: Religious leaders are not familiar with the mental health care system and services, and this leads to a limited referral to professional institutions where patients can get the treatment they need.

In a qualitative study aiming at exploring how patients with religious/spiritual beliefs conceptualized their psychological problems, and how such beliefs influenced their help-seeking behavior, Mayers et al.,(2007) interviewed middle-aged participants who were currently receiving or had just completed treatment at a nationally-funded psychology clinic in London and who had all confirmed that "their religious/spiritual beliefs were crucial to their worldviews and way of life" (Mayers et al. , 2007, p. 5). Interview analyses showed that all participants used their religious beliefs to cope with their psychological problems before and even during therapy. However, prior to seeking therapy, they were worried that seeking "outside" (secular) help might weaken their faith. They later reported that the experience of having mental distress and the process of therapy were both seen as strengthening to their faith.

In another study examining whether the association between religiosity and mental health would be moderated by the extent to which people internalize the stigma of mental illness, and whether various forms of religiosity would be associated with less psychiatric symptoms among participants with mental illness, Quintana (2013) analyzed the responses of 104 African American and Latino participants with a history of substance abuse, mental illness and/or psychological treatment to a self-report questionnaire. Results showed that the more the participants self-identified as religious, the fewer psychiatric symptoms they reported. The results also showed that the degree to which one internalizes the stigma of mental illness eliminates the salutary effects of religion on mental illness.

2. Gender and the Stigma against Mental illness

Many studies have documented a gender effect. To start with, there are gender stereotypes regarding proneness to internalizing disorders (anxiety, depression) in women versus externalizing disorders (such as substance addiction) in men. Such stereotypes reinforce the social stigma around mental illness which serves as a barrier to treatment (World Health Organization, n.d.). Indeed, the symptomatology of certain psychological disorders is stereotypically more associated with men than women: Externalizing disorders such as alcohol addiction and psychopathy are viewed as "male" conditions while internalizing disorders such as major depression are viewed as "female" conditions. Keeping in mind the known fact that society disapproves of gender atypical behavior, Wirth and Bodenhausen (2009) tested the hypothesis that patients who present a gender-atypical mental disorder (depression in men or alcohol addiction in women) will be more stigmatized than patients who present a more gender-typical mental disorder. The material consisted of a set of case summaries of gender-identified persons (by first name) presenting either a gender-typical or gender-atypical symptomatic profile. Participants had to answer questions related to their feelings (negative or sympathetic) as well as their inclination to help each case. Contrary to the researchers' expectations, results showed the reverse pattern: Patients presenting a gender-typical mental disorder were more stigmatized and less likely to be helped, thus confirming gender stereotypes regarding mental illness: Those presenting an atypical-gender profile of mental illness were somewhat "spared" because of what Wirth and Bodenhausen (2009) interpret as a perceived situational attribution (the person is not genuinely responsible for his/her behavior because of a possible "biological" cause), while patients who presented a gender-typical mental disorder were perceived as more personally responsible for their condition. Such a study confirms that gender does appear to be a factor in mental-illness stigma.

Other studies in the context of gender investigate women's versus men's attitudes towards mental illness, and findings show that women, in general, show less stigma towards mental illness than men. In a study using an Italian version of the CAMI Scale to investigate the attitudes of medical students towards psychiatric patients in Rome, Pascucci et al. (2017) reported a substantial difference between female and male students' attitudes towards mental illness, where female students showed less stigmatizing and more humanitarian attitudes towards people with mental illness. Using the CAMI Scale, Abi Doumit et al. (2019) also reported less stigma toward mental illness among female participants in a sample of 2289 community dwelling Lebanese people from different regions, educational levels, employment statuses, and aged between 18 and 70 years. In Sweden, similar results were obtained in a study by Ewalds-Kvist, Högberg & Lützén (2013) using the CAMI Scale on 2391 respondents where women were found to hold a greater open-mindedness and were more positive to pro-integration regarding people with mental illness than men. In a study assessing attitudes towards mental illness amongst mental health professionals in the USA, Stuber, Rocha, Christian, & Link (2014) showed that, compared to the general American public, mental health professionals had significantly more positive attitudes toward people with mental health problems, with younger age, being a female and having more experience in the mental health field as most predictive of less stigma.

3. **Stigma Against Mental Illness**

Despite modern medical advances in the study of mental illness, and worldwide movements advocating a human rights-based approach to mental illness, people with mental illness continue to be socially segregated and mental illness continues to be stubbornly coupled with negative stigma (Ditchman, et al., 2013; Pescolido et al., 2013). This may be due to a general tendency to associate mental illness with drug addiction, prostitution, and criminality, and the view that persons with mental illness are responsible

for causing their condition, and do not deserve help (Corrigan &Watson, 2002). Negative stereotypes and distorted perceptions about mental illness (which include dangerousness, unpredictability, incapability, shame and blame, among others) subtly vary according to the type and severity of mental disorder, yet are largely similar across different cultures (Quinn & Knifton, 2014). Moreover, the awareness of these public stereotypes by the person with mental illness leads him/her to refuse treatment in order to avoid being labeled, which reduces the chances of recovery and potential reinsertion into the community (Corrigan, Druss and Perlick, 2014).

One may be tempted to think that stigma about mental illness is common only among people who have little or distorted knowledge about mental health; many studies across different cultures, however, have revealed that even mental health professionals working in mental health facilities (psychiatrists, nurses, vocational workers, social workers, physiotherapists, psychologists and medical students) hold the same negative attitudes toward people with mental illness as the general public (Al-Awadhi, et al., 2017; Nordt, Rössler & Lauber, 2006; Ogunsemi, Odusan & Olatawura, 2008).

4. The Status of Mental Health in Lebanon

The available literature on the prevalence of mental disorders in Lebanon and factors related to it, although limited, offers good insight on the current status of mental health in Lebanon. A number of epidemiological studies reflect the current situation and emphasize the need for reform in mental health legislation. An epidemiological study carried out by Karam et al., (2006) found that mental disorders are largely common in Lebanon and they outline the legacy of war-related trauma. Second, mental disorders go largely untreated as a significant number of patients do not receive nor seek appropriate health care. Another epidemiological study has assessed the lifetime prevalence of mental

disorders in Lebanon, directly targeting the effect of war on the first onset of disorders (Karam et al., 2008). Findings suggest that 25.8% of participants have exhibited at least one of the DSM-IV disorders at some point in their lives. However, this percentage may be inaccurate and under-reported due to the stigma and taboo that exist on the topic and the percentage of mental illness in Lebanon is most likely higher.

In another study done by Farhood and Dimassi (2011), the prevalence and predictors of psychiatric disorders, namely PTSD, depression in the general population of South Lebanon was assessed – a population that has suffered war trauma, having been under Israeli occupation for 2 decades. The Lebanese environment is characterized with on-going instability and violence, and exposure to traumatic events such as war is likely to elicit psychiatric disorders. Farhood & Dimassi (2011) show that war trauma has been significantly related to disorders such as PTSD, depression, somatization disorders and anxiety, as well as negative general health outcomes. For example, a high percentage of PTSD has been found among members of the Southern Lebanese population, with variation among villages: Villages that witnessed a relatively low number of war events and had appropriate social support had low prevalence of PTSD, depression and general health problems, whereas villages that witnessed a high number of war events and did not have enough social support had high prevalence of these disorders. Prevalence was high among females, the elderly, persons with low educational levels, married persons with children, and individuals who had experienced largely adverse war events (Farhood & Dimassi, 2011). Most researchers of the Lebanese situation seem to agree that mental health in Lebanon could be described as follows: (a) mental illness is prevalent, (b) appropriate care is insufficient and often inaccessible, (c) mental health of the Lebanese has been greatly influenced by recurring war-related events (2006 war) as well as past war-related events

(19975-1990 civil war) and (d) intentional help-seeking for mental health care is rare, due to stigma about mental illness.

Mental health legislation in Lebanon

Mental health legislation represents an important means of protecting the rights of people with mental illness by preventing discriminations and human rights violations, promoting liberty of the people and autonomy, as well as access to mental health care and community integration by safeguarding the legal framework for mental health services and providers. However, the legislation does not always guarantee the safety and protection of people with mental illness. In several countries across the Arab world, there is a lack of awareness among the general public and professionals about the existence and implementation of a mental health legislation (Merhej, 2019). In Lebanon, more particularly, patients' rights and pride are defied through their isolation from their loved ones (Merhej, 2019). It is essential for a country to have a mental health legislation that incorporates international human right standards that will contribute to a better protection of people with mental disorders (WHO, 2003).

The Lebanese mental health law that was created in 1983 and is being revised, dictated that a mental health authority should be formed to control and monitor the treatment of people with mental illness according to the international human rights standards, however this authority has not been formed yet (Merhej, 2019). The health system in Lebanon is one of the few among other Arab countries that does not have a fully established mental health policy, although efforts have been being exerted over the last few years to create one. The National Mental Health Programme (NMHP) was launched in May 2014 within the Ministry of Public Health with the support of the World Health Organization (WHO), UNICEF, and International Medical Corps (IMC), aiming to reform

mental health care in Lebanon and providing services beyond medical treatment at the community level, in line with the UN Convention for Human Rights and the latest evidence for best practices.

The National Mental Health Programme benefits from legislation and acts in different areas of mental health, but these isolated acts are not a part of a national mental health policy that would plan, organize and provide wide access to community based mental health care services to people who need them. The Lebanese government is now creating primary health care settings or associations that are cited in the legislation decree. Hence, the only possibility for full coverage is hospitalization in psychiatric hospitals, which results toward the institutionalization of psychiatric patients rather than their inclusion in our community, thus building up the stigma around them (Chammay & Richa, 2015). It is important to note that the most striking legislation still in use is the text that relates to incapacity dating back to the period of the Ottomans in Lebanon. It uses terms such as “the insane” and “the idiot” to describe people with mental disorders (Chammay & Richa, 2015).

A review of the Lebanese mental health legislation by Kerbage, El Chammay and Richa (2016) exposes nonconformity of psychiatric practices in Lebanon with international standards and recommendation and points out the absence of much needed legislation and policy. Professionals in the health-care settings who are diagnosing and treating people with mental illness in the Arab world are contributing to the stigma surrounding mental illness. If the patient experiences discrimination and stigmatization at the first help-seeking step, there will be very low chances that the patient tries to seek for help at a later time (Merhej, 2019). Chahine and Chemali (2009) conducted a study to assess the status of mental health care in Lebanon by (a) observing the current mental health services and (b) by interviews with primary care practitioners; the study identified several different barriers

to the delivery of mental health services such as negative attitudes by the physicians towards the patients.

On-going efforts have been taking place, however, and a remarkable milestone has been reached in 2017 with the coverage of the Ministry of Health of mental health services in hospitals and centers around Lebanon. It was also announced that eight mental health institutions will be opened by the Ministry of Health to provide better and needed mental health services by trained professionals in the field. This initiative was taken to treat mental illness as an equivalent to physical illness, which will promote acceptance of mental illness as a treatable health issue. ("A milestone reached for mental health in Lebanon", 2017).

Other efforts aimed at reforming mental health legislation in Lebanon are the integration of mental health services within primary health care (Hijazi, Weissbecker & Chammay, 2011). In order to address challenges such as referral mechanisms, improved clinic management, professional training programs, medication management and follow-up, the Ministry of Health has certified a training program for primary health care professionals that involved theory, on-the-job training and supervised clinical sessions, as a way to merge mental health care and primary health care . Training general healthcare workers in the identification, management and appropriate referral of cases of mental illness can achieve the integration of mental health into general health care. Such integrated services are less stigmatizing, more sustainable and more accessible (Hijazi, Weissbecker & Chammay, 2011).

Data from the country suggests that only 10% of those with mental health illnesses seek care, mainly from polyclinics that are operated by private doctors or charities, from general physicians at clinics but not by mental health professionals. Results further suggest that 85% of those people who do receive services are treated in the general medical sector

and mental health care systems, and the rest by religious leaders or healers. (Hijazi, Weissbecker & Chammay, 2011).

Currently, the required treatments for people with mental illness are limited by the lack of access and availability, on a national scale. This is due to a general lack of awareness of mental health issues in today's society. As established, religion still impacts today's social views, hence the importance of shedding light on the kind of impact religiosity has on help-seeking behavior by people with mental illness.

Chapter III

Methodology

Using a quantitative research methodology, this study examines the relationship between the variables of religiosity and gender and attitudes toward mental illness in a sample of Lebanese university students. More particularly, this study investigates the extent to which extrinsic versus intrinsic religiosity, as well as gender, predict stigma about mental illness.

Research Design

This study employed a non-experimental cross-sectional survey design to describe the relationship between religiosity, gender and mental illness stigma in Lebanese university students and generate different association patterns between the variables.

Participants

Participants for this study were chosen using non-probability convenience sampling. Inclusion criteria specified that participants had to be between the ages of 18 and 25, of male or female gender, English-speakers and of Lebanese nationality. Initially, the study was seeking to recruit more participants from different universities, but due to constraints on researcher's mobility imposed by the security conditions in the country at the time of data collection (discussed under limitations at the end of the study), the present study covered students' responses from only one university, the Haigazian University in Beirut. Given the prevailing situation in the country at the time when data had to be collected, the chosen setting was the most convenient one for finding a large enough amount of people within the study's age-range (18 – 25 years) who are English-speakers and who might be willing to participate.

As for sample size, we used a Recommended Power of 0.80 for alpha= 0.05, and determined the required number of participants for this study (simple correlation (r)) choosing a middle range point between Small (783) and Medium (85) Effect Size, yielding a total number of participants of 200 (Christensen et al., 2011, p.268)

An initial total of 200 participants were recruited for the present study. Twenty-eight of the recruited participants were excluded because they either did not meet inclusion criteria, did not fill out the required scales, or left a significant number of items unanswered. In addition, two more cases were removed, as they were found to be both univariate and multivariate outliers (refer to the Results section). As such, the final sample retained for the present study was 170.

The sample obtained consisted of Lebanese individuals 27.1% of whom were of male gender, 72.4% of whom were of female gender, and the mean age for all was 20.44 (M = 20.44, SD = 1.72). In addition to these demographics, 8.8% of the participants reported having a mental illness as diagnosed by a mental health professional (condition referred to as Participant's Mental Illness Status, or PMIS), while 84.1% reported not having been diagnosed with a mental illness; 12.4% reported having a relative diagnosed with a mental illness (condition referred to as Participants' Relative Mental Illness Status, or RMIS), while 82.4% reported not having a family history of mental illness, and 43.5% reported having someone within their immediate entourage diagnosed with a mental illness (condition referred to Participant's Immediate Entourage Mental Illness Status, or EMIS) whereas 50.6% reported otherwise.

Table 1
Demographics

Variable	n	%
Age	20.44 (Mean)	1.72 (SD)
Gender		
Male	47	27.1
Female	123	72.4
Participant Mental Illness Status (PMIS)		
Yes	15	8.8
No	143	84.1
Participant Relative Mental Illness Status (RMIS)		
Yes	21	12.4
No	140	82.4
Participant Immediate Entourage Mental Illness Status (EMIS)		
Yes	74	43.5
No	86	50.6

Instruments

Paper and pencil questionnaires were used to collect the needed data for the study. The three questionnaires were: one general demographics questionnaire (Appendix B), the Community Attitudes Toward The Mentally Ill, abbreviated as CAMI (Appendix C), and the Revised Intrinsic/Extrinsic Religious Orientation Scale, abbreviated as I/E-R Scale (Appendix D). All three questionnaires were in the English language, and the CAMI and I/E-R Scale were counterbalanced to minimize order effects.

Demographic Questionnaire. This questionnaire included questions about gender, age, nationality. It also included 3 questions about whether (1) the respondent suffered from a diagnosed mental illness, (2) someone from their immediate family suffered from mental illness, and (3) anyone from their immediate entourage (e.g. circle of friends, workplace, university...) suffered from mental illness.

Community Attitudes Toward the Mentally Ill (CAMI). Michael Dear and Martin Taylor developed the CAMI scale in the late 1970s. The goal of this scale is to measure and explain the bases for neighborhood opposition to community based mental health facilities in Canada. The CAMI Scale was developed by adapting two existing

scales, Cohen and Struening's Opinions about Mental Illness scale (OMI) and Baker and Schulberg's Community Mental Health Ideology (CMHI) scale, the first one measuring attitudes of hospital personnel toward mental illness, and the second one measuring an individual's commitment to a community mental health ideology (Taylor & Dear, 1981). Items from both scales were revised in order to capture community rather than professional attitudes toward mentally illness. The CAMI Scale was thus developed to include four sub-scales: Authoritarianism AU), social restrictiveness (SR), benevolence (BE), and community mental health ideology (CMHI). All revised sub-scales were tested for reliability. Three of the four scales have high reliability: CMHI (a = .88), SR (a = .80) and BE (a =.76). The coefficient for AU (a = .68), though lower, is still satisfactory (Taylor & Dear, 1981). .

Statements rooted in the AU construct reflect a view of the mentally ill as an inferior class requiring coercive handling; examples of AU items would include: 'There is something about people with mental illness that makes it easy to tell them from normal people', 'As soon as a person shows signs of mental disturbance, he should be hospitalized', and 'Mental patients need the same kind of control and discipline as an untrained child' (Taylor & Dear, 1981, 228). Items under the BE construct reflect a paternalistic, sympathetic view of patients based on humanistic and religious principles as well as the responsibility of society for the mentally ill; examples include: 'People with mental illness have for too long been the subject of ridicule', 'More tax money should be spent on the care and treatment of the mentally ill' and 'Our mental hospitals seem more like prisons than like places where the people with mental illness can be cared for' (Taylor & Dear, 1981, 228). Items under the SR construct describe a perception of mental illness as a threat to society, and of the mentally ill as dangerous and irresponsible, and call for social distance; examples include 'A woman would be foolish to marry a man who has

suffered from mental illness, even though he seems fully recovered', 'The people with mental illness are very unpredictable and should not be given any responsibility', and 'The mentally ill are a danger to themselves and those around them' (Taylor & Dear, 1981, 288). As for the CMHI construct, items express the downgrading impact of mental health facilities on the neighborhood and the danger posed by the mentally ill to local residents; examples include 'It is frightening to think of people with mental problems living in residential neighborhoods', 'Locating mental health facilities in a residential area downgrades the neighborhood', and 'Mental hospitals have a very limited role to play in a civilized society' (Taylor & Dear, 1981, 228).

Five out of the 10 statements on each of the mentioned constructs expressed a positive sentiment with reference to the underlying concept, while the other five were worded negatively. The statements were sequenced in 10 sets of 4; in each set the statements were placed by order of construct: AU, BE, SR and CMHI. The reason behind the sequencing was to minimize possibilities of response set bias as much as possible. (Taylor & Dear, 1981). The responses varied from 'strongly agree' to 'strongly disagree' on a 5-point Likert scale, and completion of the CAMI lasted around 20 minutes.

Factor analysis for construct validity of the scales showed a high degree of inter-correlation among the scales with the lowest being -.63 and the highest being -.77. The correlation matrix showed good results from a constant validity standpoint. The CMHI scale is strongly identified with the second factor (r=. 86); the benevolence scale is identified with the third factor (r=. 81) (Taylor & Dear, 1981).

The external and internal validity of the scales were analyzed using pretest and final data sets for the original study conducted in Canada. Predictive validity and construct validity were also assessed. High levels of internal validity were shown based on alpha

coefficients, item-scale correlations and factor analysis. The direction, strength, and consistency of the relationships showed strong support for the external validity (Taylor & Dear, 1981).

The Revised Intrinsic/Extrinsic Religious Orientation Scale (I/E-R). Gorsuch and MacPherson (1989) developed the Revised Intrinsic/Extrinsic Religious Orientation scale in 1989 as a revised version of the original Religious Orientation Scale (Allport, 1966; Allport & Ross, 1967). The I/E-R scale has strong psychometric properties and is currently considered to be the best measurement tool of extrinsic and intrinsic religious orientation. (Darvyri, Galanakis, Avgoustidis, Pateraki, Vasdekis & Darviri, 2014).

Intrinsic religious orientation was originally described by Allport (1963) as being "mature" in that the believer views religion as an end to itself without clearly identifiable external motives for doing so. Intrinsic religious orientation is not instrumental, it is more "nuclear" (Allport and Ross, 1967, 434), as it does not depend on conformity to the group, nor does it seek status from any religious commitment. Extrinsic religious orientation is considered "immature" in that the person with an extrinsic religious orientation uses one's religious views to provide security, comfort, status, or social support for oneself. In this sense, religion is not a value in its own right, it is utilitarian (Allport and Ross, 1967, 434). The original ROS was later revised by Gorsuch and McPherson (1989) to include two sub-dimensions for the extrinsic orientation: Extrinsic-personal (Ep) and extrinsic –social (Es). A person with Ep would use religion for personal benefits (praying for protection and relief), while a person with Es would use religion for social reward (going to church to make friends) (Genia, 1993).

The I/E-R contains 14 questions that are answered on a 5-point Likert scale (1=strongly disagree, 5=strongly agree) that would take around 10 minutes to complete.

There are three inversely-worded questions that measure the intrinsic dimension such as "prayer is for peace and happiness", eight questions that measure intrinsic religiousness, and three questions that measure each one of the extrinsic wings of religiousness; extrinsic social such as "I go to church because it helps me make friends' and extrinsic personal such as "it doesn't matter what I believe so long as I am good" (Darvyri et al., 2014).

The I/E-R has high predictive validity and accuracy to classification, because it establishes extrinsic and intrinsic scales as distinctive and separate structures for analysis. It has been standardized on different and several groups of populations and has good reliability levels. The intrinsic dimension has a Cronbach's $\alpha = 0.83$ while the extrinsic dimension has a Cronbach's $\alpha = 0.65$. The validity of the scale has been well supported through a variety of studies. Validity is reported to be 0.07 about intrinsic against extrinsic personal, 0.41 about two extrinsic subscales, and 0.12 about extrinsic social against intrinsic (Darvyri et al., 2014).

For reliability, internal consistency method was used and showed the scale to be reliable. The intrinsic religiosity subscale's reliability was $\alpha = 0.827$, Ep religiosity subscale's was $\alpha = 0.466$ and Es religiosity subscale's was $\alpha = 0.729$.

Procedure and Data Collection

Data collection proceeded over three full working days on the campus of Haigazian University in Beirut. A schedule for survey administration across different classes and different time-slots spreading from 8:00 am till 5:00 pm. had been set, and professors of selected classes had been contacted for their approval two weeks prior to the actual survey administration days. Each professor had received an email explaining the aim and description of the study, along with an attachment of the formal approval form of the study by the Social and Behavioral Sciences Research Ethics Committee at Haigazian University.

Participants did not receive any monetary compensation for participating in the study. All participants received a consent form and participation information letter prior to the questionnaires (Appendix A). Participants were informed through the consent form and verbally that the questionnaires and results are and will remain anonymous as no identifiers such as name or contact information were requested. They were also made aware that their participation is voluntary and that they may withdraw from the research at any point.

Participation was of minimal risk to the participants. The probabilities of discomfort from the questionnaires were not greater than what they would experience on a daily basis or during the performance of any test. In case of adverse impact, they were encouraged to contact the primary investigator. Participants interested in the results were also asked to contact the investigator to get a copy sent to them.

Consenting participants proceeded to fill in the demographics section, the CAMI and the I-E/R questionnaires. To avoid carryover effect (practice or fatigue), the simplest type of counterbalanced measures design was used by dividing the subjects into two groups where one group is administered the R-I/E scale first, followed by the CAMI Scale, and the other group is administered the CAMI Scale first, followed by the R-I/E Scale. Completion of the questionnaires took no longer than 20 minutes. Upon completion of both questionnaires, participants were debriefed about the study to avoid any mental stress that may have been caused by the questions and/or by the testing situation, and the investigator assured all of her availability to answer any question or address any concern.

Statistical Analyses

Descriptive and inferential statistics were applied using the IBM Statistical Package for Social and Behavioral Sciences (SPSS) version 2.0.

A correlation analysis was conducted among the predictor variables of intrinsic religiosity, extrinsic personal religiosity, and extrinsic social religiosity as well as the dependent variable of attitudes towards mental illness to assess the relationship between the variables at the bivariate level.

Moreover, a hierarchical multiple regression controlling for the demographic variables of age, gender, PMIS, RMIS, and EMIS was employed with intrinsic religiosity, extrinsic personal religiosity, and extrinsic social religiosity as the predictor variables under study, and overall attitudes towards mental illness was the outcome variable. The demographic variables of age, gender, PMIS, RMIS, and EMIS were entered into the first block and intrinsic religiosity, extrinsic personal religiosity, and extrinsic social religiosity were entered into the second block both using the forced entry method.

CHAPTER IV

Results

Preliminary Analyses

Before the main data analysis, a preliminary analysis was conducted where the abovementioned variables were examined to check for mis-entered data, missing values, and univariate as well as multivariate outliers in addition to the assumptions of normality and homogeneity of variance.

Mis-entered data. The data collected via paper-based surveys was manually entered into SPSS. By producing the frequency table, the minimum and the maximum of each variable was checked to make sure that all values fell into the appropriate range and that the data was entered correctly. In the study's dataset, the values for all the variables were entered correctly, and the check for incorrectly mis-entered data was completed.

Missing value analysis. A Missing Value Analysis (MVA) was conducted to examine the percentage of missing values. The results obtained show that the variables of participant mental illness status (referred to hereafter as PMIS), participant's relative mental illness status (referred to hereafter as RMIS), and participant's immediate entourage mental illness status (referred to hereafter as EMIS) have 7%, 5.3%, and 5.8% missing values respectively. These are above the 5% maximum recommended by Tabachnick and Fidell (2012). Therefore, we direct our attention to Little's MCAR test in order verify whether the missing data is missing completely at random. Little's MCAR test showed to be non-significant, $\chi 2(5) = 3.890$, $p = .565$, *ns*. This suggests that the variables are missing completely at random. As such, the values will be kept as part of the data as it is less likely that they will be problematic when conducting further analyses.

Outliers in the Solution: Univariate and Multivariate Outliers

A univariate outlier is a data point that consists of an extreme value on one variable (Tabachnick & Fidel, 2012). A multivariate outlier is a combination of unusual scores on at least two variables. Both types of outliers can influence the outcome of statistical analyses. Univariate outliers were checked by converting all variables into z-scores. Any z-score with a value above an absolute value of 3.29 was considered a univariate outlier. In a produced frequencies table, it was found that the variables of age, extrinsic social religiosity, and attitudes towards mental illness had the cases 64 and 95 as univariate outliers. The outliers were kept in the analysis unless they also turned out to be multivariate outliers.

Multivariate outliers were assessed through the Mahalanobis distance. The overall number of variables that was to be entered into the regression analysis was 8. With a degrees of freedom equal to 7, any case greater than $\chi^2(7) = 24.322$, $p < 0.001$ would be a multivariate outlier according to the Chi square (χ^2) table in Tabachnick and Fidel (2012). The Mahalanobis distance value of cases 64 and 95 exceeded the prescribed chi square value in the regression analysis. Since both cases were found to be both univariate and multivariate outliers, they were both removed from the dataset.

Scale Descriptives

In order to measure attitudes toward mental illness, the total scores of each of the 4 subscales of the CAMI Scale were calculated. Authoritarianism (AU) and Social Restrictiveness (SR) were found to have a negative connotation and significantly, positively correlate with one another (Girma et al., 2013). Higher scores on either subscale signified greater negative attitudes towards mental illness. Benevolence (BE) and Community Mental Health Ideology (CMHI) were found to have a positive connotation and significantly, positively correlate with one another (Girma et al., 2013). Higher scores on either subscale signified greater positive attitudes towards mental illness. As such, to

measure overall attitudes towards mental illness, the mean of the scores obtained on the subscales measuring all four components (AU, SR, BE and CMHI) was calculated. Items measuring AU and SR had to be reverse coded whereby higher scores on either of the subscales signified positive attitudes towards mental illness. Greater scores on the variable measuring overall attitudes towards mental illness signified greater positive attitudes towards mental illness. The calculated mean for the variable of overall attitudes towards mental illness (M = 37.26, SD = 4.82) was well above the midpoint of 20.75. This suggests that, on average, the participants within the obtained sample had positive attitudes towards mental illness**.**

Intrinsic religiosity, extrinsic personal religiosity (Ep), and extrinsic social religiosity (Es) were measured by calculating the sum of the scores obtained on the subscales that measure each of the three variables individually. The calculated mean of the variable of intrinsic religiosity (M = 25.75, SD = 6.80) was well below the midpoint of 32. The calculated means of the variables of Ep (M = 10.98, SD = 2.91) and Es religiosity (M = 5.06, SD = 2.57) were below the midpoint of 12 for Ep and well below the midpoint of 10 for Es. These findings suggest that, on average, the participants within the sample obtained were low on intrinsic religiosity, low on Ep and very low on Es religiosity.

Table 2
Scale Descriptives

	N	Min.	Max.	Mean	SD
Overall Attitudes Towards Mental Illness (CAMI)	170	26.50	47.25	37.26	4.82
Intrinsic Religiosity	170	8.00	40.00	25.75	6.80
Extrinsic Personal Religiosity (Ep)	170	3.00	15.00	10.98	2.91
Extrinsic Social Religiosity (Es)	170	3.00	13.00	5.06	2.57
Valid (N) listwise	170				

Reliability Analyses

Reliability analyses were conducted for the scales after the appropriate items of the subscales measuring intrinsic religiosity of the Religiosity Orientation Scale as well as the 4 subscales of AU, BE, SR and and CMHI of the CAMI Scale were reverse coded. All the scales showed to have adequate to high internal consistencies since their Cronbach's alpha values were above .7 (refer to Table 3).

Deletion of the recoded item of "Although I am religious, I don't let it affect my daily life" in the subscale measuring intrinsic religiosity leads to an increase in the Cronbach's alpha from a value of .83 to a value of .86. There is a .03 increase, which is equal to the required .03 increase that verifies as to whether an item is to be removed from a dataset. However, since the value of the alpha coefficient is already above the recommended 0.7 value and is already indicating high reliability, removal of this item would not make much of a difference.

Table 3
Reliability of the Scales and Subscales: Cronbach's alpha

Scales and Subscales	Cronbach's alpha	N of items
Religious Orientation Scale (*Intrinsic Religiosity* Subscale)	.83	8
Religious Orientation Scale (*Ep* Subscale)	.78	3
Religious Orientation Scale (*Es* Subscale)	.90	3
Community Attitudes Towards Mental Illness Scale (CAMI)	.92	40

Assumption of Normality

The assumption of normality claims that the sampling distribution of the mean is normal or that the distribution of means across samples is normal (Tabachnick & Fidel, 2012). The core element of this assumption is that the distribution of sample means across independent samples is normally distributed. Normality of the variables was tested through the examination of the z-scores of skewness. A z-skew value of ±3.29 was used as the marker for significant skewness and violation of normality. None of the scores on the

variables of intrinsic religiosity and attitudes towards mental illness showed to have a z-skewness greater than +3.29 or less than -3.29 indicating that they are not significantly different from a normal distribution. In this case, the assumption of normality was met. However, the scores on the variables of age, Ep, and Es had a z-skewness of 3.42, 64, and -4.42 respectively indicating that the scores are significantly skewed: The scores of the variables of age and Es are positively skewed, whereas those of Ep are negatively skewed. This suggests that the scores are significantly different from a normal distribution and that the assumption of normality was violated for these variables.

Rather than transforming the scores obtained for the variables under study, the regression analysis was run using the bootstrapping method. This is because the bootstrapping method is a robust method against violations of normality and thus allows us to generalize the results from our sample to the general population (Field, 2009).

Correlation Matrix

The correlations between the variables of attitudes towards mental illness (CAMI), intrinsic religiosity, Ep and Es were tested through a Spearman's rho coefficient using a two-tailed test because the assumption of normality for the variables of Es and Ep were violated (refer to Table 4).

Of the three predictors under study, intrinsic religiosity was the only one to show a significant correlation with the outcome variable. Specifically, intrinsic religiosity showed to have a significant, negative correlation with attitudes towards mental illness (r =-.18, p < .05), suggesting that those high on intrinsic religiosity are more likely to report negative attitudes towards mental illness. Moreover, intrinsic religiosity showed to have a significant, positive correlation with extrinsic personal religiosity (rs = .63, p < .01, large effect size), and extrinsic social religiosity (rs = .27, p < .01, small-medium effect size). This is in contrast to what is reported in the literature whereby intrinsic religiosity and

extrinsic social religiosity were found to be negatively related to one another due to their differing approach towards religion (Gorsuch & McPherson, 1989).

Neither of the predictor variables of Ep and Es showed to have a significant correlation with the outcome variable of overall attitudes towards mental illness.

Table 4
Correlation Matrix

	1	**2**	**3**	**4**
1 Overall Attitudes Towards Mental Illness (CAMI)	-	-.18*	-.02	-.11
2 Intrinsic Religiosity		-	.63**	.27**
3 Extrinsic Personal Religiosity (Ep)			-	.27**
4 Extrinsic Social Religiosity (Es)				-

*$p < .05$ (two-tailed).
**$p < .01$ (two-tailed).

Main Analyses: Hierarchical Multiple Regression Analysis

A regression analysis was conducted to test our proposed hypotheses. The control variables of age, gender, PMIS, RMIS, and EMIS were entered into the first block using the forced entry method, and the predictor variables of intrinsic religiosity, Ep and Es were entered into the second block using the forced entry method as well. As mentioned previously, the regression analysis was run using the bootstrapping method based on 1000 bootstrap samples with 95% confidence intervals and with bias corrected and accelerated. Bootstrapping was used because it is a robust method against violations of normality and thus allows us to generalize the results from our sample to the general population (Field, 2009).

The assumptions of multi-collinearity, influential cases, normality of residuals, homoscedasticity of the regression slope, and independence of errors were tested prior to conducting the main hierarchical multiple regression analysis.

Level of measurement. All the variables were scale variables except for gender, PMIS, RMIS and EMIS. These variables were categorical but dichotomous in nature, which is considered to be adequate for a regression analysis.

Ratio of cases to the IV. Tabachnick and Fidell (2012) recommend that for a medium sized relationship between the independent variable (IV) and dependent variable (DV) when conducting a multiple regression analysis, the sample size must be larger or equal to 50 + 8m, where m is the number of IVs. Furthermore, when testing individual predictors, the sample size must be larger than 104 + m. Our sample was composed of 170 participants after removing cases 64 and 95 which showed to be both a univariate and multivariate outliers. The predictor variables under study were a total of 8 variables. Therefore, both conditions were met, as 170 is greater than 50 + 8(8) = 114 and 104 + 8 = 112.

Multicollinearity. Multicollinearity refers to a situation in which two or more explanatory variables in a multiple regression model are highly linearly related (Tabachnick & Fidel, 2012). To check for multicollinearity, two methods were utilized: (1) checking the correlation matrix between predictors and (2) checking the Variance Inflation Factor (VIF) values. Per the correlation matrix, all correlations between the predictor variables were below .8 and all of the VIF values were below 10. Therefore, the assumption of multicollinearity was met.

Influential Cases. An influential case is any case that significantly alters the value of a regression coefficient whenever it is deleted from an analysis (Tabachnick & Fidel, 2012). To find influential cases, the Cook's distance and standardized DFBetas of all the variables were examined. All the cases had a Cook's distance and standardized DFbeta values that were below 1 indicating that there are no influential cases in the dataset.

Normality of residuals. In order to make valid inferences from a regression analysis, the residuals of the regression should follow a normal distribution (Tabachnick & Fidel, 2012). To test the assumption of normality of residuals for overall attitudes towards mental illness, its histogram was examined. Upon observation, the distribution was not

significantly different from that of the normal bell-shaped curve. Therefore, the assumption was met (Figures 1

Homoscedasticity of regression slope. Homoscedasticity describes a situation in which the error term is the same across all values of the independent variables (Tabachnick & Fidel, 2012). The assumption of homoscedasticity is central to a linear regression model and needs to be met in order to be able to carry out a regression analysis. The residuals scatterplot (ZPRED vs. ZRESID) for the regression analysis was examined to test the assumption of homoscedasticity. The assumption was met as the residuals were scattered evenly across all scores (Figure 2).

Independence of errors. The independence of errors means that the distribution of errors is random and not influenced by or correlated to the errors in prior observations (Tabachnick & Fidel, 2012). For a regression analysis to be carried out, the assumption of independence of errors needs to be met. In the current analysis, the Durbin-Watson value for overall attitudes towards mental illness was 1.92, which is close to the recommended value of 2 (Tabachnick & Fidell, 2012). This indicates that the assumption of independence of errors was met.

Hierarchical multiple regression. A hierarchical multiple regression was used to examine the contribution of the predictor variables of intrinsic religiosity, Ep and Es after controlling for the influence of the variables of age, gender, PMIS, RMIS and EMIS. Age, gender, PMIS, RMIS and EMIS were entered into the first block at Step 1 using the forced entry method and explained 17% of the variance in overall attitudes towards mental illness with age, gender, and PMIS appearing as significant predictors (refer to Tables 5 and 6). Gender came out as the strongest predictor (β = .26, p = .001) followed by PMIS (β = -.23, p = .006) and age (β = -.20, p = .008) (refer to Table 6). The age variable showed to be a negative predictor of overall attitudes towards mental illness, suggesting that youthful

individuals are more likely to have a positive outlook towards mental illness. For PMIS, a "Yes" response was coded a value of 1 and a "No" response was coded a value of 2; the findings suggest that individuals diagnosed with a mental disorder are more likely to have a positive outlook towards mental illness. For the gender variable, a "Male" response was coded a value of 1 and a "Female" response was coded a value of 2; the findings suggest that women are more likely to be understanding and accepting of mental illness compared to men.

After entering intrinsic religiosity, Ep and Es into the second block at Step 2 using the forced entry method, the total variance explained by the model as a whole was 19%, $F(8, 148) = 4.33$, $p < .001$ (refer to Table 5). These explained an additional 2% of the variance in overall attitudes towards mental illness after controlling for the demographic variables, $\Delta R^2 = .02$, F change $(3, 148) = 1.21$, $p = .31$ (refer to Table 5). This change is considered to be nonsignificant. Age, gender, and PMIS once again appeared as significant predictors within the second model with gender having a positive association, and both age and PMIS having a negative association with the outcome variable. Gender showed to have the largest association with overall attitudes towards mental illness ($\beta = .25$, p - .002) followed by PMIS ($\beta = -.22$, $p = .010$) and then age ($\beta = -.20$, $p = .009$) (refer to Table 6). The predictor variables of intrinsic religiosity, Ep and Es did not come out as significant predictors of the outcome variable.

Table 5
R, R^2, Adjusted R^2, SE of the Estimate, and Change Statistics[a]

Model	R	R^2	Adjusted R^2	SE of the Estimate	Change Statistics				
					R^2 Change	F Change	df1	df2	Sig. F Change
1	.41	.17	.14	4.49	.17	6.18	5	151	.000
2	.44	.19	.15	4.48	.02	1.21	3	148	.31

Table 6
Regression Parameters[a]

Model		B	SE	Standardized Coefficients β	Sig. (2-tailed)
1	(Contrast)	52.30	5.49		.000
	Age	-.57	.21	-.20*	.008
	Gender	2.79	.80	.26*	.001
	PMIS	-3.74	1.34	-.23*	.006
	RMIS	.10	1.18	.007	.93
	EMIS	-.88	.73	-.09	.23
2	(Contrast)	52.37	5.49		.000
	Age	-.56	.21	-.20*	.009
	Gender	2.67	.83	.25*	.002
	PMIS	-3.58	1.38	-.22*	.010
	RMIS	.35	1.19	.02	.77
	EMIS	-.74	.74	-.08	.32
	Intrinsic Religiosity	-.11	.07	-.16	.09
	Extrinsic Personal Religiosity	.23	.17	.13	.18
	Extrinsic Social Religiosity	-.09	.15	-.05	.53

*$p < .05$

CHAPTER V

Discussion

The current study examined the relationship between intrinsic, extrinsic religiosity and gender attitudes toward mental illness in a sample of Lebanese male and female university level students, aged between 18 and 25 years. The hypotheses were:

- H1: Intrinsic religiosity of respondents as measured by the I-E/R Scale will predict positive attitudes toward mental illness as measured by the CAMI Scale (low stigma).
- H2: Extrinsic-personal religiosity of respondents as measured by the I-E/R Scale will predict positive attitudes toward mental illness as measured by the CAMI Scale (low stigma).
- H3: Extrinsic-social religiosity of respondents as measured by the I-E/R Scale will predict negative attitudes toward mental illness as measured by the CAMI Scale (high stigma).
- H4: Gender will come out as a significant predictor of overall attitudes towards mental illness whereby females will be more likely to have positive attitudes towards mental illness as measured by the CAMI scale (low stigma).

As per the findings of the present study, the predictor variables of religiosity under study did not explain a significant proportion of the variance in the outcome variable among the sample. Inconsistent with our hypotheses as well as the literature, neither intrinsic religiosity nor any of the two dimensions of extrinsic religiosity (personal and social) came out as significant predictors. They did not explain a significant proportion of

the variance after entering them into the second block within the regression analysis. However, the demographic variables that were entered into the first block within the analysis did explain a significant proportion of the variance in the outcome variable with age, gender, and participant's mental illness status (PMIS) coming out as significant predictors even after entering the predictor variables of religiosity under study into the model. Specifically, gender came out as the strongest predictor.

Moreover, per the findings, the sample under study showed to have an overall positive attitude towards mental illness, a finding that contradicts previous studies that have found stigma towards mental illness to be highly prevalent among undergraduate university students in specific (Rayan & Jaradat, 2016; Rayan & Fawaz, 2018; Zolezzi et al., 2017; Vally et al., 2018).This suggests a positive shift in attitudes towards people with mental illness among university students and thus greater awareness and normalization of mental illness in Lebanon. The only recent study on mental illness stigma using the CAMI Scale (Abi Doumit et al.,2019), confirms that stigma against mental illness was less manifest among educated Lebanese, females and those aged between 18-25 years of age.

Furthermore, and surprisingly for a country where religion is of great significance and relevance at the personal, social, and political levels, the sample under study was low on both dimensions of religiosity (intrinsic and extrinsic). Unfortunately there are no previous studies in Lebanon on the variable of religiosity so we could compare the present findings to past findings and detect any developmental pattern. Low scores on religiosity could be explained with reference to the demographics of the sample obtained: Our sample consisted of individuals whose ages ranged from 18 to 25 years and who were attending university. They are therefore considered to be a youthful and educated sample, a sample that has been consistently found in the literature to be low on religiosity (Argue, Johnson, & White, 1999; Meisenberg, Rindermann, Patel, & Woodley, 2012).

With regards to the variables of religiosity, both dimensions of extrinsic religiosity (personal and social) did not come out as significant predictors of overall attitudes toward mental illness. An example for extrinsic-personal religiosity would be praying for protection and relief, while an example for extrinsic-social religiosity would be going to church or the mosque to meet people and make friends (Maltby, 1999; Woyciechowski, 2007*).* Extrinsic religiosity has been referred to by Allport (1966) as "communal" religiosity in reference to a religious commitment that provides an important communal service independent from its religious functional specificity, suggesting that in that case, people turn to their religious group for the satisfaction of their communal identification and their need to belong. Such a person would be inclined to express statements such as: "The purpose of prayer is to secure a happy and peaceful life" or "The Church is most important as a place to formulate good social relationships." In this context, Allport (1966) mentions that this type of "communal" affiliation provides "status for some, a gossip center for others, a meeting place for the lonely, entertainment for the disengaged, and even a good way to sell insurance"(Allport, 1966, 452).

This type of religiosity is contrasted with what Allport (1966) calls "associational" religiosity, a term that he later modified to become "intrinsic" religiosity; the person with "associational" religiosity seeks spiritual association to his/her religious group's fellowship. Such a person would be inclined to express statements such as: "I try to carry my religion over into all my other dealings in life" or "Quite often I have been keenly aware of the presence of God or the Divine Being"(Allport, 1966, 456).

In our study, intrinsic religiosity showed to have a significant negative association with overall attitudes towards mental illness at the bivariate level, a finding that contradicts what Allport (1966) and Allport and Ross (1967) have suggested in their study of the relationship between religiosity and prejudice, namely that people whose religious

motivation is of the extrinsic order (those who *use* their religion) are found to be more prejudiced than people whose religious motivation is of the intrinsic order (those who *live* their religion). Thus, as per the literature, a person with an extrinsic religious orientation is likely to favor prejudices against minorities, and adopt an attitude of intolerance against them while the person with an intrinsic religious orientation has an overarching religious commitment which internalizes values such as humility, compassion and tolerance of the other, and is thus likely to be more tolerant and less prejudiced toward minorities.

Our study showed that without taking into account the influence of the remaining variables within the study, an increase in intrinsic religiosity as a religious orientation is associated with an increase in negative attitudes towards mental illness and vice versa. One may want to interpret such a finding by questioning the validity and reliability of the concept of intrinsic religiosity itself and the tool used to assess it. This would, however, lead us to a new and totally different direction than the original direction of the present research. Nevertheless, it is important to look back at some of the research that has gone into that direction. Isaak et al. (2017) contend that although Allport's scales of religiosity have been often considered the gold standard for measuring religious motivation and commitment, there is much debate over what they are truly measuring. Based on Allport's (1963) description of "mature" (intrinsic) religiosity as "deep and pervasive, lockstitched into the whole fabric of being" as opposed to the "fragmentary, superficial and even trivial" nature of immature (extrinsic) religiosity (Allport, 1963, 193), Batson & Raynor Prince (1983) suggest that the operational concept of intrinsic religiosity that Allport introduced as measured by Allport & Ross' Religious Orientation Scale (ROS) has limited the original concept of "mature" religiosity to a single-minded commitment and reliance on religion as a central, master motive in life. Batson & Raynor Prince (1983) argue that the true meaning of mature intrinsic religious commitment, as promoted by Allport's earlier work, included a

more self-critical, open-minded, integrative approach to life than what the ROS intrinsic religiosity depicts. Such components of mature, intrinsic religiosity are omitted from the ROS intrinsic religiosity dimension. To support their argument, Batson & Raynor Prince (1983) present several studies that showed no positive relationship between measures of complexity, open-mindedness or flexibility and ROS intrinsic religiosity, no relationship between ROS intrinsic religiosity and either low dogmatism or low authoritarianism, a significant negative relationship between ROS intrinsic religiosity and a questionnaire measure of independence of judgment, and a significant positive correlation between ROS intrinsic religiosity and rigidity. To further corroborate this view, Batson& Schoenrade (1991) proposes a third concept to add to the available two dimensions of intrinsic and extrinsic religiosity. He calls it the "Quest" dimension, which involves honestly facing existential questions in their complexity. Batson& Schoenrade (1991) presents a series of studies that have shown a positive correlation between Quest scores and principled moral reasoning, negative correlation between Quest scores and racial and sexual prejudice and discrimination, and positive correlation between Quest scores and victim-helping behavior. All those correlations, according to Batson& Schoenrade (1991) have been replicated across samples, and in every case the correlation appeared to be stronger than are the correlations for either the ROS extrinsic or the intrinsic scales.

Based on the above discussion, we may be tempted to question Allport's original thesis that intrinsically religious people who show humility, compassion, and love of neighbor (Allport 1966, Allport & Ross, 1967) will be less prejudiced than extrinsically religious people with regards to marginalized "outgroups" (in our case people with mental illness). This may explain why in our sample, individuals who were high on intrinsic religiosity showed more stigma toward mental illness. Indeed, Jackson & Hunsberger (1999) mention that although intrinsic orientation has generally been found to be unrelated to ethnic

prejudice, some studies have shown it to be positively related to prejudice against homosexuals as well as members of some religious outgroups. Wondering whether Allport's proposal that intrinsic orientation is associated with tolerance may “have been overstated” (Jackson & Hunsberger, 1999, 510), the authors suggest that the more open-minded "questing" approach to religion as proposed by Batson may be associated with more consistent tolerance than is intrinsic orientation. According to Jackson & Hunsberger (1999), even the most well-meaning “neighbor-loving” Allport’s intrinsically religious people hold prejudices because, first, prejudice functions at an unconscious level, second, it can be readily rationalized as non-prejudice, and third, social psychology teaches us that antipathy can coexist with egalitarian values. According to Social Identity Theory, individuals have a tendency to respond to people based on their status as outgroup or ingroup members; because identification with one's religious group is an important part of intrinsic religious motivation, then it is likely that intrinsically religious people (whose attachment to religion is genuine, inherent and nuclear, as per Allport’s description) will feel less tolerant of “others”(any outgroup, religious, ethnic, racial or for that matter, the mentally different) and manifest more stigma against them. Since those with intrinsic religiosity view individuals with mental illness as different, i.e outergroup, they are more likely to respond to them with prejudice (Jackson & Hunsberger, 1999).

Our interpretation of the results of the present study is further complicated by the additional finding that intrinsic religiosity showed to have a significant, positive relationship with extrinsic social religiosity. This finding is contrary to the Western literature whereby intrinsic religiosity and extrinsic social religiosity were found to be negatively related to one another due to their differing approach towards religion (Gorsuch & McPherson, 1989). Moreover, although positively related to intrinsic religiosity,

extrinsic-social religiosity did not predict higher stigma toward mental illness, as we had hypothesized. This may be interpreted in light of the confounding effect of social desirability: People who are high on extrinsic-social religiosity may be more concerned about appearing in a favorable light than people who are intrinsically religious, and thus they would express more positive attitudes towards marginalized others because it is the socially acceptable thing to do. Further, they are less concerned about a genuine nuclear attachment to their religious group than the intrinsically religious people; being utilitarian in their religious commitment, they tend to use their religiosity for social status and other socially-oriented benefits, and if that status requires to show tolerance, they would not hesitate to express it.

With regards to intrinsic religiosity and extrinsic personal religiosity, our study shows that both variables were found to have a significant positive relationship at the bivariate level per the study's results. Per the literature, both intrinsic and extrinsic personal religiosity are religious orientations that integrate religion and the religious doctrines within one's set of beliefs (Genia, 1993; Maltby, 1999). Both orientations, if adopted, perceive religious practices as a personal activity that is meaningful to the individual. However, through intrinsic religiosity, one views the deeper meaning of religion and integrates it as part of his or her identity thus living the religion (Maltby, 1999). Through extrinsic personal religiosity, one perceives the deeper meaning of religion but resorts to the practice and integration of the religious doctrines as a means of safety, protection, and approval from God (Maltby, 1999). Religiosity is perceived similarly through both orientations, which explains the positive correlation between the two orientations per the findings of the present study; however, the goal of integrating religion within one's daily practices and identity, practice of religion, and religiosity as a whole differs.

The positive relation between intrinsic and extrinsic-personal religiosity has been further documented in the Commitment-Reflectivity Circumplex (CRC) model of religiosity that denotes religious orientation as consisting of 10 dimensions (Isaak et al., 2017; Krauss & Hood, 2013). Per this model, both intrinsic and extrinsic personal religiosity showed to have strong, positive correlations with the newly defined dimensions of Personal, Gain, and Centrality with Personal denoting "an approach towards religion in order to gain comfort, protection, forgiveness, and help in general," Gain "[consisting] of the degree to which religion is approached as a method for gaining wealth, health, success, and other personal desires," and Centrality denoting "the degree to which religion is important and central to an individual's life."

As a conclusion to the above discussion, the sample under study showed to have a positive attitude towards mental illness, a finding that is contradictory to previous studies. This suggests a positive shift in the mindset and attitudes towards people with mental illness in Lebanon. Also, results showed low intrinsic and extrinsic religiosity. These low scores could be explained by the demographics of our sample aged 18-25 university students that are found to be low on religiosity in previous literature. Both dimensions of extrinsic religiosity did not come out as significant predictors of overall attitudes toward mental illness. However, intrinsic religiosity seemed to predict negative attitudes toward mental illness. Studies questioned Allport's interpretation of the "mature" intrinsic religiosity that is said to hold no prejudice. Batson's "Quest" religiosity was introduced as a third dimension to religiosity that may better reflect what the concept of "intrinsic" religiosity meant for Allport and hence its relationship to prejudice. "Quest" religiosity incorporates a more open-minded and tolerant approach than the ROS version of Allport's intrinsic religiosity. Based on the above, Allport's hypothesized tolerance of intrinsic religiosity toward minority groups is not fully accepted. Allport's hazy conceptualization of

intrinsic religiosity is further documented by Neyrinck, et el. (2010) who used the Self-Determination Theory to frame the concept of religiosity, and suggest that intrinsic religiosity is similar in many ways to the personal dimension of extrinsic religiosity since they both stem from a personally authenticated and endorsed position (as opposed to being imposed onto the self by external factors, as in extrinsic-social religiosity), yet they differ in terms of motivation.

Based on the above, the relationship between religiosity and attitudes towards mental illness has to be broken down into two partial interpretations: First, we may say that the fact that our sample scored low on all three religiosity dimensions (I, Ep and Es) explains why Ep and Es did not significantly predict attitudes towards mental illness; thus, religiosity does not seem to be a very important lens through which Lebanese students perceive, process and evaluate causes, such as the situation of people with mental illness. Their overall favorable attitudes toward mental illness is an indicator that they do not perceive people with mental illness as an out-group. Second, the intriguing finding that, contrary to our expectations, high intrinsic religiosity led to higher stigma against mental illness, in addition to the finding that intrinsic religiosity and extrinsic-personal religiosity were positively correlated, and the finding that extrinsic-social religiosity led to lower stigma, may indicate that we are facing quite a complex profile of religiosity in relation to attitudes toward mental illness; such complexity may be attributed to possible conceptualization ambiguities in the concept of religiosity itself, as well as to a somewhat strong social desirability bias.

In accordance with our fourth hypothesis, gender showed to have a positive association with overall attitudes toward mental illness. Both age and participant's mental illness status also showed to have negative associations with overall attitudes towards mental illness at both the bivariate and multivariate levels. These associations have been

highly evidenced in the literature (Ewalds-Kvist, Högberg, & Lützén, 2013): Universally, women, assumed to be more nurturing and empathic than men on a wide range of issues (Mestre, Samper, Frías, & Tur, 2009), are more prone to exhibiting positive attitudes towards individuals with mental illnesses when compared to their male peers (Ewalds-Kvist, Högberg, & Lützén, 2013). Different studies have shown that women tend to show less stigmatizing, more humanitarian attitudes towards mental illness, and were more likely to want to learn about mental health and its importance (Corrigan&Watson, 2007; Pascussi et al,, 2017; Tran et. al,2017). This finding has been explained through the contrasting characteristics that women possess in comparison to men and that have been highly linked to positive attitudes towards mental illnesses. One of these characteristics is empathy. Empathy is defined as one's ability to comprehend as well as share others' feelings and has been shown to play a significant role in predicting greater positive attitudes towards mental illness (Kvist et. al, 2012).

By possessing greater levels of empathy and expressing an empathic attitude, one is able to understand the experiences and feelings of those suffering from mental illnesses. As such, these individuals will report having a positive attitude towards mental illnesses in general as a result of possessing the ability to feel with those who are experiencing the distress and turmoil of their disorders. Several studies have shown that women are more empathetic than men and less likely to endorse stigma (Moore&Lacoboni,2018; Nanda,2014; Rueckert et. al,2011; Toussaint&Webb,2005).

Aside from gender, individuals who have already been diagnosed with a mental disorder and who have experienced the negative impact that mental instability and illness may have on an individual will be empathic towards other individuals suffering from mental illnesses (Knolhoff, 2018). As such, possessing empathy as a trait may explain the

study's finding of participant's mental illness status (PMIS) as a significant predictor of overall attitudes towards mental illness. The negative relation between the two variables suggests, as mentioned previously, that those diagnosed with a mental disorder are more likely to have a positive outlook towards mental illnesses, and this, as per the literature, could most likely be due to their empathic attitude towards those diagnosed with mental disorders. That being said, empathy may thus play a mediating role in explaining the relation of the variables of gender and participant's mental illness status with overall attitudes towards mental illness (Ewalds-Kvist, Högberg, & Lützén, 2013).

With regards to the relation between age and overall attitudes towards mental illness, it has been theorized that older individuals are more likely to exhibit negative attitudes towards individuals with mental illnesses (Ewalds-Kvist, Högberg, & Lützén, 2013). The significance should be dealt with caution since 25 years of age is not considered formally old yet the statistical significance yielded by the age in this study showed that 18 years of age showed different results than 25 years of age. This is due to the greater likelihood of older individuals possessing more traditional and conformist values and beliefs. Older individuals are believed to be rejecting of any behavior that does not abide by societal norms and that they deem as odd (Ewalds-Kvist, Högberg, & Lützén, 2013; Taylor & Dear, 1981). Lebanon is a country where mental illness continues to be stigmatized to a greater extent when compared to Western cultures, despite the progresses that have been made, in recent years, towards raising more awareness about mental illness and activating a national mental health policy that would cater for the needs of people with mental illnesses. However, Lebanon is characterized with a collectivistic cultural fabric where conforming to group norms and beliefs is highly valued, if not required. Traditional societal standards of normality are still very strongly felt across all categories of the Lebanese population, but more so among the older, more conservative generations. In that sense, viewing mental

illness as “abnormal” is the norm, and such as norm is difficult to alter, in spite of all the efforts mentioned above. Younger generations are believed to be less susceptible to be influenced by such normative, conventional ways of thinking and more accepting of the inclusion of all marginalized people in society, among whom people with mental illness.

Limitations of the Study

The results of the present study need to be considered in light of a number of limitations. The first limitation is concerned with the nature of the sample. The sample recruited was a sample of convenience and was thus restricted to university students. This thus limits the generalizability of the results beyond the scope of a university setting and thus a student population. As such, the results may not provide a valid representation of the Lebanese population at large and may not provide an accurate indication of attitudes of Lebanese citizens towards mental illness.

A second limitation of the study is the use of self-report measures. While such measures are time and cost effective, the results are subject to the influences of demand characteristics and response biases, especially since the participants filled out the questionnaires while in the presence of the researcher. The participants’ responses may have been influenced due to their presumption of the researcher’s hypotheses. The researcher’s presence during the data collection process may have affected the participants’ responses due to the tendency of answering the items based on how they predict the researcher would have expected them to respond. Their answers may therefore not align with their true attitudes, beliefs, thoughts, and/or behaviors.

A third limitation is the use of the Religious Orientation Scale (ROS). Initially, the scale measuring our targeted variables of intrinsic and extrinsic religiosity was validated among a Christian sample and was made to target individuals whose religious affiliation was that of Christianity. Christian and Muslim practices differ significantly. While the scale

was adapted and modified to address both Christian and Muslim individuals, the items may not provide an accurate depiction of the Muslim practices. As such, an accurate measurement of the sample that identified their religious orientation as Muslim may not have been captured with precision via the scale despite the modifications made.

Finally, the cross-sectional design that the present study employed limits the conclusions that can be drawn in terms of causality. For example, the results of the study suggest that the presence or absence of a mental illness can predict one's positive attitudes towards mental illness and vice versa rather than conclude that experiencing or being diagnosed with a mental illness causes the emergence of one's positive attitudes towards mental illness.

Future Research

Since sample size and diversity were a big limitation in this study, future research can focus on recruiting more participants in order to generalize findings and get a more accurate view of the Lebanese population. Also, the questionnaires used can be translated into Arabic to reach a wider and more diverse population. In addition, complementing the questionnaires with opportunities for participants of both genders to respond to open-ended instruments, such as vignettes depicting different dilemmas about mental illness in particular social or personal situations, would be very useful to capture attitudes and feelings about mental illness in a more contextual way.

It would be valuable for future research to investigate other factors, such as empathy, that may explain the significance found between males and females in attitudes towards mental illness. Since age showed to be a significant predictor, it can be looked into further and in more detail.

Future research in Lebanon should also inquire into the perceptions of mental health experts (psychiatrists, psychologists, psychiatric nurses, etc.) of how patients' religiosity impacts the course of their illness and the course of therapy, and whether they would deem a religious/spiritual dimension as acceptable in their understanding of their patients, and as an integral part of any intervention plan for the benefit of the patient.

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Appendix A

Information and Consent Forms

Dear Ms./Mr.

I am Valen Valentine a student at Haigazian University from the Faculty of Social and Behavioral Sciences. I am currently carrying out a research study titled “Intrinsic, Extrinsic Religiosity and Gender as Predictors of Attitudes toward Mental Illness among Lebanese University Students”. This research is advised by Ms. Rita Merhej from the Psychology Department. You are being asked to take part in this study since our study focuses on Lebanese university students aged 18-25 years old, thus you can contribute to my research study.

Kindly read the below information to decide whether you would like to participate in this research study.

Purpose of the Research Project

The current research aims to address the relationship between religiosity, gender and perceptions of mental illness in Lebanon among university students. This study will help researchers gain a better understanding of the relationship between religiosity and mental illness stigma, and may bring insights to the mental health profession that would allow to more effectively reach out to those who need the service.

This study will contribute towards the partial fulfillment of my academic study requirements at Haigazian University.

What will I be asked to do?

- If you choose to participate in this research study, you will be asked to fill in a questionnaire. Your participation will involve completing a survey that entails statements that you will have to rate based on agreement, a demographic form and for approximately 30 minutes.

  Participation in this project is voluntary. You are free to withdraw anytime without having to give any reason for your withdrawal.

What are my rights?

- Participation in this study is voluntary, anonymous and confidential. Your name or any other identifying information will not be asked.
- Data you provide along with data from all participants in the present research will be stored in aggregate in a locked cabinet and on the personal computer of Valen Valentine. The data will be analysed and reported in aggregate. Only the principle investigators of this study will have access to the compiled data which will be stored for a period of 10 years post data. During this time, you have the right to inspect the data.
- You have the right to withdraw your consent or discontinue participation at any time for any reason. Your decision to refuse participation or withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with Haigazian University.
- This research study has been reviewed and has received clearance from the Haigazian University Social and Behavioural Sciences Ethics Committee. If you have any further concerns about your rights as a research participant, please, do not hesitate to contact the committee at SBS.Ethics@haigazian.edu.lb. You can also contact my instructor at rita.merhej@haigazian.edu.lb.

What are the risks and benefits of participation?

- Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life. If you feel uneasy, you can terminate the study any time you want to.
- You will receive no direct benefits from participating in this research; however, your participation does help researchers better understand about the perceptions and attitudes of mental illness among university students.

Contact information

If you have any questions or concerns about the research you may contact:

Valen Valentine

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Faculty of Social and Behavioral Sciences

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Rita Merhej

Advisor

Lecturer in Psychology and Special Education

Faculty of Social and Behavioral Sciences

Haigazian University

Participant consent

Intrinsic, Extrinsic Religiosity and Gender as Predictors of Attitudes toward Mental Illness among Lebanese University Students

Please read the following statements and place a check mark in the boxes adjacent to them.

☐ I have volunteered to participate in this research project conducted for purposes of study. My participation is voluntary and does not involve payment of any kind.

☐ I agree to participate in this research project conducted for purposes of study. My decision is voluntary and does not involve payment of any kind.

☐ I know that I can choose to withdraw from participation any time without any penalties or consequences whatsoever. I also hold the right to decline to respond to any question(s) that I may feel uncomfortable with.

☐ My participation involves answering a questionnaire for approximately 20 minutes.

☐ I have been assured that the researcher will maintain my identity confidential.

☐ I have been assured that the information from this interview will be used for the purpose of educational use.

☐ I have received the assurance that this research study has been duly reviewed and approved by the Haigazian University Social and Behavioural Sciences Ethics Committee.

☐ I agree that the data gathered be kept in a secure location under the care of the study investigators for a period of 10 years.

☐ I have been assured that I can access my data (if identified) at any time.

☐ I have read, listened and fully understand the explanation given to me. All my questions have been satisfactorily answered.

☐ I, therefore, choose to voluntarily participate in this research study.

☐ I have received a copy of this consent form co-signed by the researcher.

Appendix B

Demographic Questionnaire

Please indicate in the space below your:

Nationality: ……..

Age: ……

Gender: ……..

Please feel free or not to answer the following 3 questions:

Do you suffer from any mental illnesses? □Yes □No

Does anyone in your immediate family suffer from mental illness? □Yes □No

Does anyone in your immediate entourage (circle of friends, workplace, university…)

suffer from mental illness? Yes ☐ No ☐

Appendix C

Community Attitudes Towards the Mentally Ill

The following statements express various opinions about mental illness and the mentally ill. The mentally ill refers to people needing treatment for mental disorders but who are capable of independent living outside a hospital. Please circle the response that most accurately describes your reaction to each statement. Don't be concerned if some statements seem similar to ones you have previously answered. Please be sure to answer all statements by choosing a number from 1 to 5.

1= Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5= Strongly Agree

1. As soon as a person shows signs of mental disturbance, he should be hospitalized 1 2 3 4 5
2. More tax money should be spent on the care and treatment of the mentally ill 1 2 3 4 5
3. The mentally ill should be isolated from the rest of the community 1 2 3 4 5
4. The best therapy for many mental patients is to be part of a normal community 1 2 3 4 5
5. Mental illness is an illness like any other 1 2 3 4 5
6. The mentally ill are a burden on society 1 2 3 4 5

7. The mentally ill are far less of a danger than most people suppose 1 2 3 4 5
8. Locating mental health facilities in a residential area downgrades the neighbourhood 1 2 3 4 5
9. There is something about the mentally ill that makes it easy to tell them from normal people 1 2 3 4 5
10. The mentally ill have for too long been the subject of ridicule 1 2 3 4 5
11. A woman would be foolish to marry a man who has suffered from mental illness even though he seems fully recovered 1 2 3 4 5
12. As far as possible mental health services should be provided through community based facilities 1 2 3 4 5
13. Less emphasis should be placed on protecting the public from the mentally ill 1 2 3 4 5
14. Increased spending on mental health services is a waste of tax dollars 1 2 3 4 5
15. No one has the right to exclude the mentally ill from their neighbourhood 1 2 3 4 5
16. Having mental patients living within residential neighbourhoods might be food therapy, but the risks to residents are too great 1 2 3 4 5

17. Mental patients need the same kind of control and discipline as a young child 1 2 3 4 5
18. We need to adopt a far more tolerant attitude toward the mentally ill in our society 1 2 3 4 5
19. I would not want to live next door to someone who has been mentally ill 1 2 3 4 5
20. Residents should accept the location of mental health facilities in their neighbourhood to serve the needs of the local community 1 2 3 4 5
21. The mentally ill should not be treated as outcast of society 1 2 3 4 5
22. There are sufficient existing services for the mentally ill 1 2 3 4 5
23. Mental patients should be encouraged to assume the responsibilities of normal life 1 2 3 4 5
24. Local residents have food reason to resist the location of mental health services in their neighbourhood 1 2 3 4 5
25. The best way to handle the mentally ill is to keep them behind locked doors 1 2 3 4 5
26. Our mental hospitals seem more like prison than like places where the mentally ill can be care for 1 2 3 4 5

27. Anyone with a history of mental problems should be excluded from taking public office 1 2 3 4 5
28. Locating mental health services in residential neighbourhood does not endanger local residents 1 2 3 4 5
29. Mental hospitals are an outdated means of treating the mentally ill 1 2 3 4 5
30. The mentally ill do not deserve our sympathy 1 2 3 4 5
31. The mentally ill should not be denied their individual rights 1 2 3 4 5
32. Mental health facilities should be kept out of residential neighbourhoods 1 2 3 4 5
33. One of the main causes of mental illness is a lack of self-discipline and will power 1 2 3 4 5
34. We have the responsibility to provide the best possible care for the mentally ill 1 2 3 4 5
35. Then mentally ill should not be given any responsibility 1 2 3 4 5
36. Residents have nothing to fear from people coming into their neighbourhood to obtain mental health services 1 2 3 4 5

37. Virtually anyone can become mentally ill 1 2 3 4 5
38. It is best to avoid anyone who has mental problems 1 2 3 4 5
39. Most women who were once patients in a mental hospital can be trusted as baby sitters 1 2 3 4 5
40. It is frightening to think of people with mental problems living in residential neighbourhoods 1 2 3 4 5

Appendix D

Revised Intrinsic/ Extrinsic Orientation Scale

Read the following statements and rate them according to the scale below by circling the number that best matches your opinion.

1= Strongly Disagree 2=Disagree 3=Undecided 4=Agree 5= Strongly Agree

1. I enjoy reading about my religion	1 2 3 4 5
2. It is important to me to spend time in private thought and prayer.	1 2 3 4 5
3. I have often had a strong sense of God's presence.	1 2 3 4 5
4. I pray mainly to gain relief and protection.	1 2 3 4 5
5. I try hard to live all my life according to my religious beliefs.	1 2 3 4 5
6. Prayer is for peace and happiness.	1 2 3 4 5
7. I go to church/mosque because it helps me make friends.	1 2 3 4 5
8. I go to church/mosque mostly to spend time with my friends.	1 2 3 4 5
9. My whole approach to life is based on my religion.	1 2 3 4 5
10. I go to church/mosque mainly because I enjoy seeing people I know there.	1 2 3 4 5
11. It doesn't matter what I believe so long as I am good.	1 2 3 4 5
12. What religion offers me most is comfort in times of trouble and sorrow.	1 2 3 4 5
13. Although I am religious, I don't let it affect my daily life	1 2 3 4 5
14. Although I believe in my religion, many other things are more important in life.	1 2 3 4 5

Appendix E Figures

Figure 1

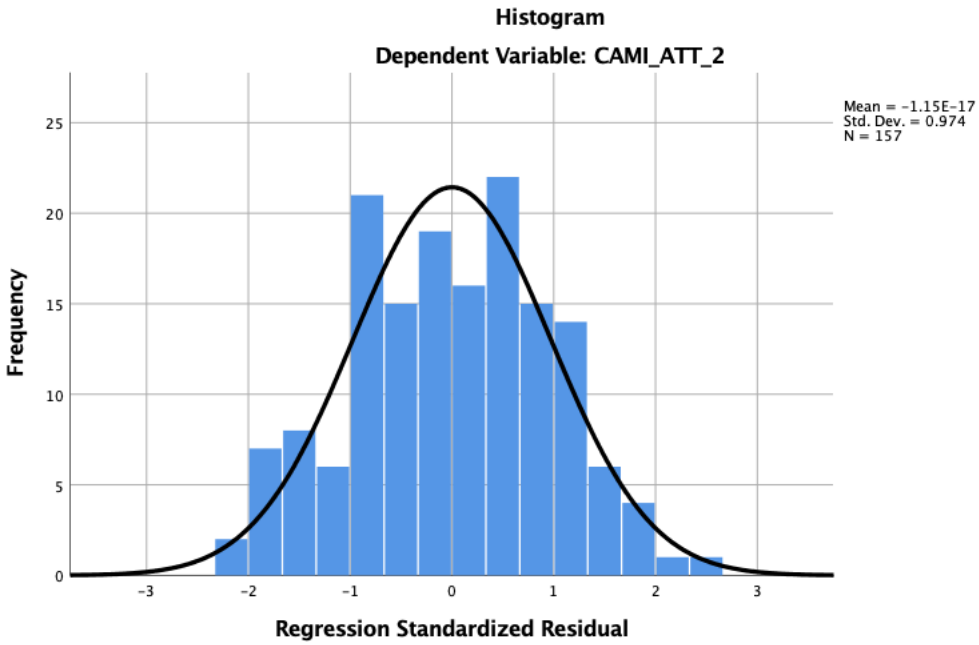

Figure 2