

HAIGAZIAN UNIVERSITY

The Relationships between Social Interest, Life Satisfaction and Depression

In the Lebanese Population

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DEDICATION

I would like to dedicate this work to all the depressed people,

But depressed as they are,

They wouldn't be able to appreciate my dedication, really.

So I will dedicate it to all the depressed people...

When they were still happy!

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Abstract

The relationship between depression, life satisfaction and social interest was assessed among the Lebanese population. A total of 262 individuals (convenient sample) were administered the Beck Depression Inventory-II (BDI-II), the Satisfaction with Life Scale (SWLS), and The Social Interest Scale (SIS). Depression was significantly negatively correlated with Life Satisfaction in the total population, while Social interest and Life Satisfaction were significantly positively correlated with each other. Moreover, both variables, Social Interest and Life Satisfaction, were negatively correlated with depression, but only in the female population, hence, nonconforming to all prior research. Implications of the findings, as well as suggestions for future research were provided.

The Relationship between Social Interest, Life Satisfaction and Depression In the Lebanese Population

Depression is reaching catastrophic proportions in the modern world (Blazer, 2009), despite countless numbers of treatments available to people suffering from this clinical condition (Little, 2009; Morrison, 2013; Lewinsohn & Shaw, 2010, Marcus & Olfson, 2010; Meyer & Weaver, 2007). Depression in the United States, has the highest ratio among all mental disorders, making up 75% of admissions into psychiatry departments, and reaching to 30% of the American population per annum (González, Tarraf, Whitfield, & Vega, 2010). The prevalence rate of depression in the United States has reached an all-time high with 37.4% of the population being diagnosed with major depression or other depressive disorders (Luppa, Sikorski, Luck, Ehreke, Konnopka, Wiese, Weyerer, Konig, & Riedel-Heller, 2012).

Background of the Study

Even though it is noticeable that the medical, the psychological as well as the general population has become better educated in recognizing depression, a factor that could be contributing to the rising statistical numbers across the generations, one must not ignore the influence of the ever-increasing levels of stress that go hand in hand with modern life (Weiten, Dunn, & Hammer, 2011). Extensive research is conducted on depression, exploring its causes and treatment methods as well as various factors that correlate with it, such as, Life Satisfaction, and Social Interest (Crandall, 1980; Lantz, 1981; Adler, 1964; Highlander, 1984; Miranda & Umhoefer, 1998; Ionedes, 2008; Saunders & Roy, 1999).

Life Satisfaction, as defined by Veenhoven, Scherpenzeel and Bunting (1996) is the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person is satisfied with the life he/she leads, while Social Interest is the degree to which a person is interested in actively contributing to the welfare of his/her society (Adler, 1927). This study focuses on these two variables and how each of them relates to levels of depression in the Lebanese population.

Adler (1956) defined social interest as the drive to cooperate and work with other people for the common good. According to him, social interest is a major factor that affects the person's mental health in such a way that the higher the person's social interest, the higher his/her level of life satisfaction. In 1991, Crandall developed the Social Interest Scale, which was later used by many researchers to confirm Adler's theories about the role of social interest on the mental health of both clinical and non-clinical subjects (Schwartz, Meisenhelder, Yunsheng & Reed, 2003; Craighead, Curry, & Ilardi, 1995; Gilman, 2001; Miranda & Umhoefer, 1998). Contrary to the concept of altruism, which involves selflessly doing something for the good of someone else, and often associated with the notion of self-sacrifice for the good of others (Fehr & Fischbacher, 2003), an act committed under Social Interest does not require selflessness or any sort of sacrifice. Moreover, behaviors classified under Social Interest are also considered self-serving, as Social Interest is a socially desirable and reinforced norm, in some societies more so than others (Singelis, Trafimow, Realo, Triandis, & Street, 1998).

Depression is defined as a state of low mood and aversion to activity that can have a negative effect on a person's thoughts, behavior, feelings, world view and

physical well-being (Beck & Alford, 2009), while Life Satisfaction, one of the factors used measuring a person's subjective well-being, is the degree to which a person is satisfied with his or her life.

Some studies have established a clear link between depression, life satisfaction, and social interest (Hammond, 2012; Crandall, 1980; Schwartz, Meisenhelder, Yunsheng & Reed, 2003; Craighead, Curry, & Ilardi, 1995; Gilman, 2001, Adler, 1981; Highlander, 1984; Miranda & Umhoefer, 1998; Lantz, 1981), demonstrating a significant correlation between all three of the aforementioned variables. For example, Saunders & Roy (1999) observed a significant negative correlation between Social Interest and Depression with $r = -0.405$ ($p < .001$), a significant negative correlation between Depression and Life Satisfaction with $r = -0.506$ ($p < .001$), and a significant positive correlation between Life Satisfaction and Social Interest with $r = 0.462$ ($p < .001$). These studies, however, did not find any significant differences in their results when demographic factors such as sex, age, or level of education were put under focus.

Moreover, when studying the relationship between mental health and social interest, the results showed that people with higher levels of social interest have a better level of mental health than those with lower levels of social interest (Schwartz, Meisenhelder, Yunsheng & Reed, 2003), thus providing further validation regarding the relationship between social interest and depression. Some studies went a bit farther to look into factors that could affect the relationship between social interest and depression scores. A study by Gilman (2001), reported significant differences in scores between some populations on the social interest scale, depending on race and ethnic background. Specifically, scores of participants who come from a collectivistic

society showed higher social interest scores than those from a predominantly individualistic society. However, the differences in scores of the ethnic minorities did not change the direction of the study's overall results as the samples of these particular groups were quite small.

What then would be the results of such a study where the population being researched, in this case, the Lebanese population, is predominantly collectivist? According to Harati (2012), factors such as mental health, physical health, the educational level as well as the socioeconomic level do not affect the individual's expression of social interest in collectivist societies as social interest is considered a desirable and socially rewarded norm.

In light of the above-mentioned explanation regarding the importance of Social Interest in collectivist societies, the author predicts that, unlike in previous studies conducted in individualistic societies, the Lebanese's level of social interest will not correlate with levels of life satisfaction nor will it correlate with levels of depression. However, the author, as he has no justification to assert otherwise, predicts that, like previous studies, life satisfaction and depression among Lebanese adults will correlate negatively with each other.

Statement of the Problem

- Based on the findings of Nes, Czajkowski, Røysamb, Ørstavik, Tambs, & Reichborn-Kjennerud (2012), who found a negative correlation between Depression and Life Satisfaction, the following hypothesis was generated:

The scores on the depression scale will negatively correlate with the scores of the life satisfaction scale

- Based on the findings of Hui (1998) who demonstrated how levels of social interest can be used as an index in measuring collectivism-individualism, and Gilman (2001), who found discrepancies in the level Social Interest scores of subjects from individualistic vs. collectivistic societies, and Aslinia et al. (2001), who studied the merits of social-interest based Adlerian theory in collectivist societies, the following hypothesis was generated:

The scores on the depression scale will not correlate with the scores on the social interest scale.

- Based on the findings of Harati (2012), who found that Lebanese people have relatively unchanging levels of expression of Social Interest regardless of their life circumstances, the following hypothesis was generated:

The scores on the life satisfaction scale will not correlate with the scores on the social interest scale.

Significance of the Study

To the researcher's knowledge, no similar research has been conducted in Lebanon or in the Arab world.

Depression affects a lot of people, and treatment is not always as smooth or successful as one would like it to be, and this research might be able to benefit the psychologists' approach to the treatment of depression. Many of the treatment methods, techniques and practices in the treatment of depression involve in part, treating the symptoms of depression, i.e., encouraging the client to be more active, surround himself/herself with family and friends for support, in other words, helping him/her become more sociable, or suggesting to the client to become active in "social interest" acts that could influence his/her perspective on his/her depression, which is quite different than being social, and finally the rest is mostly cognitive therapy, which include helping the client deal with his/her problems and cope with the changes/events that caused or lead up to the depression.

Ultimately, the goal of this research is to explore the possibility of the need for an alternative direction in therapeutic settings for the treatment of depression, if the hypotheses suggesting that higher levels of social interest do not correlate with lower levels of depression or with higher levels of life satisfaction among the Lebanese population, are proven to be true.

Overview of Methodology

The present study included 262 participants from a convenient sample. 122 of them were males and 142 were females. Their ages ranged between 15 and 53 ($M = 21$). All the participants responded to the Beck Depression Inventory-II (BDI-II), the Satisfaction with Life Scale (SWLS), and the Social Interest Scale (SIS). Participants accessed the link to the surveys via Facebook, or a chain e-mail. The results were analyzed using descriptive and correlational statistics.

Delimitations of the Study

The geographical location where participants lived the majority of their lives, whereby out of the total surveyed population, only those who have lived the majority of their lives in Lebanon were selected for the study.

The language of the participants, whereby only English-literate people were able to participate in the surveys, as the survey was in English.

Only people with internet access were able to access the questionnaire that was only available online.

Only pertinent scores were included in the study (i.e., outliers and incomplete responses were eliminated from the studied group).

While socioeconomic status usually plays a role in the understanding of depression and life satisfaction (Pinquart & Sörensen, 2000), this research did not take this factor into account due to the fact that in the Lebanese culture, monetary issues are a bit of a taboo, and based on prior experience, participants tend to exaggerate their income level. In addition, as there is no annual tax system in Lebanon, whereby

people report their income and expenses, and so with the exception of salary-men, most Lebanese do not really know the exact amount of their annual income, as it is a variable amount, shifting with the sociopolitical situation of the country.

Definition of Key Terms

Depression: Severe despondency and dejection, accompanied by feelings of hopelessness and inadequacy. A condition of mental disturbance, typically accompanied with lack of energy and difficulty in maintaining concentration or interest in life (Beck and Alford, 2009)

Life Satisfaction: as defined by Veenhoven, Scherpenzeel, & Bunting (1996) is the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person is satisfied with the life (s)he leads.

Social Interest: One of Adler's key concepts, Social Interest is defined as a trait; an attitude, or a state of being. Something done in social interest, is something done for the good of the society, and not for the individual's personal goals. Having high or low levels of social interest makes the difference between doing something for the common good as well as one's own benefit, as opposed to doing something selfishly without regard to its repercussions on the society as a whole (Adler, 1956).

Chapter Two

Review of Literature

Many factors influence depression, including, but not limited to, genetic factors associated with depression, cognitive processes, biological and hormonal interactions, and finally, social and cultural influences. Depression negatively affects a person's satisfaction with life, and can have long-lasting effects on the person's psyche (Beck and Alford, 2009). Having high levels of Social Interest, act as a shielding factor by increasing a person's social support, to prevent depression, and - other mental health problems (Ansbacher, 1999) that can be prevented.

Depression and Life Satisfaction

Depression is defined as a state of low mood and aversion to activity that can have a negative effect on a person's thoughts, behavior, feelings, world view and physical well-being (Beck & Alford, 2009), while Life Satisfaction, one of the factors used measuring a person's subjective well-being, is the degree to which a person is satisfied with his or her life.

Factors that are usually considered predictors of depression are the family histories of people with depression, the fact that these people have had a major depressive disorder during their childhoods, a recent trauma, a loss, or generally elevated levels of stress, alcoholism, and long-lasting physical sickness (Meyer & Deitsch, 1996).

According to Baron (1998), 12% of men and 21% of women will have depression during their lifetime, and of the male population, 3% will have at least one episode of

severe depression, while this figure is at 6% in the female population. According to Meyer & Deitsch (1996), women who have economic problems, low self-esteem, high levels of helplessness, and a negative view of the world, are more susceptible to depression.

Life Satisfaction, another correlate of depression, is defined by Veenhoven et al. (1996) is the degree to which a person positively evaluates the overall quality of his/her life as-a-whole. In other words, how much the person likes the life he/she leads. Therefore, it does not come as a surprise, when research affirms that Life Satisfaction is negatively associated with levels of Depression (Simpson, Schumaker, Dorahy, & Shrestha, 1996; Lam, Pacala, and Smith, 1997).

A 2006 study Northeastern US examining the relationship between self-esteem, depression, and life-satisfaction found that high self-esteem and higher levels of life-satisfaction significantly correlated with lower levels of depression (Milevsky, Schlechter, Netter & Keehn, 2006). There are also hordes of other research that look into the relationship between life-satisfaction and depression, and all, without exception have found a negative correlation between the two (Broe, Jorm, Creasey, Grayson, Edelbrock, Waite, Bennet, Cullen & Casey, 1998; Frisch, 1998; Archer, Bower, Gilbody, Lovell, Richards, Gask, Dickens & Coventry, 2012; Simpson, Schumaker, Dorahy, & Shrestha, 1996; Koivumaa-Honkanen, Honkanen, Antikainen, Hintikka, Laukkanen, Honkalampi, & Viinamäki, 2008).

In yet another study affirming these results, Headey, Kelley, and Wearing (1993) also looked at the interplay between life satisfaction, positive affect, anxiety and depression, and found a significant correlation between life satisfaction and depression; more specifically they concluded that a person may be satisfied with life

and anxious, but cannot be depressed and satisfied with life at the same time, which leads the current study to expect similar results for Lebanon too.

Depression and Social Interest

Despite the importance of the notion of Adlerian social interest, relatively very little empirical investigation has been conducted about it (Appendix E). Furthermore, there are very few studies about social interest and depression, and even less about social interest and life satisfaction. Saunders & Roy (1999) authored the only other study besides the current one, involving depression, social interest and life satisfaction.

Alfred Adler (1870–1937) was an Austrian psychologist, a theorist in the field of personality, and an advocate of community. His goal was to empower his readers and followers with the advancements made in the field of psychology, education and philosophy (King and Shelly, 2008). Adler's work included some features of cognitive psychology (Oberst & Stewart, 2003), but due to the overly-simplistic English translation of his work, Adler's theories were often overlooked including his writings on social interest (Lehrer, 1999).

Ansbacher, (1999), one of the main translators of Adler's work suggests, that it was Adler's conviction that the reason accounting for majority of the people who had low levels of social interest, was caused by feelings of inferiority, which sometimes leads to the development to inferiority complexes or to compensate: superiority complexes. His solution for this was community therapy to promote social interest. He submitted that people with high levels of social interest were healthy

people, who were apt to promote community feeling or social interest in others as well. Contrary to the notion of self-centeredness, the concept of social interest carries the idea of unity with others, and a sense of belonging (Oberst and Stewart, 2003).

Contrary to the concept of altruism, which involves selflessly doing something for the good of someone else, and often associated with the notion of self-sacrifice for the good of others (Fehr & Fischbacher, 2003), an act committed under Social Interest does not require selflessness or any sort of sacrifice. Moreover, behaviors classified under Social Interest are also self-serving, as Social Interest is a socially desirable and reinforced norm, in some societies more so than others (Hui, 1988; Singelis, Trafimow, Realo, Triandis, & Street, 1998).

In short, according to Adler (1956), social interest is a major factor that affects the person's mental health in such a way that the higher the person's social interest, the higher his/her level of life satisfaction. In 1991, Crandall developed the Social Interest Scale, which was later used by many researchers to test Adler's theories about the role of social interest on the mental health of both clinical and non-clinical subjects (Schwartz, Meisenhelder, Yunsheng & Reed, 2003; Craighead, Curry, & Ilardi, 1995; Gilman, 2001; Miranda & Umhoefer, 1998).

More recently, Adlerians have emphasized the relatedness of Adlerian concepts to the principles of Positive Psychology (Carlson, Watts, & Maniaci, 2006; Leak & Leak, 2006), specifically highlighting the relationship between pro-socialness and social interest. For an instance, a 2006 study by Leak and Leak pointed to a positive correlation between social interest and healthy psychological functioning.

Brewer and Carroll, (2010), found that women in general, have higher levels of social interest than males ($M = 7.67$; $SD = 3.29$ for males, versus $M = 9.73$; $SD =$

2.47 for females) concluding that females would be more successful than males in coping with life tasks, which he said implies that the females (in his sample) should have a greater degree of mental health than their male counterparts.

Williams (1984), suggests a behavioral perspective to depression, whereby he stipulates that depression is the result of poor or lacking presence of reinforcements in a person's life. In addition, a 1974 study conducted by Lewinsohn suggests that it is because of depression, that people have fewer interactions with others, and as a result, miss prospects for receiving positive reinforcement; a notion affirming Adler's concept of social interest, that Feist (1994) describes as a community feeling, and cooperating with others to achieve communal goals rather than personal ones.

In 1984, in a study conducted by Crandall, the creator of the Social Interest Scale, levels of social interest proved to be negatively linked to the amount of stress one would incur during a year, and stress as a variable showed a lower correlation with depression in people with higher levels of social interest than their counterparts.

Other , more recent studies have established correlations between depression and life satisfaction, whereas others have found links between depression and social interest, and yet others were able to detect, a correlation between all three of these variables (Hammond, 2012; Crandall, 1980; Schwartz, Meisenhelder, Yunsheng & Reed, 2003; Craighead, Curry, & Ilardi, 1995; Gilman, 2001, Adler, 1981; Highlander, 1984; Miranda & Umhoefer, 1998; Lantz, 1981), demonstrating significant correlations between all three of the aforementioned variables. The most recent of which, conducted by Saunders & Roy (1999) observed a significant negative correlation between Social Interest and Depression with $r = -0.405$ ($p < .001$), a significant negative correlation between Depression and Life Satisfaction with $r = -$

0.506 ($p < .001$), and a significant positive correlation between Life Satisfaction and Social Interest with $r = 0.462$ ($p < .001$). These studies, however, did not find any significant differences in their results when demographic factors such as sex, age, or level of education were put under focus.

Moreover, when studying the relationship between mental health and social interest, the results showed that people with higher levels of social interest have a better level of mental health than those with lower levels of social interest (Schwartz, Meisenhelder, Yunsheng & Reed, 2003), thus providing further validation regarding the relationship between social interest and depression. However, unlike what has been stated so far in terms of the negative relationship between social interest and depression in the available literature, the author of this study predicts that no correlation exists between both variables when the population being studied is a collectivist one, such as the Lebanese (author's second hypothesis). In fact, a study by Gilman (2001), reported significant differences in scores between some populations on the social interest scale, depending on race and ethnic background. Specifically, participants who came from a collectivistic society showed higher social interest scores than those from a predominantly individualistic society. However, the differences in scores of the ethnic minorities did not change the direction of the study's overall results as the samples of these particular groups were quite small.

Characteristics of Collectivist Cultures

One of the characteristics of collectivist societies, the most relevant to this research, is the interdependence of individuals within their inner circles, and their allocation of priorities to the aspirations, objectives and goals of their inner circles. It shapes their behavior mostly on the basis of these circles' norms, and leads them to a more communal behavioral path (Mills & Clark, 1982).

Relationships in collectivist cultures are of great importance. For example, in situations of conflict, collectivists are chiefly concerned with maintaining their relationship status with others, while individualist societies' primary goal is the establishment of justice (Ohbuchi, Fukushima, and Tedeschi, 1999). Leung, (1997) reports that collectivists are more biased toward resolving conflicts in methods that would maintain their relationships and not destroy them, while individualists will readily resort to lawyers and law suits in the settlement of their disputes.

Collectivists often internalize the norms of the groups they belong to and take pleasure in fulfilling the expectations these groups have of them (Bontempo, Lobel, & Triandis, 1990). They receive marginally higher levels of social support, and are not as likely as individualists to experience feelings of loneliness or isolation (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988).

Miller (1997) reports that, in a collectivist society, helping a member of one's group is regarded a duty, whereas in an individualist society, it is considered a matter of choice or an option rather than a duty. Even liking a person or not does not affect the collectivist person's choice of helping a member of his/her group or society (Miller & Bersoff, 1998). In collectivist societies, morality is contextual, because the welfare of the collective is seen as the supreme value. For example, lying, in

collectivist societies, is an acceptable behavior, but only if it's done to "saves face", or if it helps the group the person belongs to (Trilling, 1972).

In another research conducted by McAuliffe, Jetten, Hornsey and Hogg (2002), the researchers found that in the collectivistic society being studied, in this case Indonesia, collectivist behavior that benefitted the group would be evaluated more positively and was considered the normative behavior, compared to individualistic behavior within the same group.

Social Interest and Life Satisfaction

In a study conducted by Ayyash-Abdo (2001), in which Lebanese (n = 466) and Arab (n = 51) university students were surveyed on different factors including their levels of collectivism/individualism, 67.3% of the sample proved to be collectivist.

According to Harati (2012), factors such as mental health, physical health, the educational level as well as the socioeconomic status do not affect the individual's expression of social interest in a collectivist society such as Lebanon. Other studies show that social interest is considered to be a desirable and socially rewarded norm in collectivist societies, more so than in individualist societies (Aslinia, Rasheed & Simpson, 2011). In other words, one can make the connection here that scoring high on social interest does not necessitate being satisfied or not with life's circumstances. Based on the explanations provided in this literature regarding the nature of collectivist societies, which includes Lebanon, the author assumes that there will be

no correlation between social interest and life satisfaction among the Lebanese population.

In conclusion and in light of the above-mentioned explanations regarding the importance of social interest in collectivist societies, the author predicts that, unlike in previous studies conducted in mostly individualistic societies, the Lebanese's level of social interest will not correlate with neither levels of life satisfaction nor will it correlate with levels of depression; and as the author has no justification to assert otherwise, predicts that, like previous studies, that life satisfaction and depression among Lebanese adults will correlate negatively with each other. More specifically, the following three hypotheses were predicted:

- 1) The scores on the depression scale will negatively correlate with the scores of the life satisfaction scale.
- 2) The scores on the depression scale will not correlate with the scores on the social interest scale.
- 3) The scores on the life satisfaction scale will not correlate with the scores on the social interest scale.

Chapter Three

Method

The following chapter consists of three sections: presenting the surveyed population, describing the psychometric instruments as well as the procedure of the study.

Participants

This study included 262 participants, of which 140 females (53%) and 122 males (47%) were divided into four age-groups: 15 to 18 (10%), 19 to 25 (58%), 26 to 30 (18%), and 31 or older (17%). Of these participants, 6% have had some school education, 15% have or are working toward a high-school diploma, 55% have or are working toward an undergraduate degree, 21% have or are working toward a graduate degree, and 3% have or are working toward completing their postgraduate education. All of them have lived the majority of their lives in Lebanon.

Materials

Beck Depression Inventory II: The Beck Depression Inventory II (BDI-II) is a self-administered test that is comprised of 21 items (Appendix A). The BDI-II is designed to measure the level of depression in adolescents and adults (Beck, Steer, & Brown, 1996). Subjects are presented with the instruction to select whichever statement that best defines how they felt during the past two weeks including the day they were given the Inventory. The questions are rated on a four point scale (0 to 3),

and the total score is the simple summation of the item ratings. Scores between zero and 13 are suggestive of minimal or no depression; scores between 14 and 19 are suggestive of mild depression, scores between 20 and 28 are suggestive of moderate depression, and scores between 29 and 63 are suggestive of severe depression. BDI-II has no subscales. The Cronbach alpha for the BDI-II were .92 in the outpatient population (n= 500), and .93 for (n=120) college students (Smith & Erford, N.A.).

Satisfaction with Life Scale: The Satisfaction with Life Scale (SWLS, Diener, Emmons, Larsen, & Griffin, 1985) is a five-item scale (Appendix B) that “is designed around the idea that one must ask subjects for an overall judgment of their life in order to measure the concept of life satisfaction” (Diener et al., 1985, pp. 71-72). Individuals indicate their degree of agreement or disagreement on a 7-point Likert-type scale. Scores range from 5 to 35 with higher scores indicating greater life satisfaction. The Cronbach alpha for the SWLS was .927 in a mixed population (n=174) comprised of Asian (n=32), White (n=44), Black (n=39), Hispanic (n=33), and other ethnicities (n=26) (Yoshioka, N.A.).

Social Interest Scale: Social Interest is measured using Crandall’s (1975; 1980) scale. The 21 item (Appendix C) Social Interest Scale (SIS) instructs subjects to select between sets of two personality traits, according to which they value more. While one trait represents social interest the other does not. For example, subjects were asked “What would you rather be? Quick-witted or Helpful?” When a subject chooses the item reflecting social interest he receives a score of 1 on that item or zero, if he does not. The overall score on the SIS is derived by summing up the scores on 15 of the 21 questions’ responses. The split-half reliability for Groups I, II and III

using the Spearman-Brown formula was .77, the rest-retest reliability over 5 weeks was .82(Crandall, 1991).

Procedure

After approval from Dr. Gharzedine on the materials to be used in the data gathering process (demographics, BDI-II, SWLS and SIS), and getting the approval of Dr. Hout on the particularities of the study (hypothesis under consideration and methods of gathering data), the questionnaires were rendered online under a single URL, and distributed over the net via chain emails, and on popular pages on Facebook where visitors are mostly Lebanese. Participants were asked to participate in a survey for a Master's thesis studying Depression, Life Satisfaction and Social Interest, and were encouraged to forward the questionnaire's link to anybody they wished to forward it to. The survey was made out of four internet pages, the first of which had the demographic data page, the second had the BDI-II, the third had the SWLS, and the last one had the SIS. Upon completion of the survey, participants submitted their answers to the researcher by pressing a button that said "submit", and the data were then automatically stored in the researcher's online database.

Chapter Four

Results

This chapter shows the results of the data analysis, by delineating correlations between the studied variables, as well as displaying a reliability matrix for all the three scales.

Reliability Testing

Table 1.0 - Cronbach Alpha for the BDI-II, SWLS and SIS Scales

Scales	Previous studies Cronbach's alpha	Current study's Cronbach's alpha
BDI-II	.91 ^a	.868
SWLS	.87 ^b	.855
SIS	.74 ^c	.63

a) Beck, Steer, Ball, & Ranieri (1996)

b) Diener, Emmons, Larsen & Griffin (1985)

c) Zauszniewski (1994)

Based on the computed reliabilities, the Beck Depression Inventory-II (BDI-II), the Satisfaction with Life Scale (SWLS), and the Social Interest Scale (SIS) are all considered reliable enough for research purposes (Table 1.0).

Hypotheses Testing

To test the three predicted hypotheses, a preliminary analysis involved examining the relationships between the six variables (BDI-II, SWLS, SIS, Age, Sex, and Education); by doing a correlational study (Pearson), as displayed in Table 2.0.

Table 2.0 – Correlations between the BDI-II scale , the SWLS scale, the SIS scale, age and sex

	BDI-II	SWLS	SIS	Age	Sex
SWLS	-.539**				
SIS	-.080	.164**			
Age	-.048	-.071	.142*		
Education	-.192**	.015	.048	.381**	-.116

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

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

N = 262

H1 expected that the scores on the depression scale will negatively correlate with the scores of the life satisfaction scale. H2 expected that the scores on the depression scale will not correlate with the scores on the social interest scale. Both hypotheses were confirmed, as evidenced by the significant negative correlation between BDI-II and SWLS, and the absence of a significant correlation between BDI-II and SIS in Table 2.0. Additionally, the correlation matrix shows a significant positive correlation between Age and the SIS, suggesting that peoples' level of Social Interest rises with the advancement of their age.

H3 expected the scores on the life satisfaction scale not to correlate with the scores on the social interest scale, but as evidenced by Table 2.0, the correlation matrix shows a significant positive correlation between SWLS and SIS.

Additionally, Table 2.0 shows a significant positive correlation between Age and Education, which is expected.

There also was a significant negative correlation between BDI-II and Education, but not between age and BDI-II, suggesting that the higher a person's level of education is, the lower their levels of depression will be.

Expansion on Research

In extension of the research, gender specific correlations were calculated for the studied variables, the results of which are shown in Tables 3.0 and 3.1.

Table 3.0 – Pearson correlation for the BDI-II, SWLS and SIS in the Female population

	BDI-II	SWLS	SIS	Age
SWLS	-.548**			
SIS	-.199*	.273**		
Age	-.138	-.081	.046	
Education	-.202*	.051	-.007	.367**

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

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

N = 140

Table 3.1 – Pearson correlation for the BDI-II, SWLS and SIS in the Male population

	BDI-II	SWLS	SIS	Age
SWLS	-.534**			
SIS	-.047	.087		
Age	.012	-.051	.215*	
Education	-.238**	-.014	.062	.384**

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

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

N = 122

The analysis of Table 3.0 and 3.1 shows marked and surprising differences in the correlation matrices. The Female population, as seen in Table 3.0, shows significant triple-correlations between all three of the main studied variables (BDI-II, SWLS and SIS), while in the Male population, the singular correlating variables were between the SWLS and BDI-II.

As for Age and Education, contrary to the Male population, the Female population showed no correlation between Age and SIS, while both sexes consistently had a significant negative correlation between BDI-II and Education.

The new results therefore indicate that H3 was confirmed for the male population and not confirmed for the female population; as contrary to the Female population, the Male population did not have a significant correlation between SWLS and SIS.

Finally, while H2 was confirmed during the initial analysis of data, following the gender specific statistics, H2 now shows to have been confirmed for the male population and not confirmed for the female population.

Additional Analysis: Gender Controlled Analysis of Means

Table 4.0 – Independent Samples Test of between Males and Females and BDI-II, SWLS and SIS.

	Sex	N	Mean	Std. Deviation	t	p
BDI-II	Female	140	14.79	7.353	3.084	.002
	Male	122	11.84	8.127		
SWLS	Female	140	19.30	6.178	-.765	.445
	Male	122	19.90	6.537		
SIS	Female	140	8.14	2.460	2.989	.003
	Male	122	7.15	2.874		

As evidenced by Table 4.0, the results show that Females on average have significantly higher levels of Depression than Males, where the average of females is indicative of mild depression, and that of males is indicative of minimal depression.

On another hand, both Males and Females showed to have the same average on the SWLS, and both scores are considered to fall under the “low average” section of the SWLS continuum, and the t-test shows no significance in the difference of these means. And as shown in Table 4.0, females scored a significantly higher mean on the Social Interest Scale, than males.

Chapter Five

Discussion

This chapter presents the discussion of the study which investigated the relationships between depression, satisfaction with life, social interest and gender. It is divided into three main sections: a discussion of the results as well as the limitations followed by recommendations for future research, and finally, a set of implications drawn from the findings of the study.

Summary and Discussion of Findings

The purpose of the study was to investigate the interplay between depression, life satisfaction and social interest in the Lebanese population.

The first hypothesis, which predicted that the scores on the depression scale will negatively correlate with the scores of the life satisfaction scale, was confirmed for both Lebanese males and females. This is consistent with previous research (Broe, Jorm, Creasey, Grayson, Edelbrock, Waite, Bennet, Cullen, & Casey, 1998; Frisch, 1998; Archer, Bower, Gilbody, Lovell, Richards, Gask, Dickens, & Coventry, 2012; Simpson, Schumaker, Dorahy, & Shrestha, 1996; Koivumaa-Honkanen, Honkanen, Antikainen, Hintikka, Laukkanen, Honkalampi, & Viinamäki, 2008; Cuypers, Krokstad, Holmen, Knudtsen, Bygren, & Holmen, 2012) which states that life satisfaction and depression are negatively correlated. In other words, one can conclude that in Lebanon the relationship between these two variables is similar to other countries, at least, among a convenient Lebanese sample.

As far as the second hypothesis was concerned, which predicted that the scores on the depression scale will not correlate with the scores on the social interest scale, it was confirmed when the total population was examined. However, when gender was controlled, this hypothesis was not confirmed for the females. In other words, even though there was no significant correlation between males' scores on the depression scale and their scores on the social interest scale, there was however a significant negative correlation between the females' scores on the depression scale and their scores on the social interest scale. These females' correlations between BDI-II and SIS are consistent with the literature cited in Chapter Two, whereby Depression and Social Interest were found to be correlating negatively with one another (Saunders & Roy, 1999; Schwartz, Meisenhelder, Yunsheng & Reed, 2003; Craighead, Curry, & Ilardi, 1995; Gilman, 2001; Miranda & Umhoefer, 1998).

As for why there was no significant correlation between the Lebanese males' scores on the depression scale and their scores on the social interest scale, the following explanations are plausible:

First, another factor could exist, other than collectivism/individualism, that is affecting the correlation between the scores, except for the farfetched possibility that, in general, Lebanese males are much more collectivistic than the Lebanese females; an argument that can be refuted by the Females' significantly higher scores on the SIS.

Another reason could be that males in Lebanon do not express their social interest as frequently as females do and/or are not as active in this area. Hence, they could be either missing out on opportunities to express their social interest which is

consistent with Williams' (1984) behavioral perspective on depression, or do not receive enough positive reinforcement on their social interest, for the effects of social interest to shield them from future depression.

Finally, one can argue that there is a difference in the way Lebanese males receive feedback on their acts of social interest, to the extent that the support group that is supposed to be established and grow between people who are engaged in social interest activities and their society is nonexistent, and so, the effects of social interest cannot get into motion to affect the mental health of Lebanese males.

The third hypothesis predicted that the scores of the life satisfaction scale will not correlate with the scores of the social interest scale. This hypothesis was not confirmed as the scores of the social interest scale did correlate with the scores of the life satisfaction scale. However, after further analysis that was achieved through the controlling of the gender, results indicated that this hypothesis was confirmed for the male population but not for the female population. In other words, consistent with prior research (Crandall, 1991; Schwatz, Meisenhelder, Yunsheng & Reed, 2003; Gilman, 2001; Adler, 1981), it was shown that a significant positive correlation exists between social interest and life satisfaction, however, only among the female population, whereas such a correlation is absent among the males.

While social interest should be correlated with life satisfaction because of the effect of social interest on mental health and depression, it could be that among Lebanese males, contrary to Lebanese females, there is a breakdown in the functioning cycle of social interest somewhere in the chain of events described by Adler (1964) that fuel the mechanism of social interest (action in social interest > reinforcement > positive affect > closeness to society > better support group).

Additional analysis of the data showed that in Lebanese males, the levels of social interest go up as they get older, while age shows no correlation with social interest in Lebanese females. One can argue here that Lebanese females are maybe conditioned more than men to engage in social interest acts early on in life, and, therefore age does not play a role for them here. For instance, many more Lebanese women than men participate and work closely in various charities. Moreover, the role of women, in general, be it a future mother or aunt, mainly a continuously giving and sacrificing person, is very much reinforced in the Lebanese culture from the moment the Lebanese young girl is born (Daily Star, 2007).

Therefore, one can argue here that maybe it is society's expectations that instill this early focus on social interest among the females regardless of age. Men, on the other hand, have to mature first to start appreciating the benefit of social interest. One can conclude here that maybe Lebanese women do not have to wait till they reach the Generativity vs. Stagnation stage, as discussed by Erikson, to start showing their interest in social interest activities (Bradley, 1997; Hook, 2002).

Other additional analysis of the data showed that as levels of education go up, levels of depression go down. In other words, in Lebanon, the more a person is educated, the less likely he/she is to be depressed, which is consistent with previous findings that suggest the existence of a positive correlation between education and mental health (Ross & Mirowski, 2006).

Limitations and Directions for Future Research

Some limitations of this study merit consideration.

- 1- Even though the sample of the study was comprised of participants from a multitude of backgrounds, ages, occupations and educational levels, the number of participants ($n = 262$) was relatively small, the questionnaire was entirely in the English language as opposed to Arabic, and it was only accessible online. This all meant that the participants had to be at the very least English-literate and have access to the internet. These two factors limit the generalizability of this study's findings. Future studies on this topic might want to replicate the current study's findings, but use a 3-language version of the questionnaires online, in addition to gathering data from remote regions of Lebanon where people do not have access to the internet.
- 2- In the assessment of the levels of depression, life satisfaction, and social interest, self-report scales were used, meaning the data were only based on the participants' biased perceptions, and could have been reported inaccurately, due to the Socially Desirable Response effect.
- 3- While socioeconomic status plays a big role on depression and life satisfaction, this research did not take this factor into account due to the fact that in the Lebanese culture, monetary issues are a bit of a taboo, and based on personal previous research experience, participants tend to exaggerate their income level. Future studies could if possible, come up with a method of accurately measuring or reporting socioeconomic status, and use that data with the rest of the variables while studying this topic.

Future Implications

This is the first time that the topic of Social Interest is being put under the loop in Lebanon. The results of this study did not conform to all the hypotheses, and as a consequence, the generalization stipulating that levels of Social Interest in Lebanon are not bound by life circumstances was not made. Yet, the current study showed that contrary to all previous studies done elsewhere, there seems to be a very big difference in the relationship of social interest with the sexes, and the way that social interest affects their lives.

If the fact of the matter is simply that Lebanese males' levels of social interest is not affected by their life circumstances because of the nature of Lebanese societies, then gender specific treatment methods could be, and should be devised for a more efficient treatment of depression; and if only one mental health problem (depression) showed results differing from the known norm, then what of other mental health problems that are comorbid with depression?– But if it is so that the absence of correlation between the males' scores on the social interest scale and their scores on the depression and life satisfaction scales is due to factors such as the lack of expression of social interest or to the nature, frequency and adequacy of the responses they receive to acts of social interest or the lack thereof, then therapy for depressed males in Lebanon could concentrate on improving their expression of social interest, increasing the frequency of acts done in social interest, or simply knowing how to acknowledge and use the reinforcement they receive to better their relationship with their society, and build a better support group to prevent, or overcome future hardships.

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Appendices

Appendix A

Beck Depression Inventory-II

DIRECTIONS: This questionnaire consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the one statement in each group that best describes the way you have been feeling during the past two weeks, including today.

If several statements in the group seem to apply equally well, choose the one that has the highest number for that group.

Be sure that you do not choose more than one statement for any group, including Item 16 (Changes in Sleeping Pattern) or Item 18 (Changes in Appetite).

1. Sadness

- 0 I do not feel sad.
- 1 I feel sad most of the time.
- 2 I am sad all the time.
- 3 I am so sad or unhappy that I can't stand it.

2. Pessimism

- 0 I am not discouraged about my future.
- 1 I feel more discouraged about my future than I used to be.
- 2 I do not expect things to work out for me.
- 3 I feel my future is hopeless and will only get worse.

3. Past Failure

- 0 I do not feel like a failure.
- 1 I have failed more than I should have.
- 2 As I look back, I see a lot of failures.
- 3 I feel I am a total failure as a person.

4. Loss of Pleasure

- 0 I get as much pleasure as I ever did from the things I enjoy.
- 1 I don't enjoy things as much as I used to.
- 2 I get very little pleasure from the things I used to enjoy.
- 3 I can't get any pleasure from the things I used to enjoy.

5. Guilty Feelings

- 0 I don't feel particularly guilty.
- 1 I feel guilty over many things I have done or should have done.
- 2 I feel quite guilty most of the time.
- 3 I feel guilty all of the time.

6. Punishment Feelings

- 0 I don't feel I am being punished.
- 1 I feel I may be punished.
- 2 I expect to be punished.
- 3 I feel I am being punished.

7. Self-Dislike

- 0 I feel the same about myself as ever.
- 1 I have lost confidence in myself.
- 2 I am disappointed in myself.
- 3 I dislike myself.

8 Self-Criticalness

- 0 I don't criticize or blame myself more than usual.
- 1 I am more critical of myself than I used to be.
- 2 I criticize myself for all of my faults.
- 3 I blame myself for everything bad that happens.

9. Suicidal Thoughts or Wishes

- 0 I don't have any thoughts of killing myself.
- 1 I have thoughts of killing myself, but I would not carry them out.
- 2 I would like to kill myself.
- 3 I would kill myself if I had the chance.

10. Crying

- 0 I don't cry any more than I used to.
- 1 I cry more than I used to.
- 2 I cry over every little thing.
- 3 I feel like crying, but I can't.

11. Agitation

- 0 I am no more restless or wound up than usual.
- 1 I feel more restless or wound up than usual.
- 2 I am so restless or agitated that it's hard to stay still.
- 3 I am so restless or agitated that I have to keep moving or doing something.

12. Loss of Interest

- 0 I have not lost interest in other people or activities.
- 1 I am less interested in other people or things than before.
- 2 I have lost most of my interest in other people or things.
- 3 It's hard to get interested in anything.

13. Indecisiveness

- 0 I make decisions about as well as ever.
- 1 I find it more difficult to make decisions than usual.
- 2 I have much greater difficulty in making decisions than I used to.
- 3 I have trouble making any decisions.

14. Worthlessness

- 0 I do not feel I am worthless.
- 1 I don't consider myself as worthwhile and useful as I used to.
- 2 I feel more worthless as compared to other people.
- 3 I feel utterly worthless.

15. Loss of Energy

- 0 I have as much energy as ever.
- 1 I have less energy than I used to have.
- 2 I don't have enough energy to do very much.
- 3 I don't have enough energy to do anything.

16. Changes in Sleeping Pattern

- 0 I have not experienced any change in my sleeping pattern.
- 1a I sleep somewhat more than usual.
- 1b I sleep somewhat less than usual.
- 2a I sleep a lot more than usual.
- 2b I sleep a lot less than usual.
- 3a I sleep most of the day.
- 3b I wake up 1-2 hours early and can't get back to sleep.

17. Irritability

- 0 I am no more irritable than usual.
- 1 I am more irritable than usual.
- 2 I am much more irritable than usual.
- 3 I am irritable all the time.

18. Change in Appetite

- 0 I have not experienced any change in my appetite.
- 1a My appetite is somewhat less than usual.

1b My appetite is somewhat greater than usual.

2a My appetite is much less than before.

2b My appetite is much greater than usual.

3a I have no appetite at all.

3b I crave food all the time.

19. Concentration Difficulty

0 I can concentrate as well as ever.

1 I can't concentrate as well as usual.

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

3 I find I can't concentrate on anything.

20. Tiredness or Fatigue

0 I am no more tired or fatigued than usual.

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

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

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

21. Loss of Interest in Sex

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

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

2 I am much less interested in sex now.

3 I have lost interest in sex completely.

Appendix B

Satisfaction with Life Scale

DIRECTIONS: Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your level of agreement with each item. Please be open and honest in your responding.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neither agree nor Disagree
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

1. In most ways my life is close to my ideal. _____
2. The conditions of my life are excellent. _____
3. I am satisfied with life. _____
4. So far I have gotten the important things I want in life. _____
5. If I could live my life over, I would change almost nothing. _____

Appendix C

Social Interest Scale

DIRECTIONS: Below are a number of pairs of personal characteristics or traits. For each pair, check the trait which you value more highly. In making each choice, ask yourself which of the traits in that pair you would rather possess as one of your own characteristics. For example, the first pair is "imaginative - rational." If you had to make a choice, which would you rather be? Note: Some of the traits will appear twice, but always in combination with a different other trait. No pairs will be repeated.

	I would rather be...			
1	imaginative			rational
2	helpful			quick-witted
3	neat			sympathetic
4	level-headed			efficient
5	intelligent			considerate
6	self-reliant			ambitious
7	respectful			original
8	creative			sensible
9	generous			individualistic
10	responsible			original
11	capable			tolerant
12	trustworthy			wise
13	neat			logical
14	forgiving			gentle
15	efficient			respectful
16	practical			self-confident
17	capable			independent
18	alert			cooperative
19	imaginative			helpful
20	realistic			moral
21	considerate			wise
22	sympathetic			individualistic
23	ambitious			patient
24	reasonable			quick-witted

Appendix D
Demographics

Please indicate your age: _____

Please indicate your sex:

Male _____

Female _____

Please indicate your occupation: _____

Please indicate your level of education:

Some school education _____

High school diploma _____

Undergraduate diploma (BA, BS...) _____

Graduate diploma (MA, MS,...) _____

Postgraduate diploma (PhD,...) _____

Have you lived the majority of your life in:

Lebanon _____

Other _____

Appendix E

Scarcity of Literature

The table below shows the number of hits received upon searching in the Lebanese American University's online databases for all English language scholarly publications (including peer-reviews).

There were:

No "subject term" restrictions

No "publication date" restrictions

No "content type" restrictions

(So results included: Books, eBooks, book chapters, book reviews, conference proceedings, dissertations, thesis, journal articles, newspaper articles, papers, and reports,...)

Search term	Number of hits
Depression	866,363
Life Satisfaction	28,418
Social Interest*	<u>575</u>
Depression <u>AND</u> Life Satisfaction	14,602
Depression <u>AND</u> Social Interest*	1,467
Life Satisfaction <u>AND</u> Social Interest*	36
Social Interest* <u>AND</u> Lebanon	0

*Search parameters on Social Interest included only Adlerian social interest, as there are many different concepts of social interest that are unrelated to the Adlerian concept of the term, that are inconsequential to this study.