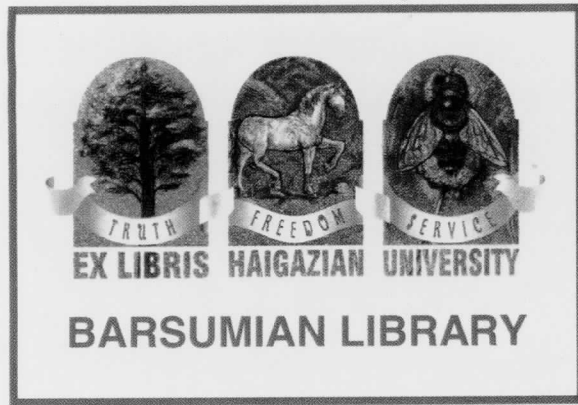


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The Relationship between Childhood Parental Bonding and Adulthood Anxiety Disorders, Self-esteem, Risk of Suicide and Religion among Lebanese Adults

Lama Hamdoun

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.

Beirut- Lebanon

December 2018

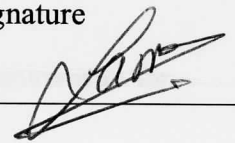
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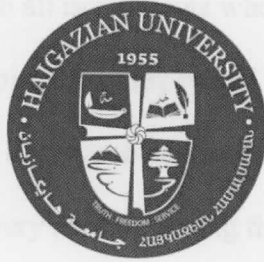
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The Relationship between Childhood Parental Bonding and Adulthood Anxiety Disorders, Self-esteem, Risk of Suicide, and Religion among Lebanese Adults

By Lama Hamdoun

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

Date Dec. 14, 2018

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December 2018

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ACKNOWLEDGMENTS

DEDICATION

I would like to dedicate this thesis to all my patients whether a child, a woman or a man who inspired me to pursue this topic, hoping that they would continue to move forward towards better well-being by knowing that they all deserve to be loved and cared for by their parents. I would like to also dedicate this thesis to every parent, hoping that we achieve world peace by going home and loving our families.

I would like to thank my sister Chahing and my brothers Hady, Fouad and Mohamed for being the winners of my life and for the care and love they show me.

I would like to thank my husband Judge Dr. Ahmed Issa for the support and encouragement he has shown throughout the thesis journey. I thank him for teaching me all about commitment, determination and for making me feel loved and cared for every day.

I would also like to thank my advisor Dr. Houda Hout for always believing in my capabilities. Her support, feedback, regular encouragement made the completion of this thesis possible.

I would like to thank Dr. David Tawil for his time, dedication and for all the advice he has provided me with and all the compassion he has shown me throughout this journey.

I thank Dr. Marwan Ghareeb for his contribution and feedback in order to improve the outcome of the thesis.

Finally, I would like to thank my patients for being my inspiration and my teachers of resilience.

ACKNOWLEDGMENTS

First, I would like to thank God for giving me the daily strength and motivation I needed to complete the work.

I would like to thank my mother for helping me reach my dreams and for giving me a chance to be who I want to be.

I thank my father for always encouraging me to reach my full potentials and for installing hope and ambition in me. Mostly I thank him for never giving up on me.

I would like to thank my sister Chirine and my brothers Hadi, Jawad and Mohamad for being the witnesses of my life and for the care and love they show me.

I would like to thank my husband Judge Dr. Ahmad Issa for the support and encouragement he has shown throughout the thesis journey. I thank him for teaching me all about commitment, determination and for making me feel loved and cared for every day.

I would also like to thank my advisor Dr. Hanine Hout for always believing in my capabilities. Her support, feedback, regular encouragement made the completion of this thesis possible.

I would like to thank Dr. David Tawil for his time, dedication and for all the advice he has provided me with and all the compassion he has shown me throughout this journey.

I thank Dr. Marwan Gharzeddine for his contribution and feedback in order to improve the outcome of the thesis.

Finally, I would like to thank my patients for being my inspiration and my teachers of resilience.

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Abstract

The study investigated the relationship between parental bonding and anxiety disorders, lowered self-esteem, risk of suicide and religion among the Lebanese adults. A total of 200 university students with an age range between 18 and 30 years participated in this study by filling a demographic questionnaire, the Parental Bonding Instrument (PBI), Beck anxiety scale (BAI), Suicide Behaviors Questionnaire-Revised (SBQ-R) and Rosenberg Self-esteem Scale. Scores were analyzed using t-tests and correlational methods including multiple regression. The results showed a positive correlation between paternal parental control and suicide risk as well as anxiety. Also, a negative correlation was found between maternal and paternal parental care and suicide risk. In addition, a positive correlation was found between paternal parental control and anxiety. Also there was a positive correlation between maternal and paternal parental care and self-esteem. A negative correlation was found between paternal parental control and self-esteem. Finally, Christian fathers exhibited higher levels of parental care than Muslim fathers. The study concluded that the parental bonding factors of care and control can be a key determinant of the individual's anxiety, self-esteem and suicide risk among the Lebanese adults. The study suggested to reexamine in more depth the operational definition of the concept of "care" as well as "control" in the Lebanese culture.

Keywords: parental bonding, anxiety disorders, self-esteem, suicide risk, religion, Lebanese.

The Relationship between Childhood Parental Bonding and Adulthood Anxiety Disorders, Self-esteem, Risk of Suicide and Religion among Lebanese Adults

In the past few decades, the world has experienced a mounting concern over the increased prevalence and burden of mental health disorders that is affecting people worldwide including the Arab world (Kessler, Aguilar-Gaxiola, Alonso, Chatterji, Lee, Ormel & Wang, 2009; Steel, Marnane, Iranpour, Chey, Jackson, Patel & Silove; Yahia, 2012). A study conducted on a Lebanese national representative sample of 2,857 adults revealed that about one-fourth of the sample (N= 714) met at least one criteria of the DSM-IV psychiatric disorders at some point in their lives; indicating that mental disorders in Lebanon are quite common (Karam et al., 2008). This points to the need for extensive work on understanding the treatment and prevention of the mental disorders in Lebanon at large. Studies have revealed numerous causes for the onset of psychiatric symptoms originating mainly in childhood adverse parental bonding (Bahreini, Akaberian, Ghodsbin, Yazdankhah, Fard and Baghmollaei, 2011; Lima, Mallo and Mari, 2010). For instance, previous research demonstrated how adverse parental bonding was associated with various psychiatric conditions among which are anxiety disorders (Ambruster and Witherington, 2016; Lima et al., 2011; Dekel and Solomon, 2015), suicidal thought and behavior (Freudenstein et al., 2011; Yterdal, 2016; Heider, 2000) as well as a decrease in the levels of self-esteem (Bahreini et al., 2011; Ngai and Cheung., 2009; Passanisi, Gensabella and Pirrone, 2015). The present study examines specifically the inter relationships between childhood parental bonding and adulthood anxiety disorders, self-esteem and risk of suicide and religion among Lebanese adults.

In the first two formative years of life, infants show profound dependence on the parents where the loving bond and the attachment relationship with the parent is highly indispensable

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(Winston and Chicot, 2016). Parental bonding is referred to as the primary attachment between the child and his caregivers, with this bond influencing the child's future social, cognitive, emotional experiences as well as his/her personality development (Cailian & Shihan, 2012). According to the American Psychological Association, "parental bonding is considered as one of the most fundamental aspects of a child's upbringing; it is critical as to ensuring children's health and safety, as it prepares them for becoming productive adults" (American Psychological Association, 2014). Current data indicate that parent-child relationships may play a role in preventing or promoting the development of psychiatric symptoms (Lima, Mello, Mari, 2010). More specifically, adverse parenting acts as a potential risk factor for adult psychopathology (Enns, Cox and Clara, 2002; Lima, Mari & Mello, 2010).

Parental Bonding Typology. According to Parker, Tupling and Brown (1979), parental bonding is composed of two patterns. The first pattern is known as the caring parental bonding which displays warm, close and sympathetic parent-child relationship (Parker et al., 1979). Such pattern comes in opposition to the cold, repelling and neglectful parent-child relationship (Parker et al., 1979; Xu, Morin, marsh, Richards and Jones, 2016). The second pattern is known as the controlling parental bonding which displays the level of control that parents exert over their children; such pattern is characterized by overprotection, intrusion and prevention of independent behavior of their children, and is considered a form of negative parenting (Parker et al., 1979; Wilhelm, Gillis and Parker, 2016; Xu, Morin, marsh, Richards and Jones, 2016). The combination of these two patterns produces the following four sub-parental bonding categories (1) high care/low control, designated as 'optimal Parenting' (2) high care/high control, designated as 'affectionate constraint (3) 'low care/low control, designated as 'neglectful parenting' (4) low care/high control, designated as 'affectionless control' (Parker et al., 1979). It

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has been shown that the parental bonding style “affectionless control is considered to possess the highest association with psychological distress and later development of psychiatric conditions (Young, Lennie and Minnis, 2011). Seen that parental bonding style is composed of elements that might provide negative effects on the children and later in their adulthood (Bahreini et al., 2011; Lima et al., 2010), these elements remain essential for understanding how parental bonding might be a precursor for psychiatric problems. Parental Bonding can be identified as paternal parental bonding style or maternal parental bonding style. Each parenting style consists of components of Care and Control. Therefore, an individual can be subjected to one paternal bonding style and/or one maternal bonding style. (Anno et al., 2015)

Association between Parental Bonding and psychopathology

Previous research has demonstrated that close, loving, responsive relationships between children and parents creates a medium where aggression and negative emotional behaviors of their children become less likely to appear, which in turn will help in serving a better bonding function between the parents and their children; thus, helping these children acquire the behavioral and emotional benefits needed (Cailian and Shihan, 2012). On the other hand, a vast amount of research evidence from developmental psychology shows that lack of love, neglect, and parental inconsistency can lead to long-term mental health problems and reduced happiness that set limit to overall potential actualization of their children. (Winston and Chicot, 2016).

The ability of the parent-child early interactions to influence the later mental health of the individuals is mainly based on the attachment theory principles which explains how the individual is able to incorporate a set of emotive and behavioral responses (Lima et al., 2011). Secure attachment style achieved by presence of care parental dimension in the parent-child relationship, offers the capacity for emotion regulation as well as the capacity for self-perception

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and the perception of others which helps in managing positive and adaptive relationship with other people (Lima et al., 2011; Ngai and Cheung, 2009). Furthermore, parental support reflecting the care dimension plays a critical role in enhancing self-confidence and self-regulation throughout the individual's development (Baumrind, 1987). Elsewise, insecure attachment style, which results from parental over control or rejection, may result in increasing the risk for the infant's confrontation with later problems in self-regulation, self-confidence and the experience of emotional difficulties, thus, predisposing the child for future psychopathological conflicts (Baumrind, 1987; Ngai and Chueng, 2009). Therefore, and as stated before, adverse parenting factors may entail the formation of emotive and behavioral symptoms that are precursors for later development of anxiety disorders, suicide risk and lowered self-esteem.

Purpose of the Study

The purpose of the present study was to examine the relationships between parental bonding and the development of adult psychopathology, specifically, anxiety disorders, self-esteem and risk of suicide in a sample of Lebanese adults; with a particular emphasis on investigating the applicability of research findings in the Arab world regarding parental bonding to the Lebanese context. In addition, as well the impact of religion on parental bonding and its effects on suicide risk, self-esteem and anxiety disorders will be considered. Parental bonding and its effects on psychopathology studies are essential given the severe lack of research in this domain in the Arab World.

Rationale of the Study

Most of the studies investigating parental bonding styles are being conducted in westernized counties (Ngai and Cheung, 2009). However, it has been shown that parenting is a

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practice guided by socialization processes and cultural values (Darling and Steinberg, 1993). Since Parker, Tupling and Brown's (1979) parental bonding model was constructed based on western samples, becomes critical to take into consideration whether this model will be applicable onto other countries as well.

Primarily, it is important to note that according to Hofstede (1983) cultural dimension, Lebanon scores 40 on collectivism, stating that Lebanon is a collectivistic country. Parenting style, which is considered to be the way parents socialize and raise their children (Spera, 2005) is a different construct from parental bonding, which is referred to as the primary attachment between the child and his caregivers (Cailian & Shihan, 2012). Although parenting styles and parental bonding are different, both include similar factors; for example, demandingness in the parenting style is comparable to over control in parental bonding, while responsiveness in parental styles is comparable to the care factor in parental bonding (Yterdal, 2016). Hence, this paves the way to take into consideration that the study conducted by Dwaire et al. (2006a) on 2,983 adolescent Arabs in eight Arab countries which examined the parenting styles prevalent in the Arab countries has found that the most prevalent parenting style among the collectivistic Arab countries was authoritarian one which reflects the low warmth, high control elements of the parenting bonding style. More specifically, the findings also pointed the not all the Arab countries had rigid authoritarian parental styles, but some countries specifically Lebanon although collectivistic included more flexible parenting styles which incorporated authoritative parenting styles that include high care and low on over control. Additionally, the findings of the study also significantly revealed that unlike the westernized cultures, Dawairi et al. (2006a) stated that parenting type which incorporates the high control and low care was not found to be detrimental to mental health among the Arab countries. Hence, it can be fathomed that the

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consequences of the parental behaviors might differ with different cultures (Hill, 1995; Saleh, 2014). It is essential to note that in Lebanon, few studies were conducted that investigated the association between parental styles and mental health.

Although Lebanon is a collectivistic country, it is considered as a more liberal and western-oriented country (Dwairi et al., 2006; Saleh, 2014). Therefore, it would be of worth to investigate the predictability of anxiety disorders, low self-esteem and risk of suicide from the early parental bonding style in the Lebanese context.

A study conducted by Dwairi et al. (2006b) revealed that the authoritarian parental style was not associated with the Arab youth's mental health including Lebanon. Another study conducted in Lebanon on the association between parenting style with an emphasis on the overprotection parenting factor and mental health revealed that perceived negative mental health scores were predicted by perceived parental overprotection scores (Saleh, 2014). Nevertheless, these two studies focused mainly on the parenting styles and they addressed mental health with no specific areas of focus. This is in contrast to the study at hand which focused on investigating the relationship between parental bonding dimensions and four specified mental health areas (1) anxiety disorders (2) self-esteem (3) risk of suicide (4) religion. In addition to that, parental bonding was also a main variable in a study conducted by Hamdoun (2015) in Lebanon; however, this study aimed to investigate the relationship between media and parental bonding with body image, which is in contrast to the present study's aim which incorporated investigating the role of parental bonding in predicting anxiety disorders, self-esteem, risk of suicide and religion.

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Since Lebanon is a diverse religious country (Ghandour, Karam & Maalouf, 2009), a base for three religions mainly Muslims, Christians and Druze (Abdo-Ayyash, 2001) and consists of a population that emphasizes on religious beliefs and values as a major part of their lives (Moaddel, 2008), then it seems desirable from the perspective of the present research questions to examine the role of religion on the type of the parental bonding style exhibited by the Lebanese parents and how this might be related to the prediction of anxiety disorders, self-esteem and suicide risk. To the best to the best of my knowledge, no studies in Lebanon were conducted on the role of parent's religion on the relationship between one's anxiety, self-esteem and suicide risk and their parental bonding styles.

Background of the Study

The following section aims to provide an explanation behind the association between the parental bonding dimensions and each of anxiety disorder, suicide risk and lowered self-esteem. The research background behind the association between parental bonding and each of anxiety disorders, self-esteem and suicide risk is well-documented in the research literature. The relationship between each of anxiety disorders, suicide risk and self-esteem was empirically investigated in various studies. However, targeting simultaneously anxiety disorders, suicide risk and self-esteem and their association with parental bonding has not been seriously researched. More specifically, the increase in the prevalence of anxiety disorders in the Arab world (Tanios, Karam, karam and Abou-Saleh, 2008) and particularly in Lebanon (karam et al., 2008) should highlight the need for studies examining anxiety disorders in Lebanon. Also, Suicide's prevalence in Lebanon has become noticeable (Mafroud et al., 2011) and the notion that lowered self-esteem plays a role in increasing the vulnerability for the onset of psychiatric disorders such as anxiety (Silverstone and Salsali, 2003) is evident. Since a relationship exists between adverse

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parental bonding and each of anxiety, suicide risk and lowered self-esteem (Lima et al., 2013) and since developments in the prevalence rates of anxiety and suicide risk and that lowered self-esteem plays a critical role value in promoting psychiatric symptoms, then investigating the above variables taken together in one research appears to be the next logical step. However, one should never forget that parenting is a practice guided by socialization and cultural values (Darling and Steinberg, 1993) and it is found to play a significant role in influencing parental cognitions and beliefs that in turn shape the child-rearing practices (Borenstein, 2016). Additionally, since the parent's religion was also found to have an impact on parental bonding (Wilcox, 2002; Mahoney, Pargament, Murray-Swank, & Murray-Swank, 2003; Lane, 2015; Vermeer, 2011), then adding religion to the above list of variables becomes desirable.

Anxiety Disorders and Parental Bonding

A number of empirical studies have examined the relationship between parental bonding and anxiety disorders specifically PTSD, panic disorder or obsessive compulsive disorder. A study conducted by Seganfredo et al. (2009), pointed to the existence of an association between the maternal overprotection and panic disorder in men and between father overprotection and panic disorder in women. A relationship was also manifested between low parental care and generalized fear (Meites et al., 2012).

The association between parental bonding and anxiety disorders has been documented through numerous studies in the literature. The studies showed how anxiety symptoms are mainly associated with increased overprotection and control and decreased parental care. Hence, based on the above it can be hypothesized that adverse parental bonding acts as a risk factor for the emergence of anxiety disorders, while optimal parenting (high care and low control) acts as a protective factor against the anxiety disorders.

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Self-esteem and Parental Bonding

It has been found that negative parenting practices which is manifested in negative parental bonding such as high level of parental control and a low level of autonomy and warmth, are associated with low self-esteem later in adulthood (Milvesky, Schlechter, Netter and keehn, 2007).

Based on the above research which mainly documented how inadequate parental care and excess control lead to lowered self-esteem, it can be hypothesized that adverse parental bonding is a risk factor for diminishing one's self-esteem, while optimal parental bonding is a protective factor for self-esteem since a positive relationship exists between parental care and self-esteem (Ngai & Cheung, 2009).

Suicide and Parental Bonding

A meta-analysis of 12 studies using databases Medline, PubMed, PsychINFO, PsychLit, and Google Scholar that investigated the association between parental bonding and suicide ideation and attempt has found an association between suicide ideation and suicide attempts with low levels of parental care and high levels of parental overprotection (Goschin, Briggs, Blanco-Lutzen, Cohen, & Galynker, 2013). The result of the meta-analysis indicate that mainly affectionless control in both parents emerges as the parenting style most strongly associated with suicidal behavior (Goschin et al., 2013).

Consequently, the information presented above can be summoned into the understanding that parental bonding that is characterize by low care and high control constitute futile grounds for increasing the risk of suicide in their children during adulthood. Therefore, it becomes feasible for the present study to ask: are high levels of overprotection and low levels of care associated with increased risk of suicide?

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Cross-cultural Perspective on Parental Bonding and Psychopathology

As it has been previously asserted that the consequences of the parental behaviors differ with different cultures (Hill, 1995; Saleh, 2014). For example, contrary to the westernized findings, in the Asian American culture, excessive parental control is considered a fundamental aspect in parenting as this control insures the cultural elements of interdependence and harmony (Chang, 2007). Same is applicable to the Chinese culture, where Chao (1994) emphasized that contrary to the west, Chinese parents exert more control as a degree of cultural absorption of parental authority.

Cross-cultural psychologists often study the differences and similarities between individualistic cultures and collectivist cultures and its effect on mental health. Individualistic cultures are those that stress the needs of the individual over the needs of the group as a whole. Whereby collectivism stresses the importance of the group and social cooperation. Hofstede (1980) and Hsu (1981, 1983, 1985), argued that the private self-emphasized more in individualistic cultures such as North America or Europe than in collectivistic cultures such as those of East Asia and Middle Eastern or Arabian countries. However, the collective self is emphasized more in collectivistic culture than in individualistic cultures. (Darwish, Huber, 2003). According to Hofstede (1983) cultural dimension, Lebanon scores 40 on collectivism, stating that Lebanon is a collectivistic country.

Hence, investigating the association between early parental bonding and adult psychiatric symptoms in a specific cultural milieu will provide a further understanding on the existing of such an association. More importantly, the importance of investigating this relationship in the present study is that because Lebanon a country high on collectivism (Hofstede, 1987) but it is also considered as a more liberal and western-oriented country (Dwairi et al., 2006; Saleh, 2014)

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and because it was found that the most prevalent parenting style among the collectivistic Arab countries is the authoritarian one (Dwairy et al., 2006b), it is of significance to investigate the association of parental bonding dimensions with each of anxiety disorders, lowered self-esteem and suicide risk in a cultural context that deems to be propagating a mix of parental bonding dimensions of lower care and heightened control as well as westernized values that promote mainly heightened care and low control in the parenting bonding (Dwairy et al., 2006a; Saleh, 2014).

Religion and Parental Bonding

As stated previously, the way parents raise their children is influenced by parental religiosity (Lane, 2015; Vermeer, 2011). Religiosity is defined as a strong belief in God and engagement in religious practice (Ghandour et al., 2009). Nevertheless, research has come to show that religious parents integrate both authoritative and authoritarian styles as they balance their high levels of control, boundary and strict obedience with high levels of care, warmth and emotional involvement (Horwath & Lees, 2010; Wilcox, 2002); such combination with the inclusion of the parental care elements acts as a ward off for the potential negative influence of the controlling parental style (Armet, 2009). This is supported by a study conducted by Letiecq (2007) which found that religious fathers were more likely to engage in authoritative parenting styles with the authoritative parenting style representing high scores on both overprotection and care dimension (Parker et al., 1979).

Additionally, research has emphasized that the way parents raise their children was also found to be influenced by parental religiosity (Lane, 2015; Vermeer, 2011). Since Lebanon is a diverse religious country (Ghandour, Karam & Maalouf, 2009), a base for three religions mainly

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Muslims, Christians and Druze (Abdo-Ayyash, 2001) and consists of a population that emphasizes religious beliefs and values as a major part of their lives (Moaddel, 2008), it was essential to investigate the role of religion on the type of the parental bonding style exhibited by the Lebanese parents and how this might be related to anxiety disorders, self-esteem and suicide risk. To the best of the knowledge of the present researches, no studies in Lebanon were conducted regarding the effect of relationship between parent's religion and parental bonding styles.

However, the influence of religiosity on parents' parental bonding is mainly impacted by the type of the religion held by the parents. More precisely, religion promotes individuals such as parents to possess a culture that shapes their values and behaviors towards family members and influences their dimensions of parenting (Wilcox, 2002; Mahoney, Pargament, Murray-Swank, & Murray-Swank, 2003; Lane, 2015; Vermeer, 2011). For instance, Christian parents are strongly instructed to provide mainly care to their children (Seegobin, 2014), while parental bonding founded on Islamic values advocates the parental control dimension (Franceschelli & O'Brien, 2014). Similarly, given that Druses are descendants from Muslim Arabs and adhere rigidly to the transmission of their values and rules as well as their insistence for inner group marriage (Dwairy, 2006), their parental bonding is mainly characterized by the control dimension. Such differences reveal that different religions probably advocate different parental bonding dimensions.

In summary, it was hypothesized that different religions are associated with differential parental bonding dimensions.

Significance of the Study

Theoretically, the study hopes to shed light over the parental bonding's role in the onset of mental disorders particularly anxiety disorders, lowered self-esteem and risk of suicide particularly in the Lebanese context. More specifically, the impact of parental care-rejection factor of parental bonding was found to possess a robust effect on the individual's mental health in most of the countries and cultures (Dwairy et al., 2006a); thus, indicating that the parental care (or parental rejection) is considered a universally pivotal element in influencing the mental health of the individuals (Dwairy et al., 2006b).

It is expected that the present study would add to the knowledge on the predictability of anxiety disorders, lowered self-esteem and risk of suicide from parental practices as well as providing insight into the treatment of the attendant psychological disorders. In addition to the theoretical and the research benefit, this study is of clinical practical benefit as well. Primarily, parents used to be regarded as a cause or a contributing factor of their child's problems, yet in recent studies, parents are now viewed as collaborators in resolving their child's problems (Osher, 2001). Therefore, the influence of parents on children and adolescents' mental health needs to be addressed and studied further in order to ensure a more multi systematic approach in treating this group (Osher, 2001). The study may possibly provide basis for the approach to treatment directed from the early family environment and insight into therapeutic understanding of the psychiatric symptoms' connected with early bonding (Ambruster and Witherington, 2016). In addition, the awareness that early parental bonding plays a role in the onset of psychiatric symptoms suggests the need to work on a public-health policy which promotes healthy parent-child relationship education and training programs for the acquisition of proper parental skills that will advent the later development of negative mental-health outcomes (Lima et al., 2010).

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Furthermore, the study can shed light over the role of culture in influencing the intricate relationship between parental bonding and psychiatric symptoms; thus, deepening the understanding of such a relationship. The study can also imply change in the focus of Lebanese values towards greater emphasis on better parental care and greater child psychological autonomy, which are features that are commonly experienced in the west (Saleh, 2014). This allows for the understanding that the maintenance of specified parental bonding dimensions are dependent upon cultural values; thus, allowing such information to be used in the awareness process and in further cross-cultural studies for more research and knowledge.

In addition to that and as already detailed, Lebanon is a base for religions such as Muslims and Christians. In addition, it is a population that emphasizes religious beliefs and values which implies that investigating the role of religion on parental bonding can clarify the impact of parents' religion on their maintenance of specified parental bonding dimensions and the notion that different religions might stress different parental bonding dimensions. In addition, the study can shed light on the notion that religion can be seen as an equivalent to culture is an important factor that needs to be taken into consideration when dealing with parent-child relationship.

Statement of the Problem

Therefore, the associations between parental bonding and each of anxiety disorders, suicide risk, low self-esteem and parents' religion is well documented in the literature and provides the basis for constructing a set of hypotheses for the present study:

Hypothesis 1 (H1). There is a positive correlation between parental control ((a) mother control, (b) father control) and suicide risk.

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Hypothesis 2 (H2). There is a negative correlation between parental care ((a) mother care, (b) father care) and suicide risk.

Hypothesis 3(H3). There is a negative correlation between parental care ((a) mother care, (b) father care) and anxiety.

Hypothesis 4 (H4). There is a positive correlation between parental control ((a) mother control, (b) father control) and anxiety.

Hypothesis 5 (H5). There is a positive correlation between parental care ((a) mother care, (b) father care) and self-esteem.

Hypothesis 6 (H6). There is a negative correlation between parental control ((a) mother control and (b) father control) and self-esteem.

Hypothesis 7(H7). Muslim mothers exhibit higher levels of parental control than Christian mothers.

Hypothesis 8(H8). Muslim fathers exhibit higher levels of parental control than Christian fathers.

Hypothesis 9 (H9). Christian mothers exhibit higher levels of parental care than Muslim mothers.

Hypothesis 10 (H10). Christian fathers exhibit higher levels of parental care than Muslim fathers.

The hypotheses will be tested using correlation methods and multiple regression analysis.

Overview of the Methodology

This study was a quantitative one applying correlational research methods, t-test, and regression to examine the proposed hypotheses. A purposeful convenient sample of 200 Lebanese males and female young adults above age 18 residing in Beirut region were assessed through self-report measures. The survey package included a demographics questionnaire, in addition to four psychological scales: The Parental Bonding Instrument (PBI), Beck anxiety scale (BAI), Suicide

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Behaviors Questionnaire-Revised (SBQ-R) and Rosenberg Self-esteem Scale. The data were analyzed using the IBM SPSS Statistics Program Version 20.

Limitations of the Study

A number of limitations emerged in this study such as the exclusion of the Lebanese participants who do not speak English, hence, this might have created a restriction of scores and threatened the external validity especially that the study aimed to investigate the associations among the variables in the Lebanese cultural setting where Arabic is the official Language (Ayyash-Abdo, 2001). In addition, the parental bonding scale in the study maintained a low reliability; this further restricted the reliability of the scores and affected the results. Moreover, the generalizability of the results might have also been affected by the collection of data only from the Beirut region; this region is considered to be mainly representative of a higher degree of westernization and urbanization in comparison to Lebanon at large (Saleh, 2014; Dwairy et al., 2006a).

Definition of Key Terms

Parental Bonding: is the formation of a mutual emotional and psychological closeness between parents (or primary caregivers) and their newborn child. Babies usually bond with their parents in the minutes, hours, or days following birth (Canetti, Bachar, & Shalev, A. Y,1997).

Attachment: the term 'attachment' is used to indicate the emotional, cognitive, and behavioral processes implicated in the development and maintenance of intimate social bonds (Picardi, Caroppo, Fabi, Proietti, Gennaro , Meldolesi Martinotti, 2013).

Parenting Styles: is "the emotional climate in which parents raise their children" (Darling and Steinberg, 1993).

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Parenting Practices: are defined as specific behaviors that parents use to socialize their children (Darling and Steinberg, 1993).

Care: The parental bonding subscale 'care' involves one side defined by affection, emotional warmth, closeness, empathy, and the absence of indifference, emotional coldness, and neglect (Parker, Tupling, Brown, 1979).

Overprotection, Protection, Control: Those words are used interchangeably in the literature. The parental bonding subscale 'overprotection' or 'protection' or 'control', has one side defined by overprotection, intrusion, control, infantilizing, excessive contact, and prevention of independent behavior, and the other side defined by items that suggest allowance of independence and autonomy (Parker, Tupling, Brown, 1979).

Anxiety: Trait anxiety is a personal characteristic and encompasses the emotional responses to pervasive fearful cognitions (Picardi, Caroppo, Fabi, Proietti, Gennaro, Meldolesi Martinotti, 2013).

Risk of Suicide: Suicidal Ideations is referred to as the desire for suicide, whereas suicidal attempts is considered as the acquired capability of suicide (Huang et al., , 2016).

Psychopathology: The traditional view that mental disorders are distinct, categorical syndromes has been challenged by evidence that many disorders are highly comorbid and exist on a continuum. Psychopathology diagnoses and symptoms may be best modeled with a bifactor (or general-specific) model, which includes (a) a general factor capturing the common variance shared across all symptoms, and (b) specific factors reflecting the additional shared variance among symptoms, be they internalizing and externalizing factors (Castellanos –Ryan et al., 2016)

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Self-esteem: is a positive or negative attitude toward an object usually referring to the self (Rosenberg, 1965).

Adverse Parental Bonding: parenting that involves adverse experiences during childhood, such as abuse or neglect. (Anno et al., 2015)

Affectionless Control: is a parental bonding quadrant characterized by high protection and low care (Parker, Tupling, Brown, 1979).

Affectionate Constraint: is a parental bonding quadrant characterized by high protection and high care (Parker, Tupling, Brown, 1979).

Optimal Parenting: is a parental bonding quadrant characterized by low protection and high care (Parker, Tupling, Brown, 1979).

Neglectful Parenting: is a parental bonding quadrant characterized by low protection and low care (Parker, Tupling, Brown, 1979).

Religiosity: is defined as a strong belief in God and engagement in religious practice (Ghandour et al., 2009).

Chapter 2

Literature Review

The present study examines specifically the inter relationships between childhood parental bonding and adulthood anxiety disorders, self-esteem and risk of suicide and religion among Lebanese adults.

The early parent–child relationship has been associated with numerous aspects of behavior and development (Cassidy & Shaver, 2008). Parental bonding is used to retrospectively assess received parenting along a number of parenting dimensions which are care and overprotection. Studies have revealed numerous causes for the onset of psychiatric symptoms precipitated mainly by childhood adverse parental bonding (Bahreini, Akaberian, Ghodsbin, Yazdankhah, Fard and Baghmollaei, 2011; Lima, Mallo and Mari, 2010).

Poor parental bonding forms a risk factor for anxiety disorders (Ambruster and Witherington, 2016; Lima et al., 2011; Dekel and Solomon, 2015) which are considered as the most prevalent mental disorder category that affects individuals who suffer from the various types of this disorder (Picardi et al., 2013). Epidemiological studies conducted in the Arab countries pointed to the high prevalence of anxiety disorders in the region (Tanios, Karam, karam and Abou-Saleh, 2008). Published data on national lifetime prevalence of mental disorders in Lebanon revealed that Anxiety (16.7%) ranks highest (16.7%) of all mental disorders (karam et al., 2008). Besides that, suicide is also considered a serious worldwide problem (Yrelda, 2016). Globally, suicide was considered as the second leading cause of death in 2012 for those between 15-29 after road injury (World Health Organization). Suicide ideation in Lebanon is noticeable with around 16% of Lebanese adolescents who have thought of committing suicide once or more during their life time (Mafroud et al., 2011). In general, it has

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been shown that individuals with psychiatric disorders suffer from a lowered self-esteem with this lowered self-esteem plays a significant role in increasing the vulnerability for the onset of those psychiatric disorders (Silverstone and Salsali, 2003).

With prior literature indicating that affectionless control (High control, low care) forms a risk factor for anxiety disorders (Ambruster and Witherington, 2016; Lima et al., 2011; Dekel and Solomon, 2015) and suicide attempt (Heydari et al., 2013; Adam et al, 2016;Huang et al., 2016; Briggs, Goschin and Lutzen, 2013), and with lowered self-esteem resulting from the exposure to an adverse parental bonding experience during childhood (Ngai and Cheung, 2009; Milvesky et al., 2007; Shimura et al.,2017; Bahreini et al., 2011).

Prior literature indicates a relationship between parental bonding and psychiatric symptoms (Bahreini, Akaberian, Ghodsbin, Yazdankhah, Fard and Baghmollaei, 2011; Lima, Mallo and Mari, 2010). Therefore, it would be of vital significance to investigate the predictability of anxiety disorders, lowered self-esteem and risk of suicide from child-parental bonding perspective among Lebanese adults.

Association between Parental Bonding and Psychopathology

The way child- parental bonding styles influence later mental health can be observed in several ways. Primarily, according to Bowlby's (1977) attachment theory, during infancy, parent-child closeness is maintained through an attachment system which incorporates a set of emotive and behavioral responses (Lima et al., 2011). These early interactions provide the foundation for the future development of healthy interpersonal relationships, cognitive abilities and emotion-regulation capacities (Lima et al., 2011). Hence, if secure attachment was maintained between the parent and the infant, the infant will be offered the capacity for emotion regulation as well as the capacity for self-perception and the perception of others which helps in

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managing positive and adaptive relationship with others (Lima et al., 2011; Ngai and Cheung, 2009). Such secure attachment is obtained particularly when the parent provides the child with care, sensitivity and responsiveness (Ngai and Cheung., 2009); elements that reflect the care dimension of the parental bonding styles (parker et al., 1979). On the other hand, if an insecure attachment style is obtained between the infant and the caregiver, this tends to increase the child's risk for the later problems in self-regulation and emotional difficulties that may lead to future psychopathological conflicts (Ngai and Chueng, 2009). Such elements of the insecure attachment can derive from parental over control (Bowlby, 1988; Parker et al., 1979).

Drawing from Bowlby's (1977) attachment theory, the occurrence of psychiatric symptoms in adulthood can result from a dysfunctional mental representation of an impaired parental bonding experiences manifested through an insecure or a maladaptive attachment style (Lima et al., 2011). Consequently, it is essential to point to the parental bonding style's vital role in helping to regulate the child-environment interactions and aiding in shaping the children's social adaptation (Bornstein, 2016). For instance, Piaget (1965) and a number of psychoanalytic theories have highlighted the significance of providing independence rather than control adolescents so as to allow them to disengage from the family (Erikson, 1995; Marcia, 1980). Additionally, parental support reflecting the care dimension plays a significant role in enhancing self-confidence and self-regulation throughout development (Baumrind, 1987). It is noteworthy that affectionate constraint (high care, high control) parental dimension, despite the presence of heightened care is likely to lead to the child's over sensitivity and dependency (Shibata et al., 2016).

Numerous studies have particularly pointed to the association between low parental care and high parental control bonding style with poor mental illness (Dekel and Solomon, 2015). A

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recent study conducted on a sample of Lebanese university students has found that perceived parental overprotection was positively correlated with perceived negative mental health (Saleh, 2014). Specifically, previous research revealed that high control and low care in parental bonding were associated with various psychiatric conditions among which are anxiety disorders (Ambruster and Witherington, 2016; Lima et al., 2011; Dekel and Solomon, 2015) and suicidal thought and behavior (Freudenstein et al., 2011; Yterdal, 2016; Heider, 2000). Ambruster and Witherington found significant correlations between early bonding memories and different anxiety types. Two types of anxiety (post-traumatic and social) were negatively associated with the care dimension of bonding and positively associated with the overprotection dimension. Dysfunctional parental bonding was also proved to play a critical role in affecting the internal assets such as the self-esteem of young adults with poor parental bonding leading to low levels of self-esteem (Bahreini et al., 2011; Ngai and Cheung., 2009; Passanisi, Gensabella and Pirrone, 2015).

As previously mentioned, current available data indicate that parent–child relationship play a role in preventing or promoting the development of psychiatric symptoms. Additionally, it has been found that adverse parental bonding acts as a potential risk factor for the predisposition of adult psychopathology. Despite their methodological limitations such as small sample sizes and inadequate follow-up periods, results have shown that early parental bonding may play an important role either as a risk or protection factor for the development of psychiatric symptoms in adulthood. Affective enhancement and encouragement of autonomy seem to exert a protective effect, whereas emotional neglect and overprotection seem to constitute risk factors for the development of psychiatric symptoms in adulthood. (Lima, Mello, Mari, 2010). Therefore, this study is essential in order to identify risk factors and protective factors of psychopathology related

to parental bonding.

Anxiety Disorders and Parental Bonding

As discussed previously, poor parental bonding forms a risk factor for anxiety disorders. The relationship between adverse parental bonding and anxiety symptoms can be explained through the following. Primarily, the majority of the research which investigates the role of parenting in the maintenance of anxiety has pointed to the parental bonding concepts of care and control as the factors that play a role in causing anxiety (Gallagher and Cartwright-Hatton, 2008). As defined previously, the care dimension is referenced to the warmth and acceptance that parents provide their children with, while the control dimension is referenced to the limitation that parents impose upon their children and the interference in their children's activities which the children can do on their own (Gallagher and Cartwright-Hatton, 2008).

Parental Bonding in relation to Anxiety through Attachment Theory. On the basis of the attachment literature, insecure attachment, which mainly consists of the combination of parental over involvement, inconsistent caregiving and rejection i.e. parental bonding elements (Parker et al., 1979), is a leading factor in causing anxiety (Bowlby, 1982).

The association between parental bonding and anxiety through the attachment elements can be explained in the following way. Primarily, from the attachment theory perspective, children, considering their parents as a secure base, reach out to them to meet their basic needs. However, the way parents respond to their children, influences the development of their internal working model which is a mental representation reflecting their understanding of the world, self and others (Bowlby, 1982; Bowlby, 1977). Hence, the early interactions based on the attachment system maintained between the child and the parent will then allow the child to foster a set of emotive and behavioral responses that provide the foundation for the future development of

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healthy interpersonal relationships, cognitive abilities and emotion-regulation capacities (Lima et al., 2011).

For example, when parents are responsive, caring and nurturing, a secure attachment is formed between the child and the parent; this leads to the emergence of an internal working model that allows the child to feel that his/her needs will be met and that the world is a safe place (Bowlby, 1982; Bowlby, 1977). With the formation of this secure attachment between the parent and the child, the child will be offered the capacity for emotion regulation as well as the capacity for self-perception and the perception of others; thus, helping the child in later adulthood with the capacity in managing positive and adaptive relationship with others (Lima et al., 2011; Ngai and Cheung, 2009). In contrast, when a parent responds to the child's needs in rejection, an insecure attachment is formed between the child and the parent which in turn leads to the child's formation of a dysfunctional mental representation depicting the world as an unsafe place where there is uncertainty in the needs being met (Bowlby, 1982; Bowlby 1977). Hence, it can be concluded that the insecure attachment style which is manifested through dysfunctional parental bonding impairs the maintenance of the child's emotion regulation capacity (Lima et al., 2011; Ngai and Chueng, 2009) as well as increases his/her risk of diminished aptitude of self-regulation (Bowlby, 1982; Bowlby, 1977; Ngai and Chueng, 2009). This constitutes a forerunner for the formation of anxiety (Picardi et al., 2013). In fact, the exposure to stressful experiences in the presence of insecure attachment and dysfunctional parenting bonding coupled with poor emotion regulation strategies during childhood impairs the child's detection of fear-related cues and anxiety such deficits many persist into adulthood (Picardi et al., 2013).

The insecure attachment and its consequences are represented by low care or absence of care in parental bonding. All in all, the insecure attachment incorporating elements of the

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parental bonding i.e. over involvement, inconsistent caregiving and rejection (Parker et al., 1979) plays a role in advocating emotional, cognitive and social difficulties which predispose the child for the future development of psychopathological outcomes particularly anxiety disorders (Bowlby, 1982; Bowlby, 1977; Ngai and Chueng, 2009; Gallagher and Cartwright-Hatton, 2008). Therefore, the importance of exploring parental bonding while stressing the role of the component of care in establishing a secure attachment.

Parental Bonding and Anxiety Disorders Empirical Evidence. A large body of literature investigated the association between parental bonding and anxiety disorders. To start with, a study conducted by Dekel and Solomon (2015) showed that higher maternal control was associated with higher Post Traumatic Stress Disorder (PTSD) symptoms in a sample of Israeli adolescents following the 2006 Lebanon war. Also, a study conducted by Seganfredo et al. (2009), pointed to the existence of an association between maternal overprotection and panic disorder in men and between paternal overprotection and panic disorder in women. Additionally, Picardi et al. (2013) further provided evidence to the existing association between parental bonding and anxiety in a clinical setting. In their study, Picardi et al, (2013) looked at the parental bonding of clinically anxious individuals and found that these individuals reported significantly lower scores on maternal care in comparison to the non-clinical patients as well as the patients with drug resistant epilepsy. Furthermore, a study conducted by Saleh (2014) using a sample of Lebanese college students from the American University of Beirut has also found a positive relationship between parental overprotection and negative mental health including generalized anxiety; thus, indicating that individuals who identify their parents as being overprotective as more likely to suffer from generalized anxiety. Further evidence for such a finding was also obtained by a study conducted by Liss, Timmel, Baxley and Killinsworth

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(2005) who similarly found that parental care and overprotection were related to anxiety in a non-clinical college sample.

A study conducted by Yabro, Mahaffey, Abramowitz, and Kashdan (2013) indicated the existence of a significant association between obsessive beliefs and affectionless and neglectful parenting. In support to Yabro et al.'s (2013) study, Ambruster and Witherington (2016) also pointed to the existence of numerous studies that have shown that people with panic disorder or obsessive compulsive disorder perceived their parental bonding style to be incorporating the affectionless control style. In fact, the authors indicated in their own study that high scores on the parental bonding care dimension were negatively correlated with higher scores on post-trauma and social anxiety symptoms and higher scores on the parental bonding overprotection dimension were positively correlated with higher scores on post-trauma and social anxiety symptoms. However, neither the care nor the overprotection dimension of bonding did significantly correlate with the obsessive-compulsive symptoms, panic symptoms or generalized anxiety symptoms. Ambruster and Witherington (2016) explained the results by indicating that individuals with the anxiety symptoms of obsessive-compulsive disorder, panic and generalized anxiety symptoms might have engaged in less remembering of their early adverse bonding experiences with their parents as a self-soothing mechanism. In other words, these individuals might have been unconsciously striving to neutralize their calming states by remembering their early parental relationships more favorably (Ambruster and Witherington, 2016).

Besides, a study conducted by Ghafoori, Hierholzer, Howsepian, and Boardman (2008), offered similar contradictory results with regard to the relationship between parental care, overprotection and anxiety. They investigated the role of adult attachment, parental bonding and divine love in adjustment to trauma experienced in the military and revealed that no significant

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relationship was obtained between current PTSD symptoms and early childhood bonding memories. This finding was explained by the notion that perceived parental care acts as a moderator to the significant correlation existing between adult attachment style and the severity of PTSD whereby the parental care factor is negatively correlated with insecure attachment and the insecure attachment is positively correlated with PTSD (Ghafoori et al., 2008).

Hence, based on the above body literature it can be concluded that adverse parental bonding (low care, high control; low care, low control and high care, high control) seems to be a risk factor for the emergence of anxiety disorders, while optimal parenting (high care and low control) acts as a protective factor against the anxiety disorders.

Almost all of the above research studies (with the exception of two) relied on college student samples. The disadvantage of using college students is that college students are hardly representative of the whole population; rendering the results ungeneralizable to the whole population. Taking into consideration the above limitation, the study at hand addressed the sample issue by including a more diverse array of individuals incorporating young adults whose ages are above 18 and not solely university students. This generates a sample more representative of the population.

Self-esteem and Parental bonding

The relationship between self-esteem and parental bonding can also be explained in that the parent-child bonding provides a safe and a secure basis for the child to investigate and control his/her environment (Bahreini et al., 2012). Based on the attachment theory, when the child is exposed to a caring and supporting parental bond, the cognitive-emotional facets of this secure bonding will influence the mental and emotional capabilities of the child throughout his/her development (Bahreini et al., 2012); thus, enhancing in this case the child's self-

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confidence and self-regulation throughout the later years (Baumrind, 1987). However, when the child is exposed to inconsistent and unsupportive parenting, the child will tend to develop an internal working model that predisposes one to interpret events negatively (Morly & Morgan, 2011) which leads to the individual's lower self-esteem and lower capabilities to handle stressful situations (Bowlby, 1977). This will lead subsequently the individual to view any failure as a result of his/her inadequacy and incompetency rather than ascribing the failures to external challenging events (Burningham, 2016; Bahreini et al., 2012). This is in line with the contention of cognitive behavioral theories regarding children who internalize negative cognitive schema about themselves as this being due to their exposure to negative child-rearing experiences (Young, 1990).

Additionally, it has been indicated that the parental bonding "control" dimension which is reflected in parental practices that induce intrusiveness and control over their children prevent the child from developing an autonomous self (Ngai and Cheung, 2009). The level of autonomy satisfaction is lowered when parents' high levels of control forges in the children a feeling that they are forced to enroll in activities that do not exhibit their own values or their own inclinations (Sonens and Vansteekiste, 2010). Since autonomy is an element incorporated into the self-esteem (Hodgins, Brown and Carven, 2007), the aforementioned consequences of paternal control play a role in lowering the self-esteem levels as well. It should be clear by now that inconsistent, controlling and unsupportive parenting incorporating the basic elements of parental bonding (Parker et al., 1977) possesses the capability to lower one's self-esteem.

Parental Bonding and Self-esteem Empirical Evidence. A study conducted by Milvesky, Schlechter, Netter and keehn (2007) revealed in a sample of 272 high school adolescents that negative parenting practices which manifest in negative parental bonding

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including high level of parental control and a low level of autonomy and warmth, are associated with low self-esteem later in adulthood. In the same vein, Bahreini et al. (2011) found in their study that the parental bonding style incorporating inadequate care and excess control lead to the lowering of self-esteem in adulthood. Similarly, a study conducted by Ngai and Cheung (2009) pointed to the significant positive relationship existing between parental care and self-esteem and a significant negative relationship between parental control and self-esteem.

Another study conducted by Shimura, Takaesu, Inoue and Nakai (2017) investigated the association between parental bonding and self-esteem by studying the effect of childhood parental bonding on adulthood parental anxiety as mediated by self-esteem in a sample of adult volunteers. The results of the study revealed that trait anxiety decreased by parental care and increased by parental overprotection through self-esteem (Shimura et al., 2017). This finding indicates that parental bonding affects self-esteem and self-esteem in turn affects trait anxiety; thus, indicating that self-esteem is closely related to parental bonding. Additionally, a study conducted by Hall et al. (2004) aimed at investigating the association between the parental bonding components (parental care and protection) and overall mental health in a volunteer sample of 246 college women. Lower self-esteem, a variable of the study, was found to be the result of high overprotection.

Further evidence for the association between parental bonding and self-esteem was reported in a study that aimed to investigate the role of adoptive status, parental bonding and identity in predicting self-esteem in a sample of adopted and non-adopted volunteer adults. The findings of this study revealed that high parental over protection and lower parental care predicted lower levels of self-esteem (Pasmore, Fogarty, Bourke & baker-Evans, 2005). More specifically, it was found that parental bonding explained more variance with regard to self-esteem than adoptive

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status, but the identity style turned out to be the strongest predictor. A study conducted by Verrocchio, Marchetti and Fulcheri (2015) obtained similar results. They found that higher care scores and lower overprotection scores were associated with higher self-esteem scores in a sample of Italian adults whose parents had been separated or divorced. Such finding has further supported the notion that the individual's perception of a parent-child bond that is characterized by affection, emotional warmth, closeness and the advancement of independence and autonomy corresponds with a positive self-concept i.e. high self-esteem (Verrocchio, Marchetti and Fulcheri, 2015). These results are consistent with the hypothesis proposed by the study concerning the relationship between parental bonding and self-esteem. Therefore, this study relates to the current study as it explores the theory that children exposed to dysfunctional parenting, and with low self-esteem are at risk for their long-term psychological functioning.

Based on the above, it can be guessed that adverse parental bonding, mainly the high control and low care elements, constitute a risk factor for diminishing one's self-esteem, while optimal parental bonding, mainly high care and low overprotection, make-up a protective factor for self-esteem.

Suicide and Parental Bonding

It is contended that the onset of suicidality in adulthood is triggered by the exposure to stressful life events (Heider, 2000). The skills that one possesses to ward off suicide risk is associated with positive experiences of the early child-parent bonding; indicating that poor parental bonding plays a critical role in hindering the development of skills that bolsters one's resiliency and the capacity to handle stressful situations (Heider, 2000).

Factors influencing relationship between Suicide and Parental Bonding. Primarily, parental affection (low parental care) is considered to play a role in accentuating the probability

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of engaging in suicide behaviors because low parental care play instills in the individual a feeling of lack of belongingness and burdensomeness; such sensations form a risk factor for the engagement in suicide thoughts (Safer et al., 2015). High parental control might also act as a risk factor for suicide because heightened parental control might have adverse effect on acquiring developmental strengths such as problem solving skills (Matheson et al., 2005). Hence, when the individual comes to suffer some developmental deficiencies like impaired problem solving skills, the individual will be less capable to develop adaptive solutions to his/her problems; thus, allowing the one to act out on their suicidal thoughts (Safer et al., 2015).

Additionally, parental control is also understood to be related to suicide attempts since parental overprotection causes frustration particularly during the adolescent period as adolescents struggle to gain independence and autonomy (Yterdal, 2016). Severe parental control may incite the individual to violence and may also lead to interpersonal conflicts with the parent (Yterdal, 2016). Additionally, high control and low care of the authoritarian parental style are associated with anxiety sensitivity which is a risk factor of suicide (Timpano, Carbonella, Keough, Abramowitz and Schmidt, 2015). It has also been reported that psychological control reflected by parental control may give rise to the child feeling of hopelessness which is also a factor of suicide risk (Li, Li, Wang & Bao, 2001; Yterdal, 2016).

Furthermore, low control is also found to be a risk factor for suicide (Yterdal, 2016) as under-controlled environments can promote impulsivity in the children, and thus, hinder their ability to learn emotion regulation tendencies (Barber, 1996). As a result, with individuals possessing poor impulse control abilities and weak emotion regulation capabilities, the suicide risk will be accentuated (Barber, 1996). The same applies to neglectful parenting, for it hinders the individuals from acquiring proper self-enhancing attributions systems causing these

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individuals to develop dysfunctional attribution styles ending up misattributing outcomes to external factors rather to their own capabilities. Hence, with these risk factors of low levels of self-esteem and alleviated self-doubt, the risk of suicide would most likely be heightened (Aunola et al., 2000; Glasgow et al., 1997).

It can be concluded that each of the high care or low care and high control or low control dimensions of parental bonding all seems to impact on suicide in later adulthood. The purpose of this study in part is to investigate the above associations.

Parental Bonding and Suicide Empirical Evidence. An innumerable number of studies has investigated the relationship between parental bonding and suicide. To start with, a study conducted by Hsu, Chen and Lung (2013) revealed that parental bonding in comparison to mental health variables, had the strongest direct influence on the self-harm behavior of a sample of patients.

In another study that investigated the relationship between parenting style and suicidal ideation and attempts, it was revealed that affectionless control (low care and high control) in the PBI quadrant doubled the risk of suicidal thoughts (Huang & Tzeng, 2016). In the same vein, a study conducted by Dale, Power, Kane, Stewart and Murray (2010) indicated that repetitive suicidal behavior was associated with low levels of parental care and high level of parental control. A meta-analysis of 12 studies and has found an association between suicide ideation and suicide attempts with low levels of parental care and high levels of parental overprotection contributing to such effects (Goschin, Briggs, Blanco-Lutzen, Cohen, & Galynker, 2013). In fact, the results mainly emphasized that substantial effect on suicide attempt and ideation was due to low parental care specifically low maternal care (Goschin et al., 2013). One insightful study was conducted in

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Iran which revealed that the factor anomie mediated the relationship between parental control and suicidality (Heydari et al., 2013).

A study conducted by Cruz, Narciso, Pereira and Sampaio (2015) showed the parental bonding characterized by low care and low control was associated with more adolescent suicide attempts. In this case, it is vital to note that such results are contrary to the extensive evidence supporting the association between high control and suicide behavior (Huang & Tzeng, 2016; Heydari et al., 2013; Dale et al., 2012; Goschin et al., 2013). This result was explained by reasoning that parental control at times acts as a protective factor against their children's self-destructive behavior; parents who exhibit a healthy level of protection and control over their children prevent or hinder their children's capability to kill oneself (Cero & Sifers, 2013). More specifically, a total absence of parental control over the child provides an unstable environment for the child that might act as a precursor for increased suicide risk. In a study that examined the relation of parental bonding to suicide ideation and suicide attempts in adolescents from two settings: (1) acute psychiatric care ($n = 172$) and (2) high school ($n = 426$), revealed that lower parental care was associated with suicide attempt and ideation. Specifically, those with a history of suicide attempts reported even lower scores on maternal and paternal care scores than adolescents with a history of suicide ideation. Both samples obtained similar effects except that in the community sample the results didn't reach statistical significance (Safer, Glenn & David Klonsky, 2015). Nevertheless, it is important to point out that in both samples no significant association was obtained between parental over protection and suicide ideation or attempt. Finally, Yterdal (2016) indicated that optimal bonding (high care and low overprotection) is prevalent among non-suicidal adolescents as optimal bonding is related to less risk factors for suicide.

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Based on the above, it can be hypothesized that adverse parental bonding acts as a risk factor for suicide, while optimal parental bonding acts as protector factor against suicide risk. Despite the fact that the literature provided explanations with regard to parental control being seen at times as a protective agent against suicide, the majority of the empirical evidence designated parental control as a risk factor for suicide behavior (Huang & Tzeng, 2016; Heydari et al., 2013; Dale et al., 2012; Goschin et al., 2013). Hence, the study at hand will investigate the association between parental control and suicide behavior whereby higher rates of parental control will predict higher rate of suicide risk. Compared to the above studies, the study at hand differs as it assesses the relationship between parental bonding and suicidal ideations and not only suicide risk as ideations that can progress into an attempt.

The Impact of Culture on the Relationship between Parenting Bonding and Mental Health

Primarily, culture is defined as a set of deeply rooted ideas that shape how one feels, thinks and acts; hence, culture is considered to play a significant role in influencing parental cognitions and beliefs and in turn shaping the child-rearing practices (Borenstein, 2016). More specifically, Darling and Steinberg (1993) asserted that parenting is a practice which is guided by socialization and cultural values (Darling and Steinberg, 1993). In fact, a vast literature has pointed to the presence of cultural differences in the way parental bonding elements overlapping with various parenting styles are associated with children's development and mental health (Dwairy, Achoui, Abouserie & Farah, 2006b; Saleh, 2014; carter et al., 2001; Chang, 2007). **Association between Parenting Style and Parental Bonding.** Primarily, it is essential to note that parental bonding style and parental style include factors that are similar. Demandingness in the parenting styles is comparable to over- control in parental bonding, while responsiveness in parental styles is comparable to the care factor in parental bonding (Yterdal, 2016). There are four parenting styles

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that were developed by Baumrind (1971, 1989), and Maccoby and Martin (1983). The four quadrants are neglectful/uninvolved parenting, authoritarian parenting, authoritative parenting, and permissive/indulgent parenting. Demandingness is described as level of control, supervision, and maturity demands from the child and responsiveness is described as warmth, acceptance, and involvement (Aunola et al., 2000; Glasgow et al., 1997). Parents are placed in one of the four parenting styles based on adolescents' responses on a parenting style index, which includes questions regarding two different scales: acceptance/involvement and strictness/supervision (Glasgow et al., 1997; Lamborn, Mounts, Steinberg, & Dornbusch, 1991). For example, according to Baumrind (1991), the authoritarian parenting style is characterized by the parents' exertion of high control over their children and restriction of their autonomy accompanied by minimal expressions of affection (Baumrind, 1991). In fact, the warmth and the control dimensions are the basic elements of parental bonding as well (Parker et al., 1979); hence, rendering the authoritarian parenting style equivalent to the affectionless control parenting style (Yterdal, 2016). There are two commonly used models for describing and studying parenting styles. The first was developed by Baumrind (1971, 1989) and Maccoby and Martin (1983) and can be referred to as "parenting styles." The second was developed by Parker, Tupling, and Brown (1979) and will be referred to in this review as "parental bonding styles." Both are four-quadrant models with two scales representing different bipolar parenting factors. These models are used separately but often for the same purposes in research, therefore the importance of keeping this model in mind as we discuss parental bonding and differentiate between both approaches to parenting.

Cross-cultural Differences in Parental Bonding and Mental Health. It has been contended that the authoritarian parenting style compromising high control and low care is depicted disparagingly as it reflects hostility, harshness and rejection in the American culture

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while among Asians it reflects equivalence to parental care and concern (Rohner & Pettngill, 1985; Gagné, Tourigny, Joly, & Pouliot-Lapointe, 2007; Saleh, 2014). Findings are contrasted to the tendency of North American youth to associate parental control with parental hostility and rejection, and results are discussed in relation to cultural differences concerning the value placed on individualism and the acceptance of parental authority (Rohner & Pettngill, 1985). However, this is not necessarily applicable to other cultures specifically the collectivistic cultures where the obedience of authority is valued and the authoritarian parenting style is found to generate a healthy emotional functioning in children (Gunnoe, Hetherington, & Reiss, 1999). For example, in the Asian American culture, excessive parental control, over protection and strict discipline is considered a fundamental aspect in parenting as this control insures the cultural norms of interdependence and harmony (Chung, 1997; Chang, 2007). In fact, due to the interdependent nature of the Asian culture, the Asian American culture emphasizes parental respect more than closeness and intimacy (Chao, 2001). Hence, because parental control and strictness is culturally accepted, it is contended that such parental practice provides its own benefits within this culture (Chang, 2007). The same is applicable to the Chinese culture, where Chinese parents exert more control as a degree of cultural absorption of parental authority (Chao, 1994). This is in contrast to the western culture where parents emphasize low control in their parenting so as to encourage independence and autonomy (Chao, 1994).

Further, in an Arab culture, children perceive the authoritarian style of punishment as a normal duty to be exhibited by their parents (Dwairy, 1997). In a study conducted by Dwairy et al. (2006a) which examined the parenting styles prevalent in 8 Arab countries and has found that the most prevalent parenting style among the collectivistic Arab countries was authoritarian one which reflects the low warmth, high control elements of the parenting bonding style. More

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specifically, unlike the westernized cultures, Dwairi et al. (2006a) stated that this parenting type was not found to be detrimental to mental health which further supports the notion that the consequences of the parental behaviors differ with different cultures (Hill, 1995; Saleh, 2014).

Such finding is explained by the assumption that the Arab youth perceive their parents' exertion of control as a normal parental interaction; and that the authoritarian parenting style is compatible with the Arab's authoritarian value where obedience is a norm (Dwairi et al., 2006b; Saleh, 2014).

More evidence related to the issue of the cultural impact on parental bonding is a study investigating the relationship between maternal childrearing practices and measures of anxiety and depression among a sample of 59 African Americans and 55 European American college students. Results revealed that the European Americans showed a negative relationship between anxiety, depression and the parental care dimension and a positive relationship between anxiety and overprotection (Carter, Sbrocco, Lewis and Friedman, 2001). This conflicts in part with results drawn contrary with the African American sample, the results revealed a similar negative relationship between anxiety, depression and care, but an absence of a relationship between anxiety, depression and overprotection (Carter, Sbrocco, Lewis and Friedman, 2001). More supporting evidence was obtained from a study conducted by Heider (2008), which aimed to investigate the association between adverse parental practices and anxiety disorders across six European countries (Belgium, France, Italy, Netherlands, Germany and Spain). Results revealed that the parental practices that are characterized by maternal overprotection and lack of parental care were equally associated with anxiety across all the six European countries. Hence, this study shows that across similar cultural European countries the expression of the relationship between parental bonding and anxiety was similar. Furthermore, another study revealed that the high

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exertion of psychological control accompanied by high affection among Finnish mothers were positively associated with internal and external problems in their children (kindergarteners) (Aunola & Nurmi, 2005). This finding fosters the relationship between maternal parental care and negative mental health.

Hence, investigating the association between early parental bonding and adult psychiatric symptoms in a specific cultural milieu will provide a further understanding on the existing of such an association. Therefore, the study at hand seeks to further the understanding of the effect of parental bonding on mental health in Lebanon specifically, and the role that religion plays in shaping cultural practices and parental bonding styles.

Religion and Parental Bonding

The way parents raise their children was also found to be influenced by parental religiosity (Lane, 2015; Vermeer, 2011). According to Latshaw (1998), highly religious fathers of various faiths consider themselves as involved fathers. For example, they are considered to engage in more one-to-one conversations with their children, and are more likely to share dinner with them compared to non-religious fathers (Wilcox, 2002). Generally, religious parents are more likely to spend more time with their children than children with a non-religious parents (Dollahite & Thhatcher, 2005). Hence, it can be fairly assumed that religion plays a significant role in encouraging a high levels of parental involvement with their children upbringings (Dollahite, 2003). Therefore, parents with weak religious belief are more likely to show low levels of care and low levels of control in their parenting and therefore are more likely to show neglectful parenting (Parker et al., 1979).

Additionally, studies have also demonstrated that religious parents are more likely to hug and praise their children compared to non-religious parents (Dollahite & Thatcher, 2005; Wilcox,

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2002) reflecting the care dimension of the parental bonding style (Parker et al., 1979).

Furthermore, studies have indicated that religion is associated with positive parenting and better child adjustment (Mahoney, Pargament, Tarakeshwar, & Swank, 2001); hence, the care dimension of the parental bonding style which is equivalent to positive parenting (Parker et al., 1979; Xu, Morin, marsh, Richards and Jones, 2016) seems to be associated with religiosity.

Nevertheless, it has been contended that religious people possess the inclination toward incorporating more control and rigidity in their parenting styles (Danso, Hunsberger and Pratt, 1997). Danso, Hunsberger and Pratt (1997) explained that religious parents would use a more controlling parenting style because they are willing to propagate strong religious values to their children; hence, encouraging obedience in their children. In further evidence for the association between parental control and religion, research data has also indicated that high scores obtained on religiousness were correlated with greater focus on obedience and less encouragement on autonomy (Danso, Hunsberger & Pratt, 1997).

Similarly, it has also been claimed by Lupfer, Hopkinson and Kelley (1988) and Sherkat and Ellison (1999) that religious parents are authoritarian i.e. incorporating the high control and low care elements of the parental bonding (Parker et al., 1979). In the same vein, a study conducted by Shor (1998) revealed that religious parents indicated that they encourage obedience, duty and sacrifice for the group in their children. However, these studies' results are in contradiction to what was stated with regard to religious parents exhibiting heightened care (Dollahite & Thatcher, 2005; Wilcox, 2002). Nevertheless, research has come to show that religious parents are more likely to balance their high levels of control, boundary and strict obedience with high levels of care, warmth and emotional involvement compared to non-religious parents (Horwath & Lees, 2010; Wilcox, 2002); the inclusion of the parental care

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elements acts as a buffer against the potential negative influence of the controlling parental style (Armet, 2009). In fact, a study conducted by Anderson (2007) on a sample of Jamaican families revealed that religion, as characterized by church affiliation and attendance, was associated with higher levels of parental involvement. Similarly, Letiecq (2007) has also found that religious fathers were more likely to engage in authoritative parenting styles reflecting high scores on both overprotection and care dimension (Parker et al., 1979). In the same line, in a qualitative study on a sample of twenty-five participants aged 20–50 that were invited to recall their experiences of being reared by their constrictive Protestant parents revealed that their religious parents employed parenting that was a combination of warmth and strictness (Godina, 2012). Contrary to the previous results, a study conducted by Vemeeer (2011) on sample of 356 Dutch parents has found no significant effect of parental religiosity on parenting style, however results pointed to the presence of a weak association between parental religiosity and the encouragement of autonomy.

Given that a considerable number of studies targeted the relationship between religiosity and parental bonding, no such studies have been done in Lebanon. In fact, the association between religion type and parental bonding is of significance given that religion as a culture force that can shape people's (including parents) their values and behaviors towards family members and influences their dimensions of parenting (Wilcox, 2002; Mahoney, Pargament, Murray-Swank, & Murray-Swank, 2003; Lane, 2015; Vermeer, 2011). Clearly, different religions might advocate different parental bonding dimensions. For example, it has been contended that parenting is considered to be a very important concept in the Bible; Christian parents are strongly urged to provide mainly care to their children (Seegobin, 2014). This suggests that the care dimension is salient in the father and mother parenting of Christians. With

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regard to Islam, Islamic upbringing is considered to be based on the premise of the transmission of the right and wrong to the children (Franceschelli & O'Brien, 2014). In other words, Muslim parents build their parenting on Islam's promotion of specific guidelines for behavior of their children (Franceschelli & O'Brien, 2014). Hence, parental bonding founded on Islamic values advocates the parental control dimension (Franceschelli & O'Brien, 2014). Additionally, Since Druses are the descendants of Muslim Arabs and adhere rigidly to the transmission of their values and rules as well as their insistence for inner group marriage (Dwairy, 2006), such practices strongly point to the incorporation of the control aspect into their relationships among each other specifically in the parent-child relationship.

In summary, based on the aforementioned literature it can be concluded that Muslim parents are more likely to employ parental bonding that is characterized by high control, while the Christian parents are more likely to employ parental bonding that is characterized by high care.

Therefore, based on all the above discussed literature, the study examined the following hypotheses:

Hypothesis 1 (H1). There is a positive correlation between parental control ((a) mother control, (b) father control) and suicide risk.

Hypothesis 2 (H2). There is a negative correlation between parental care ((a) mother care, (b) father care) and suicide risk.

Hypothesis 3(H3). There is a negative correlation between parental care ((a) mother care, (b) father care) and anxiety.

Hypothesis 4 (H4). There is a positive correlation between parental control ((a) mother control, (b) father control) and anxiety.

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Hypothesis 5 (H5). There is a positive correlation between parental care ((a) mother care, (b) father care) and self-esteem.

Hypothesis 6 (H6). There is a negative correlation between parental control ((a) mother control and (b) father control) and self-esteem.

Hypothesis 7(H7). Muslim mothers exhibit higher levels of parental control than Christian mothers.

Hypothesis 8(H8). Muslim fathers exhibit higher levels of parental control than Christian fathers.

Hypothesis 9 (H9). Christian mothers exhibit higher levels of parental care than Muslim mothers.

Hypothesis 10 (H10). Christian fathers exhibit higher levels of parental care than Muslim fathers.

Chapter 3

Method

This chapter is an overview of the research methodology that was used to carry out this study. It includes the description of the sample population, the procedure used to administer the tests, a detailed description of the instruments used, an explanation of the data analysis and finally, the ethical considerations that were taken into account.

Participants

A total of 200 participants were recruited for this study using snowball and convenient sampling. The sample consisted of males ($n=96$) and female ($n=104$) young adults above age 18 and residing in Beirut region. The choice of young adults as the participants for the study is because unlike westernized countries, in Lebanon the youth continue to experience parenting practices of their parents through adulthood (Saleh, 2014). Check Table 1 for a descriptive analysis regarding the demographic characteristics.

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Table 1

Sample Demographics

| Characteristics | N (percentage) |
|------------------------|----------------|
| Sex | |
| Male | 96 (48%) |
| Female | 104 (52%) |
| Age | |
| Majority range (18-30) | 193 (95.5%) |
| Occupation | |
| Students | 104 (52%) |
| Employees | 77 (38.5%) |
| No Occupation | 14 (7%) |
| Religion | |
| Muslims | 129 (64.5%) |
| Christians | 48 (24%) |
| Atheists | 8 (4%) |
| Sect | |
| Sunnis | 57 (28.5%) |
| Shiites | 47 (23.5%) |
| Durze | 8 (4%) |
| Catholics | 27 (13.5%) |
| Orthodox | 9 (4.5%) |
| Protestant | 1 (5%) |
| Atheist | 8 (4%) |

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Materials

The first section of the questionnaire package comprised of the participant consent form (see Appendix A) followed by the demographics questionnaire which covered the questions regarding age, gender, socio-economic information (occupation/education), mother's age, father's age, mother's educational background, father's educational background, parental marital status and parent's religion (see Appendix G).

In the present study the materials that were used included a survey consisting of 4 questionnaires: The Parental Bonding Instrument (PBI) (Parker, Tupling and brown, 1979) (Appendix B), Beck anxiety scale (BAI) (Beck, Epstein, Brown and Steer; 1988) (Appendix C), Suicide Behaviors Questionnaire-Revised (SBQ-R) (Osman, Bagge, Guitierrez, Konick, Kooper and Barrios, 2001) (Appendix D) and Rosenberg Self-esteem Scale (Rosenberg, 1965) (Appendix E). In addition to these questionnaires, a demographic sheet and a consent form were included in the survey. An introduction to each questionnaire was included in the section below.

Parental Bonding Instrument (PBI) (1979). This 4-point scale reports parental behaviors and the child-rearing styles of each parent. The PBI is a 25-item self-report; participants were required to recall maternal and paternal behavior for the first 16 years of life and each parent's attitudes and behaviors are measured separately than the other. There are items that represent Caring (12 items) and Protection (13 items). The subscale 'care' involves one side defined by affection, emotional warmth, closeness, empathy, and the absence of indifference, emotional coldness, and neglect. Sample items for this subscale include "My parents spoke to me with a warm and friendly voice" and "My parents could make me feel better when I was upset". Another subscale, 'overprotection', has one side defined by overprotection, intrusion, control,

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infantilizing, excessive contact, and prevention of independent behavior, and the other side defined by items that suggest allowance of independence and autonomy. Sample items for this subscale include “My parents tried to control everything I did” and “My parents felt that I could not look after myself”. Each item was rated on a scale ranging from 0 (very unlikely) to 3 (very likely). Total scores for Caring range from 0 to 48, and scores for Protection ranges from 0 to 52, with higher scores indicating greater care or protection, respectively. (Parker, Tupling and Brown, 1979)

The PBI has been shown to have adequate reliability and validity in a number of contexts and it is the most consistently used measure of parenting style in the literature (Enns, Cox, & Clara, 2002; Parker et al., 1979). For instance, PBI scores parallel parents’ own reports of their behavior and actual parental behaviors (Parker, 1981, 1984). Also, the parental care and parental control subscales were found to possess a high alpha reliability coefficient of .818 and .704, respectively (Ngai and Cheung, 2009). In addition, the PBI has shown stability over a 20-year period, with mood state and life experience having little effect on its validity (Wilhelm, Niven, Parker and Hadzi-Pavlovic, 2005).

Beck Anxiety Scale (BAI) (1988). The scale BAI consists of 21 items; 13 of the items portray physical symptoms (e.g., heart pounding), 5 represent cognitive aspects of anxiety (fear of the worst), and 3 have a physical as well as cognitive implications (e.g., terrified). Participants rate items according to how much they are bothered by the particular symptom. Each item is on a four-point scale ranging from 0 (not at all) to 3 (severely, I could barely stand it). The total score has a minimum of 0 and a maximum of 63. Beck et al. (1988) reported that the BAI possesses a high internal consistency of Cronbach’s $\alpha = .92$ and a one-week retest reliability coefficient

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of .75 and it also has good convergent validity with other anxiety measures and discriminant validity with measures of depression in a large psychiatric sample. (Check Appendix B).

This scale was chosen to measure anxiety as it is considered to be the most widely used anxiety measure with high reliability and proven validity (Lee et al., 2016). Also, it's a simple scale that needs only 5-10 minutes to complete (Creamer, Foran, and Bell, 1995). (Check Appendix C).

Suicide Behaviors Questionnaire-Revised (SBQ-R) (2001). This is a psychological self-report questionnaire designed to identify risk factors for suicide. SBQ-R asks about future anticipation of suicidal thoughts or behaviors as well as past and present thoughts or behavior and includes a question about lifetime suicidal ideation, plans to commit suicide, and actual attempts (Osman et al., 2001).

Different risk factors are measured by each of the four questions: the first assesses presence of suicidal thoughts and attempts, the second assesses frequency of suicidal thoughts, the third assesses the threat level of suicidal attempts, and the fourth assesses likelihood of future suicidal attempts (Osman et al., 2009). Each question has an individual scale, and each response corresponds to a certain point value. A total score of 7 and higher in the general population and a total score of 8 and higher in patients with psychiatric disorders indicates significant risk of suicidal behavior (Osman et al., 2001). Sample items include "Have you ever thought or attempted to kill yourself?" and "How often have you thought about killing yourself in the past year?"

This scale was demonstrated to be reliable and valid in recent studies. The SBQ-R has been shown to have high internal consistency of Cronbach's alpha .80 and a series of significant positive correlations with HADS-Anxiety and Depression subscales sustaining its construct

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validity (Aloba, Ojeleye and Aloba, 2017). Because the scale is of proven reliability and validity (Osman et al., 2001; Glaesmer et al., 2017; Aloba et al., 2017) and because it also ensures assessing a wide range of information in approximately 5 minutes' administration time (Osman et al., 2001), was used for this proposed study. (Check Appendix D).

Rosenberg Self-Esteem scale (1965). Is a 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from 1 "strongly agree" to 4 "strongly disagree". Sample items include: "I feel that I have a number of good qualities" (positively worded) and "I certainly feel useless at times." (negatively worded). Scores of the negative items are reversed and added to the positive ones. Total scores range from 10 to 40, with the higher the score-the higher the level of self-esteem.

The 10 items of the scale produced an alpha reliability coefficient of .786 (Ngai and Cheung; 2009). The reason for using this scale is because it is considered as the most widely used scale to measure self-esteem (Hatcher and Hall, 2009; Tinakon and Nathai, 2012), its reliability and validity was tested in a variety of settings and obtained effective results (Tinakon and Nathai, 2012; hatcher and Hall, 2009; Ngai and Cheung, 2009) and because it is short and easy to administer (Tinakon and Nathai, 2012). (Check Appendix E)

Procedure

Participants were sampled through two non-probability sampling methods: Convenience sampling and snowball sampling. Concerning convenience sampling, participants were approached on the streets, in public places, in shopping centers, outer gates of universities. First, they were asked about their nationality, and age. If the participant met the following

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characteristics (Lebanese nationality, Lebanese resident, and aged above 18) he/she was asked to participate in the study. Due to feasibility reasons, participants were approached solely in the Beirut district. Concerning Snowball sampling, some participants were asked to pass the surveys along with the informed consent form to other individuals with the recommended characteristics. Also, all the surveys were administered in a paper and pencil format. After the participant filled the survey, he/she put the survey in a sealed envelope and it is given to the administrator directly, for confidentiality purposes.

Data Analysis

After collection of the data and tracking the responses, the statistical tool SPSS was used to produce the statistical results. Primarily, descriptive statistics (frequency, mean, standard deviation) and inferential statistics were used. Pearson Correlation Coefficient “r” and multiple regression analyses, ANOVA, and T-test were used for the stated hypothesis, to test if childhood parental bonding predicts the development of adulthood anxiety disorders, self-esteem, risk of suicide and effect of religion among Lebanese adults.

Ethical considerations

Participation in the present research was voluntary and anonymous. Participants were informed about their right to withdraw from the study whenever they want. Additionally, they were assured that all information obtained from them will remain strictly confidential. An informed consent was signed by participants.

Because adverse parental bonding is a sensitive topic and might invoke negative emotions or memories when the individual was instructed to complete the parental bonding survey, participants were then provided with contact details of contact numbers and names of

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hospitals with psychiatric and psychological services in case they were interested in a referral to support or mental health service

Results

The purpose of this study is to examine a set of independent variables, namely: parental bonding components of Care and Control in relation to their separate dependent variables, anxiety level, suicide risk, self-esteem and religion among young Lebanese adults in Beirut, Lebanon. In this chapter, we will present the study population, the reliability findings, then we move on to test the proposed hypotheses by using the Statistical program SPSS Version 20 for data analysis.

Reliability Testing

Reliability of the study's instruments was assessed through Cronbach's alpha. Internal consistency for the Parental Bonding Instrument (PBI) and its subscales, the Beck Anxiety Scale (BAS), for Suicide Behaviors Questionnaire- Revised (SB-R) and the Rosenberg Self-esteem scale (RSE) were assessed through Cronbach's alpha and is presented in Table (1). Reliability of the parental bonding instrument total score was low to moderate ($\alpha = .67$), for the mother form and the father form was also low to moderate $\alpha = .59$ and $\alpha = .66$, respectively. The low Cronbach's alpha of the subscales has to be taken into consideration while interpreting the data. The reliabilities of the Beck Anxiety Scale (BAS), Suicide Behaviors Questionnaire- Revised (SB-R) and Rosenberg Self-esteem scale (RSE) were generally high and acceptable, $\alpha = .82$, $\alpha = .81$ or $\alpha = .87$, respectively. The internal consistencies are found in Table 2.

Chapter 4

Results

The purpose of this study is to examine a set of independent variables, namely, parental bonding components of Care and Control in relation to four separate dependent variables, anxiety level, suicide risk, self-esteem and religion among young Lebanese adults in Beirut, Lebanon. In this chapter, we will present the scale properties, the reliability findings, then we move on to test the proposed hypotheses by using the Statistical program SPSS Version 22, for data analyses.

Reliability Testing

Reliability of the study's instruments was assessed through Cronbach's alpha. Internal consistency for the Parental Bonding Instrument (PBI) and its subscales, for Beck Anxiety Scale (BAI), for Suicide Behaviors Questionnaire- Revised (SB-R) and for Rosenberg Self-esteem scale (RSE) were assessed through Cronbach's alpha and is presented in Table (2). Reliability of the parental bonding instrument total form was low to moderate ($\alpha=.68$), for the mother form and the father form was also low to moderate $\alpha = .63$ and $\alpha=.66$, respectively. The low Cronbach alpha of this subscale has to be taken into consideration while interpreting the data. The reliabilities of the Beck Anxiety Scale (BAI), Suicide Behaviors Questionnaire- Revised (SB-R) and Rosenberg Self-esteem scale (RSE) were generally high and acceptable, $\alpha = .92$, $\alpha=.81$ $\alpha=.87$, respectively. The internal consistencies are found in Table 2.

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Table 2*Previous and Current Cronbach's Alphas of the various Scales and Subscales*

| Scales | Cronbach's α | Earlier studies |
|-----------------------------|---------------------|-----------------|
| Parental Bonding Instrument | .68 | .96 |
| Mother Form | .63 | .87 |
| Father Form | .66 | .89 |
| Beck Anxiety Scale | .92 | .92 |
| Suicide Behaviors Q | .81 | .72 |
| Rosenberg Self-esteem | .87 | .84 |

Hypothesis Testing

Hypothesis 1: There is a positive correlation between parental control ((a) mother control, (b) father control) and suicide risk.

A Pearson Correlation coefficient was calculated between parental control and suicide risk. Results show a positive correlation between father control and suicide risk and suicide attempt ideation ($r=0.24$; $p=0.00$). No correlation, however, was obtained between mother control and suicide risk ($r=0.07$; $p=0.438$). The data supported part of hypothesis 1 (see Table 3).

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Table 3

Correlation Matrix between the various independent and dependent variables: mother care, father care, mother control, father control, anxiety, self-esteem and suicide risk

| | | M-care | F-care | M-control | F-con |
|--------------|---------------------|--------|--------|-----------|--------|
| Suicide risk | Pearson Correlation | -.27** | -.28** | .07 | .24** |
| | Sig. (2-tailed) | .000 | .000 | .438 | .000 |
| | N | 200 | 200 | 200 | 200 |
| Anxiety | Pearson Correlation | .23** | -.30** | .05 | .25** |
| | Sig. (2-tailed) | .001 | .000 | .480 | .000 |
| | N | 200 | 200 | 200 | 200 |
| Self-esteem | Pearson Correlation | .19** | .22** | .07 | -.21** |
| | Sig. (2-tailed) | .005 | .009 | .296 | .000 |
| | N | 200 | 200 | 200 | 200 |

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

Hypothesis 2: There is a negative correlation between parental care ((a) mother care, (b) father care) and suicide risk.

A Pearson Correlation coefficient was calculated between parental care and suicide risk. Results show a negative correlation between father care and suicide risk ($r = -0.28$; $p=0.0$). A negative correlation was also obtained between mother care and suicide risk ($r = -0.27$; $p=0.0$). Therefore, hypothesis 2 is confirmed as seen in Table 3.

Hypothesis 3: There is a negative correlation between parental care ((a) mother care and (b) father care) and anxiety.

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A Pearson Correlation coefficient was calculated between parental care and anxiety. Results show a negative correlation between father care and anxiety ($r = -0.30$; $p=0.0$). Yet, results show positive correlation between mother care and anxiety ($r = 0.27$; $p= 0.001$). Therefore, the data supported part of hypothesis 3 as seen in Table 3.

Hypothesis 4: There is a positive correlation between parental control ((a) mother control, (b) father control) and anxiety.

A Pearson Correlation coefficient was calculated between parental control and anxiety. Results show a positive correlation between father control and anxiety ($r = 0.25$; $p=0.00$). However, no correlation was obtained between mother control and anxiety ($r = 0.05$; $p=0.48$). Hence, the data supported part of hypothesis 4 (see Table 3).

Hypothesis 5: There is a positive correlation between parental care ((a) mother care, (b) father care) and self-esteem.

A Pearson Correlation coefficient was calculated between parental care and self-esteem. Results show a positive correlation between father care and self-esteem ($r = 0.22$; $p=0.009$) and mother care and self-esteem ($r = 0.19$; $p= 0.005$). Therefore, the hypothesis 5 is confirmed as seen in Table 3.

Hypothesis 6: There is a negative correlation between parental control ((a) mother control, (b) father control) and self-esteem.

A Pearson Correlation coefficient was calculated between parental care and self-esteem. Results show a negative correlation between father control and self-esteem ($r = -0.21$; $p= 0.002$) however no correlation was obtained between mother overprotection and self-esteem ($r = 0.07$; $p= 0.296$). The data supported part of hypothesis 6 (see Table 3).

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Hypothesis 7: Muslim mothers exhibit higher levels of parental control than Christian mothers.

T-test comparisons were conducted to examine mean differences between Christian mothers and Muslim mothers on overprotection. However, there were no significant differences in the scores on overprotection for Muslim mothers ($M = 1.6$; $SD = 0.492$) and Christian mothers ($M = 1.52$; $SD = 0.505$); $t(175) = 0.907$, $p = 0.365$. Therefore, hypothesis 7 was not confirmed as seen in table 5.

Table 4
Group statistics of all the Scales and Sub scales

| Group Statistics | | | | | |
|---|-----------|-----|------|----------------|-----------------|
| | Religion | N | Mean | Std. Deviation | Std. Error Mean |
| Rosenberg Self-esteem scale | Muslim | 129 | 2.71 | .712 | .063 |
| | Christian | 48 | 2.69 | .719 | .104 |
| Beck Anxiety Inventory | Muslim | 129 | 1.38 | .640 | .056 |
| | Christian | 48 | 1.21 | .544 | .079 |
| Suicide Behaviors Questionnaire-Revised-lifetime ideation and or suicide attempts | Muslim | 129 | 1.29 | .458 | .040 |
| | Christian | 48 | 1.29 | .459 | .066 |
| Suicide Behaviors Questionnaire-Revised-Suicide Risk | Muslim | 129 | 1.15 | .356 | .031 |
| | Christian | 48 | 1.17 | .429 | .062 |
| Parental bonding questionnaire Mother care | Muslim | 129 | 1.61 | .489 | .043 |
| | Christian | 48 | 1.71 | .459 | .066 |
| Parental bonding questionnaire Mother protection | Muslim | 129 | 1.60 | .492 | .043 |
| | Christian | 48 | 1.52 | .505 | .073 |
| Parental bonding questionnaire Father care | Muslim | 129 | 1.44 | .499 | .044 |
| | Christian | 48 | 1.67 | .476 | .069 |
| Parental bonding questionnaire Father protection | Muslim | 129 | 1.59 | .494 | .043 |
| | Christian | 48 | 1.46 | .504 | .073 |

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Table 5

Independent Group T-test between Muslims and Christians on mother care and father care components of parental bonding.

| | | Independent Samples Test | | | | | | | | |
|--------------------------------|-------------------------|---|------|------------------------------|-----|-----------------|-----------------|-----------------------|---|-------|
| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | F | Sig. | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference | 95% Confidence Interval of the Difference | |
| | | | | | | | | | Lower | Upper |
| Parental bonding questionnaire | Equal variances assumed | 7.091 | .008 | -1.179 | 175 | .240 | -.096 | .081 | -.257 | .065 |
| Parental bonding questionnaire | Equal variances assumed | 1.655 | .200 | .907 | 175 | .365 | .076 | .084 | -.089 | .242 |
| Parental bonding questionnaire | Equal variances assumed | 9.024 | .003 | -2.699 | 175 | .008 | -.225 | .083 | -.389 | -.060 |
| Parental bonding questionnaire | Equal variances assumed | .879 | .350 | 1.558 | 175 | .121 | .131 | .084 | -.035 | .296 |

Hypothesis 8: Muslim fathers exhibit higher levels of parental control than Christian fathers.

T-test comparisons were conducted to examine mean differences between Christian fathers and Muslim fathers on care. However, there were no significant differences in the scores on overprotection for Muslim fathers ($M = 1.59$, $SD = 4.94$) and Christian fathers ($M = 1.46$, $SD = 0.504$); $t(175) = 1.558$, $p = 0.121$). Hence, hypothesis 8 was not confirmed as seen in table 5.

Hypothesis 9: Christian mothers exhibit higher levels of parental care than Muslim mothers.

T-test comparisons were conducted to examine differences on Christian mothers and Muslim mothers on care. However, there were no significant differences in the scores on parental care for Muslim mothers ($M = 1.61, SD = 0.489$) and Christian mothers ($M = 1.71, SD = 0.459$); $t(175) = -1.179, p = 0.24$. Therefore, hypothesis 9 was not confirmed as seen in table 5.

Hypothesis 10: Christian fathers exhibit higher levels of parental care than Muslim fathers.

T-test comparisons were conducted to examine mean differences on Christian fathers and Muslim fathers on care. There were significant differences in the scores on parental care for Muslim fathers ($M = 1.44, SD = 0.499$) and Christian fathers ($M = 1.67, SD = 0.476$); $t(175) = -2.69, p = 0.008$. Therefore, hypothesis 10 was confirmed as seen in table 5.

Chapter 5

Discussion

The purpose of the study was to examine parental bonding and its effects on the development of adult psychopathology, specifically, anxiety disorders, self-esteem and risk of suicide in a sample of Lebanese adults; moreover, this study aimed at examining the relationship between parental bonding and religion, with a particular emphasis on investigating the applicability of the Arab findings regarding parental bonding in the Lebanese context.

The first hypothesis stated that there is a positive correlation between parental control (mother control and/or father control) and suicide risk. This hypothesis was partially confirmed since it revealed that father's control only and not mother's control is positively correlated with suicide risk; therefore, it is in line with some of the results of previous research (Safer et al., 2015; Dale et al., 2010; Goschin et al. 2013; Kovess-Masfety et al., 2011; Sharaf et al., 2016; McKinney & Renk, 2008; Hu, 1987; Shek, 1995; Matheson et al., 2005).

While previous studies found that maternal overprotection was positively correlated with suicide intent (Sharaf et al., 2016), no correlation was obtained between mother's overprotection and suicide risk in our study's sample; this is in contrast to numerous studies that have documented the strong association between maternal control and suicide risk (Sharaf et al., 2016; Kovess-Masfety et al., 2011; Goschin et al., 2013). This finding can be explained in the sense that because mothers had a more dominant role in the family environment than fathers did (McKinney & Renk, 2008) and they are considered to be the primary figure in raising and educating their children therefore, children expect mothers to be responsible for their upbringing and behavior (Gotshin et al., 2013). In the Lebanese culture, as a collectivistic country, the mother's overprotectiveness might be perceived by her child as an act of care since the mother

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figure is mainly associated with kindness, warmth and affection and leniency with their children, while fathers are seen to be more concerned with maintaining strictness and discipline as well the obedience for propriety and necessity (Hu, 1987; Shek, 1995); thus, marking the overprotectiveness as more salient in the father's rather than in the mothers especially in the Lebanese culture whereby the father is considered as dominant figure in the household and the one who is in authority and control (Usta & Hamieh, 2011).

It is important to note here that the negative relationship existing between parental control and increased suicide risk is explained in the light that parental overprotection causes frustration particularly during the adolescent period as they struggle to gain independence and autonomy (Ytredal, 2016). Increased parental control also plays a role in causing prolonged exposure of the individual to parental control in the form of violence which can lead to interpersonal stressors such as the arising conflict between oneself and the parent (Yredal, 2016). Additionally, the exposure to high control and low care of the authoritarian parental style is associated with anxiety sensitivity, which is considered a risk factor of suicide (Timpano, Carbonella, Keough, Abramowitz and Schmidt, 2015). Also, since parental control promotes the child's experience of hopelessness (Li, Li, Wang & Bao, 2001), this factor is considered a risk component for suicide; hence, indicating that psychological control increases the risk of suicide through the mediating role of hopelessness (Yterdal, 2016). Those previous studies discuss the effect of overprotectiveness of both parents on self-esteem yet the findings of the current study indicate that only the father overprotection effects self-esteem. Therefore, those studies are solely in line with the father's overprotection element of parental bonding in the Lebanese culture.

The second hypothesis stated that there is a negative correlation between parental care (mother care and/or father care) and suicide risk. This hypothesis was confirmed and it is in line

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with previous research (Safer et al., 2015; Dale et al., 2010; Goschin et al., 2013; Kovess-Masfety et al., 2011; Sharaf et al., 2016; McKinney & Renk, 2008; Hu, 1987; Shek, 1995; Matheson et al., 2005). For instance, in a study conducted by Safer, Catherene, Glenn and Klonsky (2015), it was revealed that suicide attempters and individuals with suicide ideations had significantly lower maternal and paternal care scores than non-suicidal adolescents. Also, a study conducted Dale, Power, Kane, Stewart and Murray (2010) revealed that repetitive suicidal behavior was associated with low levels of parental care and high level of parental control (Dale et al., 2010). More evidence was also obtained from a meta-analysis of 12 which pointed to the finding that decreased parental care ratings were significantly related to higher levels of suicidality (Goschin, Briggs, Blanco-Lutzen, Cohen, & Galynker, 2013). Moreover, in another study, those who reported suicide ideation and attempt were the ones exposed to less caring and more overprotective mothers (Kovess-Masfety et al., 2011); similarly, those who perceived their fathers as less caring reported higher suicide ideation and suicide attempts (Kovess-Masfety et al., 2011). Similarly, perceived care by father and mother was negatively correlated with suicide intent (Sharaf et al., 2016).

It is important to note here that the existing association between parent care and suicide risk is explained in the light that low levels of parental care allow the development of an intrinsically and socially alienating self-schema that negatively influences the sense of self; thus, mediating the relationship between parental bonding and repetitive suicide behavior (Dale et al., 2010). Also, low parental care leads to feelings of rejection and worthlessness, such feelings threaten the self-esteem and advocate helplessness and hopelessness which consequently lead to the increase in suicide behaviors (Dale et al., 2010). Further evidence indicates that low parental care play instills in the individual a sensation of low belongingness and burdensomeness; such

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sensations form a risk factor for the engagement in suicide (Safer et al., 2015). Overall, our study's findings (hypotheses 1 and 2) as well as the existing empirical evidence supported the agreement that suicide intent and risk appears to be the highest with those who perceived their mothers and fathers as less caring and their fathers as overprotective.

The third hypothesis stated that there is a negative correlation between parental care (mother care and/or father care) and anxiety. This hypothesis was partially confirmed and it is in line with previous research concerning father care, yet our study showed a positive correlation between mother care and anxiety which is not in line with previous research (Ambruster and Witherington 2016; Picardi et al. 2013; Oh et al. 2002). A study conducted by Ambruster and Witherington (2016) revealed that the parental bonding care dimension was negatively correlated with post-trauma and social anxiety symptoms which is in line with this study's current finding as the more the father shows care the less is the anxiety level. Yet, contradicting the findings regarding the effect of mother care on the anxiety level, a study conducted by Picardi et al. (2013) also found that clinically anxious individuals reported significantly lower scores on maternal care in comparison to the non-clinical and the drug resistant epilepsy patients. However, in another study conducted by Oh et al. (2002), the researcher concluded that while lower parental involvement was associated with childhood anxiety among Korean families, higher parental involvement was associated with childhood anxiety among Australian families. Such finding points to the impact of culture on the relationship between parental bonding and anxiety (Wei & Kendal, 2014). In the Lebanese culture, there is an emphasis on the mother's care, kindness and warmth (Usta & Hamiah, 2011), yet this care seems to be correlated with higher levels of anxiety according to this study. This particular result needs to be further studied in the future, i.e., the positive relationship between mother care and anxiety, especially that

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mother control and anxiety showed no correlation in our study (hypothesis 4), as we will discuss in the proceeding paragraphs. It seems that the operational definition of the concept of “care” as well as “control” have to be reexamined in more depth to see if they either overlap in any way, or maybe the concept of care, as defined by a western scale, has a totally different meaning in the Lebanese context. A factor analysis of the scale used should have been applied to see if both concepts as they both relate to each the father as well as the mother, mean similar things to the Lebanese population.

The fourth hypothesis stated that there is a positive correlation between parental control (mother control and/or father control) and anxiety. This hypothesis was partially supported (Wei & Kendal, 2014; Usta & Hamiah, 2011; Barber, 1996; Lima et al., 2011; Picardi et al., 2013) as a correlation was found between father control and anxiety which is in line with previous research, yet no correlation was found between mother control and anxiety.

As for the existing association between various parental bonding elements and anxiety it can be explained in the sense that parental over-control interferes with the child’s ability to develop a healthy sense of autonomy which promotes the child with a sensation that outside events are out of control; hence, creating in the child a sense of lack of control and a vulnerability for anxiety (Wei& Kendall, 2014). Also, decreased parental control as part of the neglectful parenting leads to an under-controlled environment which can promote impulsivity and thus hindering the child’s ability to learn self-regulation (Barber, 1996); whereby lack of self-regulation leads to anxiety (Lima et al., 2011; Picardi et al., 2013). On the contrary, when parents are responsive, caring and nurturing, a secure attachment is formed between the child and the parent; this leads to the emergence of an internal working model that allows the child to feel that his/her needs will be met and that the world is a safe place which hinders the emergence of

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anxiety feelings (Bowlby, 1982; Bowlby, 1977). Therefore, when a parent responds to the child's needs in rejection, an insecure attachment is formed between the child and the parent which in turn leads to the child's formation of a dysfunctional mental representation depicting the world as an unsafe place where there is uncertainty in the needs being met (Bowlby, 1982; Bowlby 1977). This also interferes with the child's emotion regulation capabilities and thus anxiety (Lima et al., 2011; Ngai and Chueng, 2009).

Previous studies discuss the effect of both mother and father control on anxiety level. Yet this study showed that only father control and not mother control positively correlates with anxiety level. The results obtained in this study can be explained as Lebanese families tend to have a hierarchical organization and the father is considered the head of the hierarchy; the family must perceive him as an authority figure and he is to be obeyed. Children can develop fear of being disobedient towards their father and can be anxious around him. Yet, the mother can be perceived as a caring figure and her overprotective acts are perceived as caring acts, therefore, children can feel more at ease around their mother and less anxious. Lebanese children might relate care component to their mothers and the overprotection and control component to their fathers. Also, the lack of obtained association between mother control and anxiety in this study's findings can also, as previously explained, be related to the mother's control being considered as part of the mother's care dimension since the mother figure is mainly associated with kindness, warmth and affection and leniency with their children (Hu, 1987; Shek, 1995), and they are considered to be the primary figure in raising and educating their children (Gotshin et al., 2013). And therefore, individuals submitted to father control can have higher levels of anxiety in the Lebanese culture and mother control may have no effect on their anxiety level as shown by the study.

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The fifth hypothesis stated that there is a positive correlation between parental care (mother care, and/or father care) and self-esteem. This hypothesis was confirmed and was in line with previous research since a positive correlation was obtained between self-esteem and mother care as well as between self-esteem and father care; thus, supporting hypothesis 5.

A study conducted by Ngai and Cheung (2009) pointed to the significant positive relationship existing between parental care and self-esteem. It has been found that negative parenting practices which is manifested in negative parental bonding such as low level of warmth, are associated with low self-esteem later in adulthood (Milvesky, Schlechter, Netter and keehn, 2007). In the same vein, Bahreini et al. (2011) found in their study that the parental bonding style incorporating inadequate care lead to the lowering of self-esteem in adulthood. A study conducted by Verrocchio, Marchetti and Fulcheri (2015) obtained similar results. They found that higher care scores were associated with higher self-esteem scores in a sample of Italian adults whose parents had been separated or divorced. The association between high parental care and high self-esteem is an indicator that the exposure to caring and supporting environment instills in the children a cognitive-emotional facet of this secure bonding and thus influences the mental and emotional capabilities of the child throughout his/her development (Bahreini et al., 2012). This enhances the child's self-confidence and self-regulation throughout the later years (Baumrind, 1987). Such finding has further supported the notion that the individual's perception of a parent-child bond that is characterized by affection, emotional warmth, closeness corresponds with a positive self-concept i.e. high self-esteem (Verrocchio, Marchetti and Fulcheri, 2015). These results of these studies are consistent with the findings of the current study concerning the relationship between parental bonding and self-esteem).

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Based on the above, it can be guessed that adverse low care elements of parental bonding, constitute a risk factor for diminishing one's self-esteem, while parents exhibiting high care in parental bonding, make-up a protective factor for self-esteem.

The sixth hypothesis stated that there is a negative correlation between parental control (mother control and father control) and self-esteem. This hypothesis was partially confirmed. The analyses revealed that a negative correlation was obtained between father protection and self-esteem; implying that the more the father exhibits overprotection, the less is the reported self-esteem which is in line with previous research. However, no correlation was obtained between mother overprotection and self-esteem which is not in line with previous research.

A negative association between parental control and self-esteem was found by numerous studies (Plunkett et al. 2007; Siffert et al. 2012). Another study by Bahreini et al. (2011) found that the parental bonding style incorporating inadequate care and excess control lead to the lowering of self-esteem in adulthood. Similarly, a study conducted by Ngai and Cheung (2009) pointed to the significant negative relationship between parental control and self-esteem. The association between high overprotectiveness and low care of the parental bonding dimensions with decreased self-esteem is mainly explained by the notion that excessive control exhibited by parents which incorporates commanding children to do things rather than allowing them to engage in decision making, undermines their autonomy, competence and relatedness development (Saleh, 2014). Specifically, the interference of the parents with the autonomy of their children impacts their healthy psychosocial development and leads to dysfunction, maladaptive behavior and psychological conditions (Lowniger & Kwok, 2001). Previous studies mostly highlighted the negative effect of parental control for both mothers and fathers on self-esteem. Yet, the current study found no correlation between mother control and self-esteem. This

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finding can be explained in the sense that mothers are figures that are mainly associated with kindness, warmth and affection and leniency with their children (Hu, 1987; Shek, 1995). Also, the mother's parental behavior is considered to be secure and constant (Amat, 1986). Therefore, mother's control can be perceived as a form of care rather than a form of over control. Mothers tend to be seen by their children as exerting control in a more lenient approach than fathers do. Fathers are seen to be more concerned with maintaining strictness and discipline as well as the obedience for propriety and necessity (Hu, 1987; Shek, 1995); this is mainly in congruence with father's control, dominance and authority in the household in the Lebanese culture (Usta & Hamieh, 2011). In the Lebanese culture, mothers are mostly associated with care dimension and the nurturing of the children, given that the father has always been known to maintain the role of discipline and strictness i.e. overprotectiveness (Hu, 1987; Shek, 1995; Brasileiro, Féres-Carneiro & Jablonski, 2002). Hence, because the father is mainly associated with adversity, dominance and authority, the variability of his behavior which at times might include interest, attention and increased level of involvement, i.e. care, might act as a critical feature in shaping the self-esteem.

T-test comparisons were used to test the seventh hypothesis stating that Muslim mothers exhibit higher levels of parental control than Christian mothers. The hypothesis was not supported by the study's findings as previous studies have shown. According to Seegobin, (2014), Muslims stress on the right of the parents to be respected and obeyed by children, and they are requested to issue orders and instructions that are in the best interest of children. So it is the duty of children to obey their orders and act accordingly. Muslims also consider the idea that children should remember that annoying one's parents can lead to God's wrath. It is also instinctive obligation of parents to protect their children from physical and moral harm. Good

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children should take all this 'harshness' in their own interest. No rude replies, no arguing, no explanations, no comments unless asked for. Parental advice should be listened to and acted upon, even if against children's own wishes. So the component of control is considered a necessity in raising children for Muslims. Yet, Christian parents are strongly instructed to provide mainly care to their children (Seegobin, 2014). However, the findings of this study showed no significant difference between Muslim and Christian mothers concerning overprotection element of parental bonding. This finding can be due to the perception of the Muslim child of his mother as a caring individual and perception of the mother's controlling behavior as acts of care. Also, the mother is perceived to be more caring than the father as described by many religious Islamic sayings such as "Paradise lies under the feet of the mother" and "Your mother, your mother, your mother, then your father". Those Islamic sayings indicate that the mother is perceived as a caring sacrificing individual that a child must obey and cherish. Therefore, Muslim children might undermine the effect of mother control and perceive it as acts that serve the best interest of the child. Hence, no differences can be found between overprotective levels of Christian and Muslim mothers.

T-test comparisons were also used to test the eighth hypothesis stating that Muslim fathers exhibit higher levels of parental control than Christian fathers. The hypothesis was not supported by the study's findings and it was not in line with previous research. Islamic children are requested to see the father as an authority figure (Franceschelli & O'Brien, 2014). Whereby, Christians are requested to cherish the love and care of both parents. Christian parents are both requested to be caring and nurturing. Both parents are the authority figures in children's lives and are responsible for their physical, emotional, social and spiritual development as well as the discipline of children. (Seegobin, 2014) Therefore, Christian fathers are requested to be caring

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towards their children yet Muslim fathers are requested to be disciplinary and authoritarian towards their children. Yet the findings of this study found no significant difference between the Christian and Muslim fathers regarding the overprotection parenting element. This finding can be due to the universal fatherhood traits that present the father as an authority figure. Characteristics of a universal father figure can include being a leader at home, being protective of the family, drawing clear boundaries, and teaching his children about consequences of irresponsible behavior. Ozgun et al. (2011) suggest that provision, protection, formation of the child's character, and giving legal status to a child functions seem to be viewed as primary functions of fatherhood across cultures. The same study also shows that all different world's religions reveal patriarchal teaching. In most cases, as a husband and father, men hold most or all of the roles of authority and prestige in religious organizations. Therefore, being overprotective can be a trait that fathers exhibit regardless of their religion or cultural background. This finding is in line with the cultural norm of patriarchy and universal gender role of fatherhood.

T-test comparisons were used to test the ninth hypothesis state that Christian mothers exhibit higher levels of parental care than Muslim mothers. The hypothesis was not supported by the study's findings and hence is not in line with previous research. Previous research showed that Christian parents are strongly urged by the Bible to provide mainly care to their children (Seegobin, 2014). This suggests that the care dimension is salient in the father and mother parenting of Christians. With regard to Islam, Islamic upbringing is considered to be based on the premise of the transmission of the right and wrong to the children (Franceschelli & O'Brien, 2014). Islam focuses more on the protective and disciplinary role of parents rather than the caring role (Franceschelli & O'Brien, 2014). Dhimi and Sheikh (2000) points out that Muslim children are instructed to show care towards their parents and obedience. It reflects the caring

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role of children towards their parents and specifically towards mothers. Yet the caring role of parents towards children is not as highlighted in the Islam as much as it is highlighted in Christianity. However, in this study, no significant difference was found between Christian mothers and Muslim mothers regarding the parental care dimension. This finding can be due to the universal motherhood trait that dictates the innate qualities of motherhood such as love, empathy, and patience regardless of cultural influences such as religion. This universal trait is adopted by most cultures in the world as the basic general definition of a being a "good mother" as being a nurturing individual who shows warmth, empathy and care towards her children. Ann Crittenden (2007) argues that despite the progress made by the women's movement, women overall still choose "traditional" lives. She writes: "For whatever reasons, biology, social conditioning, institutional inertia, choice, or no other choice, children's lives are still overwhelmingly shaped by women, and children are still the focus of most women's lives". Therefore, throughout time and cultures, the "ideal" mother continues to be re-created over time (Thurer, 1994). The good motherhood ideology was not developed by someone with ideas about religious reformation or by some one person with an agenda or political philosophy, rather it is something that affects the lives of mothers everywhere. This belief and ritual system then acts as a cultural frame that all women must confront or embrace at some point in their motherhood journey. Therefore, mothers regardless of their religion or culture can exhibit a universal care trait towards their children.

T-test comparisons were also used to test the tenth hypothesis state that Christian fathers exhibit higher levels of parental care than Muslim fathers. This hypothesis was confirmed and it is in line with previous research. The finding that Christians have more father care than Muslims can be explained by the following. Primarily, parenting is considered to be a very important

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concept in the Bible; Christian parents are strongly instructed to provide mainly care to their children (Seegobin, 2014). This indicates that the care dimension is salient in the father and mother parenting of Christians. Also, given that in Islam, although fathers are also ascribed with the nurturing and warmth characteristics (Shwalb, Sjwald & Lamb, 2013), however, the traditional Islam mainly advocates the father's role to maintain a legitimate authoritarian figure in the family (Kusha, 2016); indicating the more pronounced overprotective role of Islamic fathers. The current findings of this study was in line with previous studies and showed that Christian fathers exhibit parental care more than Muslim fathers do. Therefore, parental bonding element of father care is affected by the father's religion. Hence, cultural components such as religion play a role in fathers parental bonding style in the Lebanese context. Religion promotes individuals such as parents to possess a culture that shapes their values and behaviors towards family members and influences their dimensions of parenting (Wilcox, 2002; Mahoney, Pargament, Murray-Swank, & Murray-Swank, 2003; Lane, 2015; Vermeer, 2011); thus, indicating that different religions might advocate different parental bonding dimensions; yet in this study, those previous research findings apply to the paternal parental bonding element of care specifically.

Conclusion

The study's conclusions reinforce previous findings which indicate that the parental bonding factors of parental care and parental control can be a key determinant of the individual's anxiety, self-esteem and suicide risk among the Lebanese adults. In fact, the impact on parental care factor of parental bonding was found to contribute to the individual's mental health in most of the countries and cultures (Dwairy et al., 2006a). Yet, consequences of the parental behaviors differ with different cultures (Hill, 1995; Saleh, 2014). In addition, high parental control and low

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parental care were found to be risk factors for the development of mental health issues such as higher levels of anxiety, lower levels of self-esteem, and risk of suicide yet parental care was found to be a protective factor. However, the findings of the study showed a difference between the effect of mother's and father's control/care elements of parental bonding as the effect can be similar for some mental health components yet different for others. In the Lebanese culture, there is an emphasis on the mother's care, kindness and warmth (Usta & Hamiah, 2011), yet this care seems to be correlated with higher levels of anxiety according to this study. This particular result needs to be further studied in the future, i.e., the positive relationship between mother care and anxiety. It seems that the operational definition of the concept of "care" as well as "control" have to be reexamined in more depth to see if they either overlap in any way, or maybe the concept of care, as defined by a western scale, has a totally different meaning in the Lebanese context.

The study findings highlight the effect of father care and control on the variables of anxiety, self-esteem and risk of suicide suggesting that previous studies findings apply on fathers more than mothers in the Lebanese culture. Further, when religion was taken into consideration, the study found that Christian fathers exhibit higher levels of care compared to Muslim fathers yet care and control elements related to mothers of both religions were not significantly different. This implies that father's care element of parental bonding can be affected by religion in the Lebanese culture. This finding indicates that different religions might advocate different parental bonding dimensions with a particular emphasis on the influence of cultural elements on the saliency of control versus care in parenting of the mother versus the father (Wei & Kendell, 2014).

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Lebanon scores 40 on the collectivistic dimension (Hofstede, 1983) and it has been contended that the authoritarian parental style which is equivalent to affectionless control parental bonding (high control, low care) (Yterdal, 2016) is prevalent in the collectivistic Arab countries and was not found to be detrimental to youth's mental health. However, the study's findings were indicative of a positive association between high control and low care and decreased self-esteem and increased anxiety and suicide risk, which are indicators of negative mental health (Saleh, 2014; Yterdal, 2016) for fathers parental bonding. Also, current findings indicate the presence of high mother care was found to be associated with lower risk of suicide. Hence, the findings of the current study are consistent with the Western literature where low parental care and high parental control are associated with negative mental health outcomes (Saleh, 2014; Dwairy et al., 2006b) mostly with father's parental bonding. This can be explained by the sense that the authoritarian parenting style is incongruent with the westernized value system of the Lebanese youth which reflects urbanization and westernization when it comes to the mother parenting style effect (Saleh, 2014).

Hence, these results imply the change in the focus of Lebanese father's values towards greater emphasis on better parental care and greater child psychological autonomy, which are features that are commonly experienced in the west (Saleh, 2014). Mother's parental bonding elements of care and control and their effect on anxiety, self-esteem and suicide risk were found to be mostly contradictory to western findings and to previous Arab findings by Dwairy (2006), and therefore, there must be an emphasis on developing further studies that explore the mother-child relationship in the context of the Lebanese culture to clarify further most beneficial parental practices for the Lebanese child's mental health.

Clinical Implications

Understanding the association between unhealthy parental bonding and psychopathology such as anxiety, self-esteem, and suicide risk among young adults would help clinicians assess the risk factors and protective factors of each individual related to parental practices. This understanding of risk factors for those disorders would allow mental health practitioners develop more targeted interventions. The aim can be directed towards strengthening parental care associated with anxiety and other psychiatric disorders, preferably in high risk groups, by the implementation of public mental health programs. Those programs can focus on sharpening parents' understanding of the basic needs of their children like emotional warmth. Activating the protective effects of parental care can lead to a long-term reduction of psychiatric disorders. Adjustments of parenting strategies in accordance with cultural differences will be necessary for a successful clinical intervention.

The study's findings can aid clinicians in working with suicide risk patients, and may help design interventions aimed at improving parenting style in families with a history of affective disorders, which could effectively reduce suicidal behavior in children and adults. In a clinical setting, if a child complains that a parent is not understanding, loving, or supportive, this may be an indicator with important implications for future mental health. Therefore, a combination of complementary strategies can be sufficient to reduce the vulnerability to suicidality by activating the protective effects of parental care. The findings of this study suggest that preventive interventions may be useful to in order to boost self-esteem at the individual level, whereas interventions that promote positive parental bonding could be implemented at a familial level. Therefore, clinicians and mental health practitioners should conduct parenting

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sessions reinforcing the care component of parenting and providing psycho-education for parents regarding effect of parental bonding on psychopathology.

Future Research Recommendations

Stepping from the reported findings, it can be suggested future studies might translate the Parental Bonding questionnaire into Arabic for more valid and reliable results in order to render it culturally more valid. Moreover, future studies have to attempt to analyze deeper the meaning of the different parental bonds, which includes the father's and the mother's, in the Lebanese context.

Additionally, future research can also aim to examine variables that could be mediating or moderating the association between perceived parenting and levels of each of self-esteem, anxiety and suicide risk. Such mediating factors can be the children's conflict with their parents, the children's personality traits (Saleh, 2014) and parents' religion and religiosity (Lane, 2015; Vermeer, 2011). Further studies need to also investigate the role of demographics as well as the gender of the individuals in moderating or mediating the relationship between a parental bonding and various mental health elements. Future studies might also provide more focus on investigating the independent and separate role of the father parental bonding and as well as the mother parental bonding (investigating one variable by totally controlling the other) given that the mother's and father's parental bonding dimensions might interact to have a joint impact on the children. The findings of this study can provide fundamental educational and social implications where the importance of healthy parenting can be annotated and brought to the attention to the parents, children and society as whole (Saleh, 2014).

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Limitations of the Study

This study had a number of limitations. The results of the scale's reliability revealed that the Parental Bonding scale was low in reliability. The reason behind that can be explained in the sense that the parental bonding instrument was not translated in to Arabic and adapted to the Lebanese culture; it was presented in English. Also, some concept and meanings are culturally based and the conceptualization of the items chosen during a scale development from a particular norming group might not be shared by people from other groups (Dodd et al., 2012). Hence, some items of the parental bonding instruments incorporating the care and control dimensions of parental bonding might have been in confusion to the Lebanese participants. Another reason for this low reliability could be also influenced by the small sample size. This study did not focus on how maternal and paternal parenting styles interact and it did not study the combined effect of paternal and maternal parenting styles and how different combinations may have affected their mental health. Finally, another limitation is related to including only English educated individuals in the sample, whereas French educated individuals as well as Arabic speaking Lebanese need to be also included to get a more representative sample of the Lebanese culture.

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Appendix A

Consent Form

Dear Ms./Mr.

I am Lama Hamdoun, a Master's student at Haigazian University from the Faculty of Social and Behavioral Sciences. I am currently carrying out a research study titled "The Relationship between Childhood parental Bonding and Adulthood Anxiety Disorders, Self-Esteem and Risk of Suicide among Lebanese Adults" as part of my master's thesis. Kindly read the below information to decide whether you would like to participate in this research study.

Purpose of the Research Project

This research study aims to investigate the relationship between childhood parental bonding and adulthood anxiety disorders, self-esteem and risk of suicide among the Lebanese Adults. This study will contribute towards the partial fulfillment of my academic study requirements at Haigazian University.

Participation in this Research Project

- Participation in this project is voluntary. You are free to withdraw anytime without having to give any reason for your withdrawal.
- 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 or frequency and a demographic form.
- Participation in this study does not involve any physical risk or emotional risk to you beyond the risks of daily life. However, if you feel distressed after remembering incidents of exposure to adverse parenting, you can stop the completion of the survey. If you are interested, contact details of recommended mental health counselors if they would like to attend a counseling session can be administered to you. You will also be provided after the completion of the survey with a list of NGOs that provide psychological help in Lebanon.

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as well as a number of a suicide hotline.

- You will receive no direct benefits from participating in this research; however your participation does help researchers better understand how parental bonding influences later psychopathology.

- For any additional information you can contact me, Lama Hamdoun, on this email address: ----- or on this mobile number: -----

I, after reading the information above, agree to participate in this study.

| | |
|------------------------------|--|
| Item 1, 6, 11, 16, 21 | Very High = 5 Moderately High = 4 Moderately Low = 3 Very Low = 2 |
| Item 2, 4, 14, 18, 24 | Very High = 5 Moderately High = 4 Moderately Low = 3 Very Low = 2 |
| Item 3, 5, 10, 15, 20, 23 | Very High = 5 Moderately High = 4 Moderately Low = 3 Very Low = 2 |
| Item 7, 8, 9, 12, 13, 17, 22 | Very High = 5 Moderately High = 4 Moderately Low = 3 Very Low = 2 |

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Appendix B

PARENTAL BONDING INSTRUMENT (PBI)

BLACK DOG BARRIERS

Authors

Gordon Parker, Hilary Tupling and L.B. Brown

Variables measured

Two scales termed 'care' and 'overprotection' or 'control', measure fundamental parental styles as perceived by the child. The measure is 'retrospective', meaning that adults (over 16 years) complete the measure for how they remember their parents during their first 16 years. The measure is to be completed for both mothers and fathers separately. There are 25 item questions, including 12 'care' items and 13 'overprotection' items.

Scoring instructions

Unlike the Intimate Bond Measure (IBM), not all items are scored in the same direction.

| <i>Care</i> | |
|---------------------------------|--|
| Items: 1, 5, 6, 11, 12, 17: | Very like = 3 Moderately like = 2 Moderately unlike = 1 Very unlike = 0 |
| Items: 2, 4, 14, 16, 18, 24 | Very unlike = 3 Moderately unlike = 2 Moderately like = 1 Very like = 0 |
| <i>Overprotection</i> | |
| Items: 8, 9, 10, 13, 19, 20, 23 | Very like = 3 Moderately like = 2 Moderately unlike = 1 Very unlike = 0 |
| Items: 3, 7, 15, 21, 22, 25 | Very unlike = 3 Moderately unlike = 2 Moderately like = 1 Very like = 0 |

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| | |
|---|---|
| Parental bonding quadrants In addition to generating care and protection scores for each scale, parents can be effectively "assigned" to one of four quadrants: | |
| "affectionate constraint" = high care and high protection | "affectionless control" = high protection and low care |
| "optimal parenting" = high care and low protection | "neglectful parenting" = low care and low protection |
| Assignment to "high" or "low" categories is based on the following cut-off scores: | |
| <ul style="list-style-type: none">• For mothers, a care score of 27.0 and a protection score of 13.5.• For fathers, a care score of 24.0 and a protection score of 12.5. | |

Populations measured

Original data [1] were generated from 150 subjects including students and nurses and 500 general practice attenders. Numerous other populations have been studied subsequently.

Reliability and validity

The PBI has been found to have good reliability and validity based on several studies.

In the original study [1] the PBI possessed good internal consistency and re-test reliability. Further reassuring data have been derived by examining the test-retest reliability of the PBI over extended periods, and we will shortly be publishing data for a 20-year interval. The PBI has been shown to have satisfactory construct and convergent validity and to be independent of mood effects [see 2].

Availability

A copy of the full 25-item forms for scoring mothers and fathers is attached below. Please follow the scoring instructions. The standard application asks subjects to score their biological parents (one for each form) as the subject remembers them in their first sixteen years. In some studies, other "parent figures" have and can clearly be rated.

A modified version of the PBI (the MOPS or Measure of Parenting Style) was developed in 1997 for two purposes. It overcame one of the PBI limitations in having some 'double negative' items, and which can cause some confusion. Thus, all items are constructed in a direct way. Secondly, while preserving the 'care' and 'control' scales, they are considerably reduced in terms of the numbers of items. Thirdly, there is an 'abuse' scale. Thus, the MOPS is described after the PBI measure.

The PBI is not held under copyright. Therefore, clinicians and researchers are free to use the measure without obtaining permission.

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FATHER FORM

This questionnaire lists various attitudes and behaviours of parents. As you remember your FATHER in your first 16 years would you place a tick in the most appropriate box next to each question.

| | Very like | Moderately like | Moderately unlike | Very unlike |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Spoke to me in a warm and friendly voice | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Did not help me as much as I needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Let me do those things I liked doing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Seemed emotionally cold to me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Appeared to understand my problems and worries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Was affectionate to me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Liked me to make my own decisions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Did not want me to grow up | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Tried to control everything I did | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Invaded my privacy | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Enjoyed talking things over with me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Frequently smiled at me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Tended to baby me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Did not seem to understand what I needed or wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Let me decide things for myself | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Made me feel I wasn't wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Could make me feel better when I was upset | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Did not talk with me very much | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Tried to make me feel dependent of her/him | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Felt I could not look after myself unless she/he was around | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. Gave me as much freedom as I wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. Let me go out as often as I wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Was overprotective of me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Did not praise me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Let me dress in any way I pleased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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MOTHER FORM

This questionnaire lists various attitudes and behaviours of parents. As you remember your MOTHER in your first 16 years would you place a tick in the most appropriate box next to each question.

| | Very like | Moderately like | Moderately unlike | Very unlike |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Spoke to me in a warm and friendly voice | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Did not help me as much as I needed | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Let me do those things I liked doing | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Seemed emotionally cold to me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Appeared to understand my problems and worries | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Was affectionate to me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Liked me to make my own decisions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Did not want me to grow up | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Tried to control everything I did | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Invaded my privacy | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Enjoyed talking things over with me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Frequently smiled at me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. Tended to baby me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Did not seem to understand what I needed or wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Let me decide things for myself | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Made me feel I wasn't wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Could make me feel better when I was upset | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. Did not talk with me very much | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 19. Tried to make me feel dependent on her/him | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 20. Felt I could not look after myself unless she/he was around | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 21. Gave me as much freedom as I wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 22. Let me go out as often as I wanted | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 23. Was overprotective of me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 24. Did not praise me | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 25. Let me dress in any way I pleased | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

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Appendix C

Beck Anxiety Inventory

Below is a list of common symptoms of anxiety. Please carefully read each item in the list. Indicate how much you have been bothered by that symptom during the past month, including today, by circling the number in the corresponding space in the column next to each symptom.

| | Not At All | Mildly but it didn't bother me much. | Moderately - it wasn't pleasant at times | Severely - it bothered me a lot |
|-------------------------|------------|--------------------------------------|--|---------------------------------|
| Numbness or tingling | 0 | 1 | 2 | 3 |
| Feeling hot | 0 | 1 | 2 | 3 |
| Wobbliness in legs | 0 | 1 | 2 | 3 |
| Unable to relax | 0 | 1 | 2 | 3 |
| Fear of worst happening | 0 | 1 | 2 | 3 |
| Dizzy or lightheaded | 0 | 1 | 2 | 3 |
| Heart pounding/racing | 0 | 1 | 2 | 3 |
| Unsteady | 0 | 1 | 2 | 3 |
| Terrified or afraid | 0 | 1 | 2 | 3 |
| Nervous | 0 | 1 | 2 | 3 |
| Feeling of choking | 0 | 1 | 2 | 3 |
| Hands trembling | 0 | 1 | 2 | 3 |
| Shaky / unsteady | 0 | 1 | 2 | 3 |
| Fear of losing control | 0 | 1 | 2 | 3 |
| Difficulty in breathing | 0 | 1 | 2 | 3 |
| Fear of dying | 0 | 1 | 2 | 3 |
| Scared | 0 | 1 | 2 | 3 |
| Indigestion | 0 | 1 | 2 | 3 |
| Faint / lightheaded | 0 | 1 | 2 | 3 |
| Face flushed | 0 | 1 | 2 | 3 |
| Hot/cold sweats | 0 | 1 | 2 | 3 |
| Column Sum | | | | |

Scoring - Sum each column. Then sum the column totals to achieve a grand score. Write that score here _____.

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Interpretation

A grand sum between **0 – 21** indicates very low anxiety. That is usually a good thing. However, it is possible that you might be unrealistic in either your assessment which would be denial or that you have learned to "mask" the symptoms commonly associated with anxiety. Too little "anxiety" could indicate that you are detached from yourself, others, or your environment.

A grand sum between **22 – 35** indicates moderate anxiety. Your body is trying to tell you something. Look for patterns as to when and why you experience the symptoms described above. For example, if it occurs prior to public speaking and your job requires a lot of presentations you may want to find ways to calm yourself before speaking or let others do some of the presentations. You may have some conflict issues that need to be resolved. Clearly, it is not "panic" time but you want to find ways to manage the stress you feel.

A grand sum that **exceeds 36** is a potential cause for concern. Again, look for patterns or times when you tend to feel the symptoms you have circled. Persistent and high anxiety is not a sign of personal weakness or failure. It is, however, something that needs to be proactively treated or there could be significant impacts to you mentally and physically. You may want to consult a counselor if the feelings persist.

| | | | |
|---|--|----------|--------------|
| Anxiety | | 0 points | Total Points |
| Anxiety symptoms (1-4) | | 4 points | |
| Anxiety symptoms (5-8) | | 4 points | |
| Anxiety symptoms (9-12) | | 4 points | |
| Anxiety symptoms (13-16) | | 4 points | |
| Anxiety symptoms (17-20) | | 4 points | |
| Anxiety symptoms (21-24) | | 4 points | |
| Anxiety symptoms (25-28) | | 4 points | |
| Anxiety symptoms (29-32) | | 4 points | |
| Anxiety symptoms (33-36) | | 4 points | |
| Anxiety symptoms (37-40) | | 4 points | |
| Anxiety symptoms (41-44) | | 4 points | |
| Anxiety symptoms (45-48) | | 4 points | |
| Anxiety symptoms (49-52) | | 4 points | |
| Anxiety symptoms (53-56) | | 4 points | |
| Anxiety symptoms (57-60) | | 4 points | |
| Anxiety symptoms (61-64) | | 4 points | |
| Anxiety symptoms (65-68) | | 4 points | |
| Anxiety symptoms (69-72) | | 4 points | |
| Anxiety symptoms (73-76) | | 4 points | |
| Anxiety symptoms (77-80) | | 4 points | |
| Anxiety symptoms (81-84) | | 4 points | |
| Anxiety symptoms (85-88) | | 4 points | |
| Anxiety symptoms (89-92) | | 4 points | |
| Anxiety symptoms (93-96) | | 4 points | |
| Anxiety symptoms (97-100) | | 4 points | |
| Total all the anxiety symptoms from the questionnaire | | | |
| The total score should range from 0-100 | | | |
| | | | Total Points |
| | | | |
| | | | Total Score |

Appendix D

SBQ-R - Scoring

| Item 1: taps into <i>lifetime</i> suicide ideation and/or suicide attempts | | | |
|---|--------------------------------|----------|--|
| Selected response 1 | Non-Suicidal subgroup | 1 point | |
| Selected response 2 | Suicide Risk Ideation subgroup | 2 points | |
| Selected response 3a or 3b | Suicide Plan subgroup | 3 points | |
| Selected response 4a or 4b | Suicide Attempt subgroup | 4 points | <u> </u> Total Points |

| Item 2: assesses the <i>frequency</i> of suicidal ideation over the past 12 months | | | |
|---|------------------------------|----------|--|
| Selected Response: | Never | 1 point | |
| | Rarely (1 time) | 2 points | |
| | Sometimes (2 times) | 3 points | |
| | Often (3-4 times) | 4 points | |
| | Very Often (5 or more times) | 5 points | <u> </u> Total Points |

| Item 3: taps into the <i>threat</i> of suicide attempt | | | |
|---|--|----------|--|
| Selected response 1 | | 1 point | |
| Selected response 2a or 2b | | 2 points | |
| Selected response 3a or 3b | | 3 points | <u> </u> Total Points |

| Item 4: evaluates <i>self-reported likelihood</i> of suicidal behavior in the future | | | |
|---|------------------|----------|--|
| Selected Response: | Never | 0 points | |
| | No chance at all | 1 point | |
| | Rather unlikely | 2 points | |
| | Unlikely | 3 points | |
| | Likely | 4 points | |
| | Rather Likely | 5 points | |
| | Very Likely | 6 points | <u> </u> Total Points |

Sum all the scores circled/checked by the respondents.
The total score should range from 3-18.

Total Score

- 1. I have had a plan at least once to kill myself and really wanted to do it
 - 2. I have had a plan at least once to kill myself, but did not want to do it
 - 3. I have had a plan at least once to kill myself, but really talked it out
4. How often have you thought about killing yourself in the next year?
- A. Never
 - B. Rarely (1 time)
 - C. Sometimes (2 times)
 - D. Often (3-4 times)
 - E. Very Often (5 or more times)

AUC = Area Under the Receiver Operating Characteristic Curve; the area measures discrimination, that is, the ability of the test to correctly classify those with and without the risk. [.90-1.0 = Excellent; .80-.90 = Good; .70-.80 = Fair; .60-.70 = Poor]

| | Sensitivity | Specificity | PPV | AUC |
|--|-------------|-------------|------|------|
| Item 1: a cutoff score of ≥ 2 | | | | |
| • Validation Reference: Adult Inpatient | 0.80 | 0.97 | .95 | 0.92 |
| • Validation Reference: Undergraduate College | 1.00 | 1.00 | 1.00 | 1.00 |
| Total SBQ-R : a cutoff score of ≥ 7 | | | | |
| • Validation Reference: Undergraduate College | 0.93 | 0.95 | 0.70 | 0.96 |
| Total SBQ-R: a cutoff score of ≥ 8 | | | | |
| • Validation Reference: Adult Inpatient | 0.80 | 0.91 | 0.87 | 0.89 |

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SBQ-R Suicide Behaviors Questionnaire-Revised

Patient Name _____ Date of Visit _____

Instructions: Please check the number beside the statement or phrase that best applies to you.

1. Have you ever thought about or attempted to kill yourself? (check one only)

1. Never
2. It was just a brief passing thought
- 3a. I have had a plan at least once to kill myself but did not try to do it
- 3b. I have had a plan at least once to kill myself and really wanted to die
- 4a. I have attempted to kill myself, but did not want to die
- 4b. I have attempted to kill myself, and really hoped to die

2. How often have you thought about killing yourself in the past year? (check one only)

1. Never
2. Rarely (1 time)
3. Sometimes (2 times)
4. Often (3-4 times)
5. Very Often (5 or more times)

3. Have you ever told someone that you were going to commit suicide, or that you might do it? (check one only)

- 1. No
- 2a. Yes, at one time, but did not really want to die
- 2b. Yes, at one time, and really wanted to die
- 3a. Yes, more than once, but did not want to do it
- 3b. Yes, more than once, and really wanted to do it

4. How likely is it that you will attempt suicide someday? (check one only)

- | | |
|--|---|
| <input type="checkbox"/> 0. Never | <input type="checkbox"/> 4. Likely |
| <input type="checkbox"/> 1. No chance at all | <input type="checkbox"/> 5. Rather likely |
| <input type="checkbox"/> 2. Rather unlikely | <input type="checkbox"/> 6. Very likely |
| <input type="checkbox"/> 3. Unlikely | |

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Appendix E

ROSENBERG SELF-ESTEEM SCALE

Reference:

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Description of Measure:

A 10-item scale that measures global self-worth by measuring both positive and negative feelings about the self. The scale is believed to be uni-dimensional. All items are answered using a 4-point Likert scale format ranging from strongly agree to strongly disagree.

Abstracts of Selected Related Articles:

Gray-Little, B., Williams, V.S.L., & Hancock, T. D. (1997). An item response theory analysis of the Rosenberg Self-Esteem Scale. *Personality and Social Psychology Bulletin*, 23, 443-451.

The Rosenberg Self-Esteem Scale, a widely used self-report instrument for evaluating individual self-esteem, was investigated using item response theory. Factor analysis identified a single common factor, contrary to some previous studies that extracted separate Self-Confidence and Self-Depreciation factors. A unidimensional model for graded item responses was fit to the data. A model that constrained the 10 items to equal discrimination was contrasted with a model allowing the discriminations to be estimated freely. The test of significance indicated that the unconstrained model better fit the data—that is, the 10 items of the Rosenberg Self-Esteem Scale are not equally discriminating and are differentially related to self-esteem. The pattern of functioning of the items was examined with respect to their content, and observations are offered with implications for validating and developing future personality instruments.

Baumeister, R. F., Campbell, J. D., Krueger, J. I., & Vohs, K. D. (2003). Does high self-esteem cause better performance, interpersonal success, happiness, or healthier lifestyles? *Psychological Science in the Public Interest*, 4, 1-44.

Summary – Self-esteem has become a household word. Teachers, parents, therapists, and others have focused efforts on boosting self-esteem, on the assumption that high self-esteem will cause many positive outcomes and benefits—an assumption that is critically evaluated in this review.

Appraisal of the effects of self-esteem is complicated by several factors. Because many people with high self-esteem exaggerate their successes and good traits, we emphasize objective measures of outcomes. High self-esteem is also a heterogeneous

PARENTAL BONDING AND PSYCHOPATHOLOGY

| | | | |
|---|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
| 7. I feel that I'm a person of worth, at least on an equal plane with others. | | | |
| Strongly Agree | Agree | Disagree | Strongly Disagree |
| 8. I wish I could have more respect for myself. | | | |
| Strongly Agree | Agree | Disagree | Strongly Disagree |
| 9. All in all, I am inclined to feel that I am a failure. | | | |
| Strongly Agree | Agree | Disagree | Strongly Disagree |
| 10. I take a positive attitude toward myself. | | | |
| Strongly Agree | Agree | Disagree | Strongly Disagree |

Scoring:

Items 2, 5, 6, 8, 9 are reverse scored. Give "Strongly Disagree" 1 point, "Disagree" 2 points, "Agree" 3 points, and "Strongly Agree" 4 points. Sum scores for all ten items. Keep scores on a continuous scale. Higher scores indicate higher self-esteem.

Scale:**Instructions**

Below is a list of statements dealing with your general feelings about yourself. Please indicate how strongly you agree or disagree with each statement.

1. On the whole, I am satisfied with myself.

| | | | |
|----------------|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
|----------------|-------|----------|-------------------|

2. At times I think I am no good at all.

| | | | |
|----------------|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
|----------------|-------|----------|-------------------|

3. I feel that I have a number of good qualities.

| | | | |
|----------------|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
|----------------|-------|----------|-------------------|

4. I am able to do things as well as most other people.

| | | | |
|----------------|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
|----------------|-------|----------|-------------------|

5. I feel I do not have much to be proud of.

| | | | |
|----------------|-------|----------|-------------------|
| Strongly Agree | Agree | Disagree | Strongly Disagree |
|----------------|-------|----------|-------------------|

6. I certainly feel useless at times.

Appendix F

Please keep this copy with you

List of Centers

The following tables include listings of NGOs and hospitals that provide psychiatric care and psychological support in Lebanon. In addition to the below, listings of mental health professionals, centers, and hospitals are available at the following links:

Lebanese Psychiatric Society directory: <http://www.lpsonline.org/psychiatrists-psychiatres/>

Lebanese Psychological Association directory: <http://lpalebanon.org/en/find-a-therapist.html>

Syndicate of Psychotherapists and Psychoanalysts directory:
<http://naqaba.7host.com/users/subpage.asp?id=31>

Ministry of Public Health Hospitals and Healthcare Centers directory:
<http://www.moph.gov.lb/MedicalCare/Pages/HealthCareCenter.aspx>

Disclaimer: This list is provided to all participants in the study: "The Relationship Between Childhood Parental Bonding and the Development of Adulthood Anxiety Disorders, Self-esteem and Risk of Suicide Among Young to Middle-Aged Adults in Beirut, Lebanon.". The study team does not endorse any of the listed centers. The list is not exhaustive.

Embrace Suicide hotline: 01 341 941

AUBMC Psychiatry department and OPD: 01 350 000

Appendix G

Demographics

1. Age (in years): _____
2. Gender: _____
3. Mother's age: _____
4. Father's age: _____
5. Mother's educational background (No education, Elementary school, Middle school, High school, BA, MA, PhD): _____
6. Father's educational background ((No education, Elementary school, Middle school, High school, BA, MA, PhD)): _____
7. Parent's marital status (Married, Divorced, Widowed): _____
8. Religion: _____