

AMERICAN UNIVERSITY OF BEIRUT

PARENTING STYLES AND PARENTAL
OVERPROTECTION IN RELATION TO BASIC
PSYCHOLOGICAL NEEDS AND POSITIVE MENTAL
HEALTH OF LEBANESE YOUTH

by
ALIA OLIVIA ALIF SALEH

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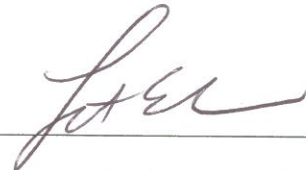
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ALIA OLIVIA ALIF SALEH

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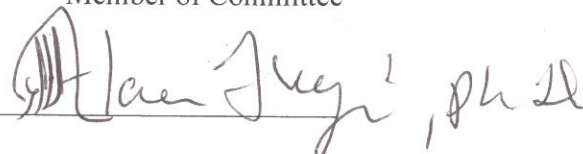
Shahe Kazarian, Ph.D, Professor
Department of Psychology

Advisor



Tima El-Jamil, Ph.D, Assistant Professor
Department of Psychology

Member of Committee



Alaa Hijazi, Ph.D, Assistant Professor
Department of Psychology

Member of Committee

Date of thesis defense: September 8, 2014

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AN ABSTRACT OF THE THESIS OF

Alia Olivia Alif Saleh for Master of Arts
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Title: Parental Styles and Parental Overprotection in Relation to Basic Psychological Needs and Positive Mental Health of Lebanese Youth.

This study investigated perceived authoritarian, authoritative and permissive parenting styles and perceived parental overprotection in relation to basic psychological needs for autonomy, competence and relatedness, negative mental health (depression, generalized anxiety, identity confusion and conduct problems), and positive mental health (emotional, psychological and social well-being).

A total of 293 Lebanese college youth (48.1% females) completed in a counterbalanced order the Parental Authority Questionnaire, My Memories of Upbringing Overprotection Subscale, the Basic Needs Satisfaction in General Scale, the Psychological State Scale, and the Short Form Mental Health Continuum Scale. Correlational analysis revealed that the authoritative parenting style was positively related to psychological needs satisfaction, while perceived parental overprotection and authoritarian parenting style were negatively related to psychological needs satisfaction. Permissive parenting style was not associated with psychological needs satisfaction. Furthermore, authoritative and permissive parenting styles were negatively related to perceived negative mental health, while authoritarian parenting style and perceived parental overprotection were positively correlated with perceived negative mental health. Moreover, the authoritative parenting style was positively related to perceived positive mental health, while perceived parental overprotection was negatively related to perceived positive mental health. The authoritarian and permissive parenting styles were not associated to perceived positive mental health.

Multiple regression analyses further explored these associations. Results showed that authoritative parenting style was a significant predictor of basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health whereas perceived parental overprotection was a significant predictor of psychological needs satisfaction, and perceived negative mental health. Implications of these results are discussed, as are the limitations of the study and future research directions.

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Parenting Styles and Parental Overprotection in Relation to Basic Psychological Needs
and Positive Mental Health of Lebanese Youth

CHAPTER I

INTRODUCTION TO PARENTING STYLES

Parenting styles refer to the pattern and combination of attitudes expressed by parents toward their children, and to the quality of interactions that characterize the nature of the parent-child relationship (Glasgow, Dombusch, Troyer, Steinberg, & Ritter, 1997). Specifically, parenting styles have been defined as “a constellation of parental attitudes and behaviors communicated by parents toward their children, and which taken together, create an emotional bond in which the parents’ behaviors are expressed” (Darling & Steinberg, 1993, p. 488).

Perceived parental styles have been investigated in order to examine their influence on functioning in life. Studies (Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Milevsky, Schlechter, Netter, & Keehn, 2007) have shown the powerful association between perceived parenting styles and practices and adolescents’ mental health and developmental outcomes; thus, parents are now known to be an important determinant in healthy development and positive psychological adjustment. Similarly, perceived inadequate parenting styles have been associated with psychological conditions such as depression and anxiety (Bennet & Stirling, 1998; Hall, Peden, Rayens, & Beebe, 2004).

A. Baumrind’s Parenting Styles

While parental practices and behaviors have been conceptualized differently, the theoretical model that has received most scholarly attention has been Baumrind’s model of parenting (Baumrind, 1967, 1971, 1991), and thus will be adopted in this study.

Diana Baumrind identified three parenting styles: authoritative, authoritarian, and permissive (Baumrind, 1967). The authoritative parenting style is marked by balance; these parents employ controlling behavior in a democratic and a non-punitive way. Authoritative parents respect their children's independence, and maintain a rearing environment of warmth, affection, and support (Baumrind, 1971, 1991).

The second parenting style, authoritarian, is characterized by highly controlling and punitive behavior, and minimal displays of affection and warmth. Parents adopting this style expect unconditional obedience and allow minimal freedom or independence (Baumrind, 1971, 1991).

Permissive parenting style is marked by low controlling behaviors and minimal exercise of authority. Permissive parents are highly nurturing, yet they fail to set appropriate standards of acceptable behaviors for their children. These parents allow their children to make their own decisions and to exercise control over their own behavior (Baumrind, 1971, 1991).

Maccoby and Martin (1983) expanded Baumrind's (1967, 1971, 1991) model and suggested the conceptualization of parenting styles along two dimensions; demandingness (parental control and supervision over children's behaviors), and responsiveness (parental warmth, nurturing, and support provided to the child). According to this framework, and in line with Baumrind's work, authoritative parents are characterized by high demandingness and high responsiveness, authoritarian parents are marked by high demandingness and low responsiveness. Maccoby and Martin's elaboration illuminated the need to differentiate between the two types of permissive parenting style, one is characterized by low demandingness and high responsiveness

(permissive-indulgent), while the other is characterized by high low demandingness and low responsiveness (permissive-dismissive or neglectful).

B. Applicability of Baumrind's Parenting Styles in the Arab Culture

Since Baumrind's model was generally constructed based on Western samples, Hill (1995) suggested that researchers must take caution in applying those parenting categories in other non-western cultures. Dwairy et al. (2006a) investigated whether these categories apply in the Arab culture. They administered the Arabic language version of the Parental Authority Questionnaire, which evaluates perceived parenting style in accordance to Baumrind's model, to a large sample of adolescents in eight different Arab countries.

Dwairy et al. (2006a) cluster analysis revealed that the three styles did not neatly categorize to distinct factors among Arab adolescents. In fact, three mixed-parenting styles clusters emerged: a controlling parenting pattern, which combined both authoritarianism and authoritativeness, a flexible parenting pattern, which was a combination of both authoritativeness and permissiveness, and an inconsistent parenting pattern, which combined both opposing parenting styles - permissive and authoritarian parenting.

Nevertheless, it is worth to note that Dwairy et al. (2006a) typology of parenting patterns has not been yet replicated. A limitation of Dwairy et al. study is that it grouped and equated all Arabs as a homogenous group to identify the parenting patterns, although in reality Arabs are quite diverse. Lebanon, for example, is described as the least traditional and most liberal and Westernized environment in the Arab World (Mahdi, 2003). Lebanon's social liberalism is due to variety of social and political factors such as the country's geographic location, its rich and diverse history, the

constant traffic into and out of the country, and the existence of the largest Christian minority in the region which has always served a cultural agent and a mediator between Europe and the Middle East (Mahdi, 2003). Therefore, it would be beneficial to reinvestigate Dwairy et al. results in the Lebanese society, since the country's absorbance of the Western culture and values might be reflected in the childrearing practices adopted by parents and the applicability of the model.

C. Parenting Styles and Gender

Whether parents apply different child-rearing practices to their daughters and son is still a topic of debate. Research appears to be inconsistent concerning whether parents employ sex-differentiated parenting, especially in different cultures. In their meta-analysis, Lytton and Romney (1991) examined whether parents employ differential parenting behavior in relation to the gender of their child. The results demonstrated that such sex-based differences in parenting do not exist, and that parents apply similar parenting practices to their daughters and sons. Smetana (1995) further supported these findings in his study, where it was demonstrated that adolescents' reports of the parenting style they experience (authoritative, authoritarian, and permissive) do not differ as a function of adolescents' gender.

On the other hand, the degree of control and warmth provided by parents seem to be influenced by the child's gender in the Arab culture. Evidence regarding the presence of sex-differentiated parenting has been provided in literature investigating parenting in the Arab world. Despite the literature on how Arab societies tends to treat girls more strictly and harshly than boys (Dwairy, 1997; Zakareya, 1999), some research findings in the Arab world have indicated that authoritarian parenting and strict parental control are applied more toward boys than for girls. For example, in Dwairy et

al. (2006a) study, the mean for the authoritative parenting style was higher for girls than for boys, and the mean for authoritarian parenting style was higher for boys than for girls. Dwairy (1997) argued that while Arab females are generally submissive, Arab males are more rebellious to rules and regulations, which makes parental control more salient for males than females.

CHAPTER II

PERCEIVED PARENTING STYLES AND MENTAL HEALTH

A large body of research investigates the relationship between perceived parenting styles and different outcomes in children and adolescent samples. These studies have generally shown a strong association between perceived parenting style and developmental and psychological outcomes; generally, authoritarian parenting is associated with negative outcomes, while authoritative parenting is related to positive outcomes.

When Lamborn et al. (1991) examined the association between perceived parenting styles and adjustment in a sample of adolescents, they found that adolescents raised by authoritative parents showed greatest positive outcomes across the variables investigated. Adolescents with authoritative parents scored lowest on measures of psychological and behavioral dysfunction (anxiety and depression measures) when compared to those raised by other parenting styles. This group also exhibited more academic competence, psychosocial development, and self-reliance, and lower levels of misconduct, drug use, and delinquency when compared to adolescents raised by authoritarian, or permissive (indulgent, neglectful) parents. Lamborn et al. also demonstrated how although adolescents with authoritarian parents exhibit low levels of

problematic behavior and do well in school, they show relatively poor self-conceptions when compared to adolescents experiencing other parenting styles.

In another study, Milevsky et al. (2007) investigated variations in adolescents' mental health in terms self-reported levels of depression and life satisfaction in relation to different maternal and paternal parenting styles. Study results indicated that adolescents with authoritative mothers exhibited higher levels of life satisfaction, and lower levels of depression when compared to adolescents with mothers from the other parenting style groups. Also, in line with Lamborn et al. (1991) findings, paternal authoritativeness correlated with lower self-reported depression level of the adolescents.

This general association between perceived parenting style and psychological and developmental outcomes has been successfully replicated in college student samples as well. For example, in Slicker and Thornberry (2002) study, it was found that college students who experience an authoritative parenting style report highest physical and psychological well-being levels when compared to individuals being reared in a more permissive or authoritarian parenting environment.

In another study, Buri, Louiselle, Misukanis, and Mueller (1988) investigated the relationship between parenting styles and the self-esteem of college students. Buri et al. found that perceived parenting styles significantly correlated with the self-esteem of the students; authoritative parenting correlated positively with self-esteem while authoritarian parenting had a negative relationship with self-esteem. Buri et al. suggested that authoritarian parents restrict the individuality of their children, therefore causing the deflation in their self-esteem. On the other hand, authoritative parents foster their children's autonomy and thus promote their personal worth and self-esteem.

In line with Lamborn et al. (1991) reports of authoritative parenting correlating with better self-perception among adolescents, Klein and O'Bryant (1996) also reported a positive correlation between recalled parental authoritative style and college students' positive self-perceptions, as measured on a variety of domains such as creativity, personal relationships, competence, and appearance. On the other hand, they reported a negative correlation between recalled parental authoritarian style and self-perceptions and perceived self-worth (Klein & O'Bryant, 1996).

Baldwin, McIntyre, and Hardaway (2007) examined how perceived parenting styles relates to optimism in a sample of undergraduate college students. Baldwin et al. found that while authoritarian parenting style is unrelated to levels of optimism, authoritative parenting style was a significant positive predictor of an individual's level of optimism.

All in all, it appears that the authoritative parenting style provides an optimal environment for facilitation of the positive development and well-being of adolescents and young adults.

A. Perceived Parenting Styles and Mental Health: Cross-cultural Considerations

The beneficial outcomes of the authoritative parenting style, and the detrimental effects of authoritarian and permissive parenting styles have been frequently demonstrated in the literature as discussed in the previous section; however, most of these studies have been conducted on American and European youth. Recently, it was questioned whether the three parenting styles and their associations would be similar in different cultures; therefore, recent literature aimed to investigate the presence of cultural differences in regard to how perceived parenting styles relate to children's development and mental health (e.g. Dwairy, Achoui, Abouserie, & Farah, 2006b). It

was suggested that even though parenting behaviors might be universal, their consequences might differ in different cultures (Hill, 1995).

Clear ethnic and cultural differences were demonstrated in studies done in a variety of non-western and minority groups. For example, when perceived parenting styles were investigated in a sample of African American girls, a positive association was found between authoritarian parenting style and positive outcomes such as self-assertiveness and independence (Baumrind, 1972). Another study by Lindahl and Malik (1999) found that perceived authoritarian parenting was not related to any externalizing problem behaviors in a sample of Latinos.

Further contradicting results regarding how perceived authoritarian parenting style relates to positive outcomes was provided in studies conducted on Asian samples. In a study by Leung, Lau, and Lam (1998) conducted on a sample of Chinese adolescents, authoritarian parenting was found to be associated with better school performance, while authoritative parenting was unrelated to achievement. This paradox effect is could be due to the different meaning associated with authoritarian parenting style in the Asian culture (Chao, 1994). Chao (1994) explained that the parental control and strictness adopted by Chinese parents is regarded a strategy that fosters organization and harmony in the family dynamics, and is rooted in the Confucian cultural concept of training (*guan*), which emphasizes hard work and discipline of the children. While authoritarian parenting style is viewed as a manifestation of hostility, harshness, and rejection among Americans, it is associated with parental care, concern, and warmth among Asians (Rohner & Pettengill, 1985).

Cultural differences of the relationship between perceived parenting styles and well-being were also investigated among Arab youth. One of the most cited works on

parenting behaviors in the Arab world is the cross-regional work of Dwairy et al. (2006b) conducted across eight different Arab countries. Dwairy et al. (2006b) studied the relationship between perceived parenting and self-reported mental health of Arab youth. The findings were reported in relation to the perceived parenting patterns (flexible, controlling, inconsistent) reported in Dwairy et al. (2006a) study. However, to further allow comparison with the vast literature using Baumrind's model, the relationship of mental health with perceived parenting was also investigated according to the typology of Baumrind's parenting styles (authoritative, authoritarian, or permissive).

In line with the studies carried out in the west, Dwairy et al. (2006b) found a positive relationship between authoritative parenting and self-reported mental health; adolescents with authoritative parenting had fewer self-reported psychological problems (anxiety, depression, identity, and conduct problems). This finding is in consistency with the vast literature where authoritative parenting has been associated with better mental health.

On the other hand, unlike findings in the west which repeatedly demonstrate a negative correlation between perceived authoritarian parenting and mental health (e.g. Lamborn et al. 1991), Dwairy et al. (2006b) found that this style of parenting was almost unrelated to Arab youth's mental health. One possible explanation for this inconsistency in findings is that Arab adolescents may be prescribing a different meaning to the authoritarian parenting style, as the Chinese (1994) do, as previously discussed. In fact, Hatab and Makki (1978) reported that Arab youth do not find authoritarian parenting oppressing; they even report satisfaction with their parental authoritarian practices. Arab children seem to consider these authoritarian practices as a

normal part of their parents' role (Dwairy, 1997), and thus they are unsusceptible to it. The other explanation provided by Dwairy et al. (2006b) for the lack of association between this parenting style and diminished mental health is that, unlike in the Western culture, the authoritarian parenting style is congruent with the Arab authoritarian value system, where obedience is a central educational value (Dwairy, 1997). Dwairy et al. suggested that it is the incongruence between parenting style and society's value system that causes diminished mental health.

It appears that the effects of perceived parenting styles might be culturally specific rather than culturally universal. It would be beneficial to reexamine these results in the context of the Lebanese culture. Due to its Westernization in relation to its neighboring countries and its absorption of Westernized values, one can expect that Lebanese youth will have difficulties in coping with an authoritarian parenting style. Thus, the authoritarian parenting style is expected to have a negative influence on Lebanese youth mental health and psychological outcomes.

CHAPTER III

PARENTAL OVERPROTECTION AND MENTAL HEALTH

Dwairy et al. (2006b) cross-regional study investigating the relationship between perceived parenting and mental health looked at perceived parenting in the Arab culture in terms of Baumrind's parenting styles, which encapsulates parenting behavior along the two dimensions of demandingness and responsiveness. Nevertheless, this perspective alone does not capture all aspects of parenting that might be relevant to the Arab culture. One parenting behavior that seems to be prevalent in the Lebanese culture is the concept of parental overprotection. Although parental overprotection is conceptually related to the dimension of demandingness of Maccoby and Martin's

(1983) in that it is also concerned with parental control, supervision, and demands employed on their children, parental overprotection further includes other more emotional and psychological elements such as intrusiveness - a tendency for parents to engage in excessive physical or social contact with their child, and to have exaggerated concerns about the child's well-being and safety (Arrindell et al., 1999; Levy, 1970; Thomasgard & Metz, 1993), which are not captured by the dimension of demandingness alone and the three parenting styles of Baumrind.

Levy (1970) was the first to study the concept of parental overprotection. He outlined overprotection as being characterized by four main behaviors: prolongation of infantile behavior (e.g. interfering in their children's studies), excessive physical or social contact (e.g. accompanying their children to social events), discouragement of autonomous behavior (e.g. confronting their children's enemies), and either an excess or absence of control. Parker (1983) later added more elements to Levy's conceptualization of parental overprotection, such as parental intrusion and encouragement of dependency. While parents' tendency of protecting their children from danger and threat is considered normal, overprotective parents are characterized by a form of protection viewed as extreme taking into account the level of development of the child, and when compared to other parents (Thomasgard & Metz, 1993).

The prevalence of this parental construct in the Lebanese culture could be moderated by parental anxieties, which are fostered by the continuous presence of political uncertainty and instability in Lebanon (Mahdi, 2003). Parents with high anxiety tend to be more overprotective of their children due to their own cognitive biases towards threat, increased sensitivities to their child's distress, and unrealistic perceptions of danger (Husdon & Rapee, 2004). Simpson and Belsky (2008) argue that

in dangerous and unstable environments, parents tend to adopt more proximal parenting strategies to ensure the protection and survival of their children, hence possibly explaining why this strategy is common among Lebanese parents.

Parental overprotection has been associated to negative psychological and developmental outcomes. The interference with autonomy and the failure of healthy psychosocial development created by this overprotective parent-child relationship often leads to dysfunction, maladaptive behavior, and psychological conditions (Lowinger & Kwok, 2001). For example, when Muris and Merckelbach (1998) investigated the relationship between perceived parental child rearing behaviors and anxiety symptomatology in a sample of children, they found that perceived parental overprotection is significantly positively related to anxiety, particularly generalized anxiety, separation anxiety, and phobia.

Furthermore, when Bennet and Stirling (1998) looked at the reported parental practices of individuals with high trait anxiety, they found these individuals' parents are characterized by high overprotectiveness when compared to parents of individuals with low trait anxiety. Silove, Parker, Hadzi-Pavlovic, Manicavasagar, and Blaszczynski (1991) further provided evidence for this association in a clinical setting. In their study, Silove et al. looked at reported parental bonding of clinically anxious individuals (panic or generalized anxiety) and found that these individuals reported significantly higher parental overprotection in comparison to matched controls.

Holmbeck et al. (2002) provided further evidence how parental overprotection is related to children's negative psychological outcomes. They demonstrated that perceived parental overprotection is associated with diminished behavioral autonomy, which is consequently related to more externalizing symptoms and adjustment

problems. Furthermore, Holmbeck et al. reported a positive relationship between parental overprotection and child depressive symptoms.

Hall et al. (2004) further investigated psychological outcomes related to perceived parental overprotection. Specifically, Hall et al. looked into the relationship between parental bonding (parental care and protection) and overall mental health in terms of self-esteem, depressive symptoms, and negative thinking in a sample of college women. They found that parental bonding comprised of high overprotection predicted worse mental health, in terms of more depressive symptoms, more frequency of negative thoughts, and lower self-esteem.

All together, these results demonstrate the detrimental effects of parental overprotection on psychological outcomes. Therefore, it would be beneficial to look at this culturally relevant parenting aspect and investigate how it relates to self-reported mental health of Lebanese youth.

CHAPTER IV

POSITIVE MENTAL HEALTH: KEYES' MODEL

A limitation of Dwairy et al. (2006b) cross-regional study and other studies on perceived parenting behavior and mental health is their focus on negative mental health rather on positive mental health. Literature on mental health is generally limited by its focus only on the negative aspects of subjective well-being, such as the absence of depression or anxiety, to diagnose mental health; thus, individuals are typically considered either mentally ill or presumed mentally healthy. Recently, however, mental health has been defined by the World Health Organization (WHO) as not only the absence of mental illness, but also as the positive state of physical, psychological, and social well-being in which individuals recognize their own abilities, have the ability to

deal with daily life stresses, can work effectively and productively, and contribute to their own communities (WHO, 2004). Thus, with this modern move towards positive psychology, some studies have shifted focus and moved beyond the tradition of examining illness and abnormalities, by looking at strengths and positive constructs such as hope or resilience. However, this view is also limited by its narrow focus of looking at only small units and aspects of mental health, which is not comprehensive enough to reflect a multidimensional level of an individual's positive mental health.

Keyes' model of mental health (2002) is an attempt to address these limitations in the literature and thus looks at mental health not only as a positive phenomenon, but also from a multidimensional perspective. It would be important to extend research on relation of parental styles and parental overprotection to positive mental health indicators rather than restrict it to negative mental health outcomes.

Instead of focusing only on one aspect of well-being or on the absence of mental illness, Keyes' (2002) model offers a more comprehensive outlook by looking at mental health from three aspects: emotional, psychological, and social well-being. Emotional well-being concerns satisfaction with life, happiness, and positive affect. Psychological well-being is concerned with how individuals are thriving in their personal lives, and whether they maintain a clear sense of purpose in life and self-acceptance (Ryff, 1989). Social well-being addresses the extent to which individuals have optimal social functioning and are socially engaged and integrated in their communities (Keyes, 1998).

Keyes' comprehensive definition of well-being is based upon both the hedonic and the eudaimonic traditions of well-being. The hedonic tradition portrays well-being as solely being comprised of feelings of happiness and pleasant emotions, while the

eudaimonic tradition depicts well-being in terms of an individual's psychological and social functioning in daily life (Keyes, 2002).

According to this model, flourishing is the mental health state where an individual has high levels of subjective, psychological, and social well-being, while languishing is characterized by low levels on these three domains of well-being. Individuals with moderate mental health have average levels on these measures and thus are considered neither flourishing nor languishing.

An important question concerns the relationship between the construct of positive mental health and the construct of mental illness. According to Keyes (2005), these two constructs are different: one denotes whether mental health is present or absent, while the other represents whether mental illness is present or absent. Keyes (2005) conducted a study to investigate the one-factor and the two-factor model of mental health. He found that the measures of positive mental health (emotional, psychological, and social well being) loaded on a separate factor, while measures of psychopathology loaded on another distinct one. These results strongly support that the model with two related factors of mental health and mental illness is a better fit than a single factor model. This shows that mental health and mental illness are not forming a single bipolar dimension, but in fact, are constructs on separate bipolar continuums (Keyes, 2005). This indicates that the treating mental illness cannot automatically guarantee the presence of positive mental health. Furthermore, this model postulates that an individual suffering from mental illness can simultaneously have quite high positive mental health.

Overall, Keyes (2005) reported that overall psychological functioning is better predicted by the combination of both positive mental health and mental illness

diagnosis, which shows the complementarity of these two constructs. This all together demonstrates the necessity for the assessment of positive mental health in addition to the diagnosis of mental illness when studying mental health; complete mental health cannot be ensured unless there is both evidence of absence of mental illness and presence of positive mental health.

CHAPTER V

BASIC PSYCHOLOGICAL NEEDS SATISFACTION

In addition to extending the relationship between perceived parenting behavior and negative mental health to positive mental health, this study will further examine how perceived parenting styles and parental overprotection relate to basic psychological needs satisfaction. A basic principle on the self-determination theory (Deci & Ryan, 1985, 1991, 2001) is that for individuals to reach optimal motivation and well-being, they need to experience satisfaction of their basic innate psychological needs for autonomy, competence, and relatedness in their daily life. Autonomy concerns feeling that one's behaviors are self-caused, rather than controlled or influenced by external factors; competence relates a sense of mastery and effectiveness regarding one's behaviors and activities; and relatedness is concerned with feeling meaningful support, care, and connection from people around, as opposed to feeling alienated and lonely (Deci & Ryan, 2000). These universal and cross-developmental needs must to be fulfilled for optimal functioning and well-being (Deci & Ryan, 2000).

The relationship between parenting practices and the level of satisfaction of these three basic psychological needs has been investigated in recent literature. In one recent study conducted on a sample of Arab Jordanian adolescents, Ahmad, Vansteenkiste and Soenens (2013) reported that higher psychological control employed

by parents was associated to lower satisfaction of all three basic psychological needs of adolescents. On the other hand, higher parental responsiveness was associated to higher satisfaction of all three psychological needs of adolescents. In another study, Schiffrin et al. (2013) investigated how “helicopter” parenting behaviors, such as high involvement and high control of parents, affect college students’ basic psychological needs satisfaction. The study findings demonstrated that these parental behaviors were associated with lower levels of basic psychological needs of autonomy, competence, and relatedness satisfaction.

Soenens and Vansteenkiste (2010) explained how a high level of parental control could have a thwarting effect on all three psychological needs satisfaction. High control employed by parents can consequently make children feel that they are pressured to undertake activities that are not reflecting their own values and preferences, and thus lower their autonomy satisfaction level. Furthermore, high control employed by parents would also make children feel unable and unskilled to deal with challenges successfully, and hence, lower their competence satisfaction. And finally, due to the low warmth provided by controlling parents, children may also develop insecurities regarding their relationships with people around them, and hence lower their need for relatedness satisfaction.

All in all, these results demonstrate the strong impact of perceived parenting on basic psychological needs satisfaction, and therefore, prove the necessity to examine this outcome in the present study.

CHAPTER VI

AIMS AND HYPOTHESES

One primary aim of the study is to reevaluate the applicability of Baumrind’s

model of parenting styles in the Lebanese context.

A second primary aim is to examine the relationship of perceived parenting styles not only in relation to negative mental health, as was done by Dwairy et al. (2006b), but also to positive mental health, as conceptualized by Keyes (2002), and to basic psychological needs satisfaction, as conceptualized by Deci and Ryan (1985, 1991, 2001).

A third primary aim of the study is to examine the how perceived parental overprotection relates to negative mental health, positive mental health, and basic psychological needs satisfaction in Lebanese youth.

An additional aim of the study is to examine gender-based differences in perceived parenting practices among Lebanese youth.

A secondary aim of the study is to assess the structure and reliability of the Arabic scales that were used in this study in the Lebanese context.

Hypothesis 1. Perceived authoritative parenting style scores will correlate negatively with negative mental health scores.

Hypothesis 2. Perceived authoritarian parenting style scores will correlate positively with negative mental health scores.

Hypothesis 3. Perceived permissive parenting style scores will correlate positively with negative mental health scores.

Hypothesis 4. Perceived parental overprotection scores will correlate positively with negative mental health scores.

Hypothesis 5. Perceived authoritative parenting style scores will correlate positively with positive mental health scores.

Hypothesis 6. Perceived authoritarian parenting style scores will correlate

negatively with positive mental health scores.

Hypothesis 7. Perceived permissive parenting style scores will correlate negatively with positive mental health scores.

Hypothesis 8. Perceived parental overprotection scores will correlate negatively with positive mental health scores.

Hypothesis 9. Perceived authoritative parenting style scores will correlate positively with basic psychological needs satisfaction scores.

Hypothesis 10. Perceived authoritarian parenting style scores will correlate negatively with basic psychological needs satisfaction scores.

Hypothesis 11. Perceived permissive parenting style scores will correlate negatively with basic psychological needs satisfaction scores.

Hypothesis 12. Perceived parental overprotection scores will correlate negatively with basic psychological needs psychological satisfaction scores.

Hypothesis 13. Perceived parental styles scores and perceived parental overprotection scores will significantly predict basic psychological needs satisfaction, negative mental health, and positive mental health.

This study will contribute to literature concerning the relationship between perceived parenting and mental health by extending Baumrind's parenting styles to parental overprotection, a culturally relevant variable. Also, it will reexamine the applicability of Baumrind's model of parenting styles among Lebanese youth.

Finally, the study will also extend the relationship between perceived parenting behavior and negative mental health to positive mental health, in accordance to Keyes' model of positive mental health, as well as to basic psychological needs satisfaction as conceptualized by Deci and Ryan (1985, 1991, 2001).

CHAPTER VII

METHODOLOGY

A. Research Design

The research employed a quantitative non-experimental research design, in which surveys were used with Lebanese college youth for data collection and examination of the aims of the study and its hypotheses. Despite the general use of adolescents and children samples in literature investigating perceived parental styles, the choice of using university students in a Lebanese community is justified; unlike in Western societies, Arab youth generally continue to experience parenting typically until marriage, if not after.

For data analysis, factor analysis and reliability analysis was used to test the psychometric properties of the Arabic measures. Correlations and a series of multiple regression analyses were also used to test the hypotheses.

B. Participants and Procedure

A total of 300 college youth from the American University of Beirut participated in the study. Participants were recruited using non-random convenience sampling. Students enrolled in the Psychology 201 course at AUB have an option to earn up to 3 percentage points on their final course grade by participating in research or writing a brief report on an article from a psychological journal. Students enrolled in Psychology 201 received an announcement document regarding this research, which included some information about the purpose and procedure of the study, and were presented with an option to participate in order to receive one extra percentage point on their final Psychology 201 grade, along with other alternatives available. The document specified that participants have to be Lebanese, 18-25 years old, and able to read and understand

Arabic. Interested participants were directed to a Doodle page (an online scheduling tool) through a provided link, where they anonymously set up an appointment by choosing the most suitable time for them to go to a room reserved by the researcher, read the informed consent form, and proceed to complete the questionnaires after they gave their consent to participate.

Since the desired number of participants was not achieved through the Psychology 201 pool, further participant recruitment was accomplished by directly approaching students in the American University of Beirut campus, informing them about the study, and presenting them with the questionnaires if interested and upon giving consent.

Different locations on campus were chosen for recruitment to ensure the heterogeneity and representativeness of the sample such as: Main Gate, West Hall Area, Green Oval, Medical Gate, Upper and Lower campus cafeterias, Charles W. Hostler Student Center, Bechtel Engineering Department, Suliman S. Olayan School of Business, Architecture and Graphic Design Department, and Biology/Physics/Chemistry/Nutrition and Food Sciences Departments.

Students from the Psychology 201 course pool and AUB campus who showed interest to participate in the study were presented with an informed consent form, in which the confidentiality and anonymity of participation were explained, in addition to any foreseeable benefits and risks of participation. It also informed the participants that participation is completely voluntary, and that they have the right to refuse to participate without penalty and that if they chose to participate they could discontinue participation or withdraw from the study at any point in time without providing reasons and without penalty. The informed consent presented to the Psychology 201 students (Appendix C)

was slightly different from that provided to the students recruited on campus (Appendix D) in that it included information regarding receiving course credit for participation.

At the bottom of the informed consent form, participants were asked to put a check mark on the line provided to indicate their agreement. Upon acceptance, they were asked to fill the questionnaires, which included the instruments measuring the variables of interest, and required approximately 15-20 minutes to complete. Administration of the scales was counterbalanced in order to control for sequence and order effects; therefore, two versions were created. Nevertheless, the measure of perceived negative mental health (Psychological State Scale) did not follow the measure of perceived positive mental health (Mental Health Continuum Short-form) or vice versa.

After filling out the questionnaires, Psychology 201 participants were presented with information regarding how to proceed in order to receive the extra course credit.

C. Instruments

The Arabic versions of all of the instruments were used in the present study as they had been previously translated into the Arabic language and studied in Arab countries. The Arabic versions of scales used and the demographic sheet (age, gender and nationality) are provided in Appendix E.

1. The Parental Authority Questionnaire (PAQ; Buri, 1991; Dwairy, 2004).

The Arabic version of the PAQ (Dwairy, 2004) was used as the measure of perceived parenting styles. The PAQ consists of 30 items measuring parents' authoritativeness (10 items), authoritarianism (10 items), and permissiveness (10 items). For each item on this scale, individuals are asked to indicate, on a 5-point Likert scale ranging from "1= strongly disagree" to "5= strongly agree", how the statement presented applies to their

parents' behaviors. Scores on each parental style range from 10 to 50, and the higher score on a particular category of parenting signifies the parenting style of that individual's parents. Buri (1991) reports high test-retest reliability of this instrument, ranging from .77 to .92, and high internal consistency with Cronbach's alpha values of .74 and higher for the subscales.

Dwairy (2004) translated and validated this instrument to Arabic. The original PAQ includes two identical questionnaires, one for the mother and the other for the father; however, as Dwairy et al. suggested, since the Arab society and Arab parenting is considered collective and both mothers and fathers use similar methods of socialization, one form should be used pertaining to both the mother and the father (the collective parenting unit of Ahel).

In line with Dwairy et al. (2006a) suggestion of using one parental unit (Ahel) to investigate parental behaviors in the Arab culture, respondents in the study were asked to rate their combined parents' parenting styles, rather than separately for their mothers and fathers. Dwairy et al. (2006a) validated the Arabic version of PAQ on a sample of Arab adolescents in different countries (Saudi Arabia, Yemen, Egypt, Algeria, Jordan, Lebanon, and Palestine). The scale showed adequate internal consistencies in the form of Cronbach alpha coefficients for the authoritarian and for authoritative parenting subscales (alphas of .72 and .79 respectively) but not for permissive parenting which had an alpha of .61.

2. My Memories of Upbringing Overprotection Subscale (Egna Minnen Beträffande Uppfostran, EMBU; Perris, Jacobsson, Lindstrom, Von Knorring, and Perris, 1980; Abdel-Khalek, 2006). The EMBU is a measure of parental rearing behaviors and practices as remembered by adults. The s-EMBU is a modified, 23-item,

short form of the original instrument, and consists of three subscales: rejection, emotional warmth, and overprotection. The 9-items Arabic version of the overprotection subscale of the EMBU (Abdel-Khalek, 2006) was used as the measure of perceived parental overprotection. For each item on this scale respondents are asked to indicate how the statement presented applies to their parents. The Likert scale response options are 1= no, never, 2= yes, but seldom, 3= yes, often, and 4= yes, most of the time; a higher score on this scale indicates higher parental overprotection. In line with Dwairy et al. (2006a) suggestion of using one parental unit (Ahel) to investigate parental behaviors in the Arab culture, respondents in the study were asked to rate their combined parents' overprotection, rather than separately for their mothers and fathers. The overprotection subscale of the s-EMBU has demonstrated good psychometric properties with Cronbach's alphas of high magnitude ($\alpha > .7$) in a variety of national samples (e.g. Arrindell et al., 1999; Arrindell et al. 2001). The Arabic adaptation of s-EMBU was carried out by Abdel-Khalek (2006) as part of a cross-cultural study and thus will be used in this study; however, the factor structure and reliability of this Arabic version has not been previously examined.

3. The Basic Needs Satisfaction in General Scale (BNSG-S; Gagne, 2003).

An Arabic version of the BNSG-S was used as a measure of basic psychological needs satisfaction. The BNSG-S is used to measure perceived satisfaction of the basic psychological needs for autonomy, competence, and relatedness in life. This scale was conceptually developed based on the self-determination theory (Deci & Ryan, 2000). The 21 items on this scale are rated on a 7-point Likert scale; response options vary from (1=Not at all true) to (7=Definitely true). A higher total score on this measure represents greater perceived satisfaction of the basic psychological needs for autonomy,

competence, and relatedness in life. This instrument has good psychometric properties with Cronbach alpha ($>.8$) for the total measure, and internal consistencies of .61 to .81 for the autonomy subscale, .60 to .87 for the competence subscale, and .61 to .90 for the relatedness subscale (Deci et al., 2001; Gagne, 2003; Johnston & Finney, 2010). The instrument was adapted to Arabic by Olayan and Al-Kahlout (2005) as part of a study that investigated the basic psychological needs satisfaction of Palestinian children with hearing impairment; however, the factor structure and reliability of the Arabic version has not been investigated.

4. The Psychological State Scale (PSS; Hamuda & Imam, 1996). The PSS is an Arabic measure of perceived negative mental health. Dwairy's et al. (2006b) adapted version of this scale is comprised of 20 items, and was used as a measure of perceived negative mental health in this study. Items on this measure relate to depression, generalized anxiety, identity confusion, and conduct problems. For each item on this measure, respondents are asked to indicate whether they endorse the psychological states (2=yes, 1=not sure, 0=no). Higher scores on this measure indicate more negative mental health. Dwairy et al. (2006b) reported a Cronbach alpha coefficient of $\alpha=.88$ for this 20-item scale.

5. The Short Form Mental Health Continuum Scale (MHC-SF; Keyes, 2002; Salama-Younes, 2011). The Arabic version of the MHC-SF (Salama-Younes, 2011) was used in this study as a measure of perceived positive mental health. The MHC-SF is derived from the long form (MHC-LF) and is used as a measure of positive mental health as conceptualized by Keyes (Keyes, 2002). It consists of 14 items chosen to best represent overall positive mental health, that is, emotional well-being, psychological well-being, and social well-being. A series of items are provided and

respondents are asked to specify the frequency with which they experienced each of the feelings described in the past month. Response options on this instrument are 1= never, 2= once or twice, 3= about once a week, 4= 2 or 3 times a week, and 5= almost everyday, and 6= everyday. A higher score on this measure indicates higher positive mental health (i.e. flourishing).

The instrument has shown excellent overall internal consistency and adequate internal consistency in a variety of samples (e.g. Keyes et al., 2008; Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2010). The adapted Arabic version of MHC-SF has also shown good total reliability ($> .70$) when administered to an Egyptian sample of adolescents (Salama-Younes, 2011) The Cronbach alphas for the emotional well-being, psychological well-being, and social well-being subscales in that sample were $\alpha=.74$, $\alpha=.70$, and $\alpha=.49$ respectively.

The factor structure and reliability of all scales as per the present study will be reported in the Results presented below (see section D and E).

CHAPTER VIII

RESULTS

A. Sample Characteristics and Demographics

The number of students who participated in the study was initially 300; however, 7 cases were univariate and multivariate outliers (see section B;2) and thus were excluded from the analysis. Therefore, the final number of students included in the analysis was 293 students. Table 1 provides a summary of the demographic characteristics of the sample. The final sample size was almost equally representative of males and females; it included 141 (48.1%) females and 152 (51.9%) males. All participants were between the ages of 18 and 25; however, the majority of them were between the ages of 18 and 22 (86.3%). The average age for participants was 20.43 years (SD=1.81). The mean age of female participants was of 20.23 years (SD=.16), and the mean age of male participants was of 20.61 years (SD=.14). The majority of the participants (77.8%) had only the Lebanese nationality and 22.2% had the Lebanese nationality and another nationality.

Table 1

Demographic Information of Participants

		N	%
Gender	Females	141	48.1
	Males	152	51.9
Age	18-22	253	86.3
	23-25	40	13.7
Nationality	Lebanese	228	77.8
	Lebanese + Another Nationality	65	22.2

B. Preliminary Analysis

1. Missing Value Analysis. Prior to analysis the data was checked for accuracy of entry and missing values. Analysis of missing values indicated a random and insignificant pattern of missing data, with less than 5% missing on the independent variables (i.e. perceived parenting styles; perceived parental overprotection), and the dependent variables (i.e., perceived positive mental health; perceived negative mental health; and perceived basic psychological needs satisfaction). Since these did not exceed the 5% cutoff (Tabachnik & Fidell, 2013), replacing or accounting for missing values was not deemed necessary.

2. Univariate and Multivariate Outlier Analyses. Perceived positive mental health, perceived negative mental health, perceived basic psychological needs satisfaction, perceived parenting styles, and perceived parental overprotection were examined for univariate and multivariate outliers.

Univariate outliers were inspected through Z-scores and box plots. Univariate Outlier Analysis using z-scores found one outlier on the perceived negative mental health (case 100), one on perceived parental overprotection (case 157), and two on the perceived authoritarian parenting style (cases 101 and 202).

Multivariate outliers were inspected through Mahalanobis distances using SPSS SYNTAX, with $p < .001$ criterion. Four multivariate outliers greater than $\chi^2(7) = 24.32$, were detected (cases 101, 211, 265, 290).

All univariate and multivariate outliers identified were deleted from the data set since they were affecting the normality of the variables and including them can jeopardize further analysis.

3. Normality. Normality of the variables was first examined visually through histograms and inspected through Z-scores of skewness and kurtosis. Perceived positive mental health, perceived basic psychological needs satisfaction, perceived authoritarian parenting style, and perceived permissive parenting style were all normally distributed, with Z-scores skewness and kurtosis below 3.29. However, Z-scores for skewness for perceived parental overprotection is 4.19, and for perceived authoritative parenting style is 3.94 indicating that scores deviate slightly from a normal distribution. Z-score for skewness for the perceived negative mental health was 6.32 which is considerably higher than the absolute threshold value 3.29, indicating that scores deviate greatly from a normal distribution. The skewness of the distribution was expected as the prevalence of psychological problems in a sample of university students is not expected to be very high; however, since such high skewness can influence further analysis, transformation was applied. The shape of the distribution indicated that logarithm transformation is required to enhance normality (Tabachnick & Fidell, 2013). Z-score for skewness for the transformed variable was calculated and was equal to 3.49 a value considerably closer to the threshold 3.29. Thus, the logarithmical transformation of the perceived negative mental health successfully reduced the substantial positive skewness.

C. Order Effects

An independent samples t-test examined the effects of counterbalancing on perceived positive mental health, perceived negative mental health, and basic psychological needs satisfaction. There were N=141 participants with the perceived positive mental health scale presented at the beginning of the questionnaire, and N= 152 participants presented with the perceived negative mental health scale at the beginning of the questionnaire. Levene's test was non-significant, with $F(1, 291) = 2.17, p > .05$, F

(1, 291) = .18, $p > .05$, and $F(1, 291) = .47$, $p > .05$ indicating that the assumption of homogeneity of variance was met.

The t-test was non-significant for perceived positive mental health, perceived negative mental health, and basic psychological needs satisfaction, with $t(291) = -.51$, $p > .05$, $t(291) = -.25$, $p > .05$, $p > .05$ and $t(291) = 1.17$, $p > .05$ respectively, indicating that there were no differences on the DVs between both versions of the questionnaire. Controlling for order effects in the data analysis was not necessary as these effects on the DVs were non-significant.

D. Psychometrics

The factor structure of the perceived parenting styles scales, perceived parental overprotection, perceived basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health scales were examined.

1. Statistical Assumptions. The sample size of 293 participants exceeds the minimum desirable criterion of 250 participants for a factor analysis as per Cattell (1978) (in MacCallum, Widaman, Zhang & Hong, 1999, p84). Bartlett's test of sphericity was adequate (significant) for the perceived parenting styles scales, perceived parental overprotection, basic psychological needs satisfaction, perceived negative mental health, and positive mental health ($X^2(435) = 2728.22$; $p < .05$; $X^2(36) = 583.57$; $X^2(210) = 1847.05$, $p < .05$; $X^2(190) = 1816.94$, $p < .05$; $X^2(91) = 1666.66$, $p < .05$, respectively). Furthermore, Kaiser-Meyer-Olkin values for the perceived parenting styles, perceived parental overprotection, basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health, were above .7 (KMO = .89; KMO = .84; KMO = .85; KMO = .84; KMO = .89, respectively), which shows that the dataset is factorable. The determinant was greater

than .00001 for all scales and no correlations between the items of each scale were above .8. Also, when the correlations table was examined to assess for multicollinearity, it was evident that no two variables were highly correlated at $>.80$; the largest correlation was $r=-.59$ between perceived positive mental health and perceived negative mental health. Therefore, there were no multicollinearity or singularity problems. Measures of sampling adequacy (MSA) found on the anti-image correlation matrices were well above .5, thus indicating that none of the variables needed exclusion from the analysis.

2. Parental Authority Questionnaire. Findings in literature have repeatedly supported the three-factor structure of the Parental Authority Questionnaire; hence three factors were expected to emerge in our own factor analysis. A three-component factor analysis with principal component extraction and direct oblimin rotation was conducted on the 30 items of the parental authority questionnaire measure. The three components that emerged from this analysis were in accord with the hypothesized structure. Ten items loaded on the first factor, which was the authoritative parenting style factor; Ten items loaded on the second factor, a permissive parenting style factor; finally, ten items loaded on the third factor, a authoritarian parenting style factor (Check Appendix F for factor loadings of the pattern matrix). A total of 42.70% of the variance was explained by the three factors together.

Item loadings ranged from fair (.42) to good (.82) for each of the three factors. With a cut off of 0.4 for inclusion of an item on a factor, no cross loadings were found. Internal consistency analysis showed that the three factors were reliable (authoritative parenting style, Cronbach's $\alpha=.86$; permissive parenting style, $\alpha=.76$; authoritarian parenting style, $\alpha=.85$). In sum, the factor analysis provided good factor solutions and

good structure.

3. Short-form Egna Minnen Beträande Uppfostran (s-EMBU) ‘My Memories of Upbringing’ Overprotection Subscale. The s-EMBU provides a three factorially derived subscale measures of parental rejection, emotional warmth, and overprotection. Only the items belonging to the parental overprotection subscale were used in this study, hence it was expected that all items will load together on one factor since they measure one concept, overprotection. Exploratory factor analysis with principal component extraction and direct oblimin rotation was conducted on the 9 items of the parental overprotection scale. When factors were extracted based on eigenvalues greater than one, factor analysis revealed a three-factor solution; the first component included 6 items and accounted for 38.56 % of the variance, with the second and third component accounting for 11.47 % and 11.34 % respectively. Three items did not load on the main factor (see Appendix F for factor loadings of the pattern matrix). However, reliability analysis indicated acceptable reliability for the 9-item scale, with Cronbach’s $\alpha = .78$. The items appear to be measuring a single concept (overprotection) and thus revising the scale (i.e., deleting the 3 items) was not deemed necessary.

4. The Basic Needs Satisfaction in General Scale. Despite the common use of this scale to measure the basic needs satisfaction of autonomy, relatedness, and competence, its factor structure has not been formally validated in the literature (Johnston & Finney, 2010). A three-component factor analysis with principal components extraction and varimax rotation was conducted on the 21 basic need satisfaction in general scale items. The three factors that emerged from this analysis were not in accord with the hypothesized structure. A total of 45.91% of the variance was explained by the three factors together.

Thirteen items loaded on the first factor including 5 items measuring autonomy, 5 items measuring relatedness, and 3 items measuring competence; four items loaded on the second factor including the other 3 items measuring relatedness and 1 item measuring autonomy; and finally, four items loaded on the third factor which included 3 out of the 6 items measuring competence and 1 item measuring autonomy. Factor loadings of the pattern matrix are provided in Appendix F. The three factors had good reliabilities, with Cronbach's $\alpha = .79$, $\alpha = .75$, and $\alpha = .69$ respectively.

5. The Psychological State Scale. Hamuda and Imam (1996) developed a 135-item scale in the Arabic language to assess 27 psychological states; however, for the purpose of the present study, Dwairy et al. (2006b) 20-item shortened version was used, which assesses only 4 psychological states (depression, anxiety, conduct, and identity problems). While the factor structure of the 135-item scale and other shortened versions of this scale had been studied empirically (e.g. Dwairy, 2004), the factor structure of Dwairy et al. 20-item version used in the present study has not been assessed.

A 4-component factor analysis with principal components extraction and oblimin rotation was conducted on the 20 psychological state scale items. The four factors that emerged from this analysis were not in accord with the hypothesized structure. A total of 51.33% of the variance was explained by the four factors together. Six items loaded on the first factor, which was a combination of 3 items measuring depression and 3 items measuring anxiety. The second factor included all of the 5 items measuring conduct problems, the third factor included 4 of the 5 items measuring identity confusion, and the fourth factor was comprised of a mixture of 2 items measuring anxiety, 2 items measuring depression, and 1 item measuring identity confusion. (Check Appendix F for factor loadings of the pattern matrix). In sum, this

factor analyses showed strong identity and conduct problems factors; however, weak depression and anxiety factors which seemed to be intermixed and load on one common factor of internalizing problems. Reliability analysis showed that the first and third factors had very good reliabilities, with Cronbach's $\alpha = .80$ and $\alpha = .77$ respectively. The second and fourth factors had acceptable reliabilities with Cronbach's $\alpha = .63$ and $\alpha = .61$ respectively.

Based on the scree plot and factor loadings observed on the emerging factors, a three-component factor analysis was conducted. When a three-factor solution was forced, the three factors extracted had better reliabilities of Cronbach's $\alpha = .80$, $\alpha = .68$, and $\alpha = .77$. The first factor included 4 out of the 5 items measuring depression, and all of the 5 items measuring anxiety. The second factor included the 5 items measuring conduct problems, 1 item measuring depression, and 1 item measuring identity problems. The third factor included 4 of the 5 items measuring identity problems.

6. The Short Form Mental Health Continuum Scale. The three-factor structure of the mental health continuum short form (emotional, psychological, and social well-being) has been repeatedly confirmed in previous literature (e.g. Keyes et al., 2008, Lamers et al., 2011). Hence, a three-component factor analysis with principal components extraction and oblimin rotation was conducted on the 14 mental health continuum short form scale items. The three components that emerged from this analysis were not in accord with the hypothesized structure. A total of 58.71% of the variance was explained by the three factors together.

Seven items loaded on the first factor, four items loaded on the second factor, and three items loaded on the third factor (Check Appendix F for factor loadings of the pattern matrix). The first factor had very good reliability, with Cronbach's $\alpha = .82$. The

two other factors had good and acceptable reliabilities with Cronbach's $\alpha=.78$ and $\alpha=.68$. The first factor included all of the 3 items measuring emotional well-being, 3 out of the 5 items measuring social well-being, and 1 item measuring psychological well-being. The second factor included 3 out of the 6 items measuring psychological well-being, and 1 item measuring social well-being, along with one psychological well-being item cross-loading on this factor. The third factor included 2 items measuring psychological well-being and 1 item measuring social well-being, along with one psychological well-being item cross-loading on this factor.

Based on the scree plot and factor loadings observed on the emerging factors, a two-component factor analysis was conducted. When a two-factor solution was forced, both the first factor with the 9 items extracted and the second factor with the 5 items extracted had very good reliabilities of Cronbach's $\alpha=.85$ and $\alpha=.81$ respectively. The first factor included all of the three emotional well-being items, along with 4 out of the 5 items measuring social well-being and 2 items measuring psychological well-being. The second factor included the other 4 items measuring psychological well-being, along with 1 item measuring social well-being.

E. Reliability Analysis

Factor analysis revealed that the structure of the parental authority questionnaire was in accord with the hypothesized structure of that instrument. The authoritarian, authoritative, and permissive parenting styles emerged as three distinct factors with relatively high factor loadings of items (range .42 to .82) and acceptable internal consistencies. Consequently, scores of the three parenting styles, along with the perceived parental overprotection variable, which also had good internal consistency, were related to the outcome measures. However, since the structure of the outcome

measures (basic psychological needs satisfaction, negative mental health, and positive mental health) were not totally in accord with their hypothesized structures, only the total scores of these scales were used in the main analysis.

As can be seen in Table 2, all the Arabic scales used in the present study had Cronbach's α above .70, suggesting acceptable reliabilities.

Table 2

Reliability Analyses of the Scales

Scale	Cronbach's α
Authoritarian Parenting Style	.85
Authoritative Parenting Style	.86
Permissive Parenting Style	.76
Parental Overprotection	.78
Basic Needs Satisfaction	.84
Negative Mental Health	.86
Positive Mental Health	.89

F. Scale Descriptives

Table 3 below presents the aggregate means and standard deviations of the variables in the total sample.

Table 3

Scale Descriptives

	Mean	Std. Deviation
Authoritarian	24.59	6.54
Authoritative	37.22	5.97

Permissive	28.53	5.59
Overprotection	17.18	4.43
Basic Needs Satisfaction	4.97	.62
Negative Mental Health	8.52	6.94
Positive Mental Health	4.36	.80

Participants in this sample on average perceived their parents highest on authoritativeness ($M=37.22$, $SD=5.97$), than on permissiveness or authoritarianism ($M=28.53$, $SD=5.59$ and $M=24.59$, $SD=6.54$ respectively).

When comparing these means to those reported in Dwairy et al. (2006a) cross regional study of Arabs parenting practices, the mean of authoritative parenting style was similar to that reported among Arab adolescents, which indicates that in general, Lebanese parents' level of authoritativeness is comparable to that of Arab parents. However, participants in this sample appear to perceive their parents as more permissive and less authoritarian in comparison to how Arab adolescents perceived their parents in Dwairy et al. (2006a) study, as indicated by the relatively higher mean of permissive parenting style and lower mean of authoritarian parenting style.

The mean of perceived parental overprotection ($M= 17.18$, $SD= 4.43$), in which the total composite score can range from 9 to 36, was relatively low, indicating that participants in this sample did not perceive their parents as high on overprotection.

The mean for basic psychological needs satisfaction ($M= 4.97$, $SD= .62$) was above the midpoint of 4 signifying that participants seemed to score on average high on basic psychological needs satisfaction of autonomy, competence, and relatedness. In general and on average, females ($M = 4.97$, $SD = .05$) had higher basic psychological

needs satisfaction than males ($M = 4.96, SD = .05$).

Considering that the total composite score of perceived negative mental health can range from 0 to 40, the mean of perceived negative mental health in this sample ($M= 8.52, SD= 6.94$) is relatively low, indicating better mental health. However, the mean of perceived negative mental health in this sample was much higher than reported in Dwairy et al. (2006b) among Arab adolescents ($M=3.43, SD= 2.15$). This indicates that the average mental health of Arab adolescents is much better than that of Lebanese youth in this sample.

The mean for perceived positive mental health ($M= 4.36, SD= .80$) was above the midpoint of 3.5 signifying that participants on average had reported good positive mental health in terms of emotional, social, and psychological well-being. Males ($M = 4.41, SD = .06$) had generally better positive mental health than females ($M = 4.31, SD = .07$).

G. Correlations

1. Inter-correlations between variables. Inter-correlations between the predictor variables, permissive, authoritarian, and authoritative parenting styles, and parental overprotection are presented in table 4 below.

Table 4

Pearson's Inter-correlations Between Predictor Variables

	Authoritarian Parenting Style	Authoritative Parenting Style	Permissive Parenting Style	Parental Overprotection
Authoritarian	1.00	-.52***	-.21***	.41***
Authoritative		1.00	.35***	-.35***
Permissive			1.00	-.48***
Parental Overprotection				1.00

*** Significant at the level of $p < 0.001$

All predictor variables (parenting styles and parenting overprotection) were significantly related to each other.

The strongest correlation between the predictor variables was that between the authoritative and authoritarian parenting styles ($r = -.52, p < .001$), indicating that the more individuals perceived their parents as authoritarian, the less they perceived them as authoritative. Permissive parenting style was significantly positively correlated with authoritative parenting style ($r = .35, p < .001$), indicating that the more the individuals perceived their parents as permissive, the more they perceived them also as authoritative. On the other hand, permissive parenting style was significantly negatively correlated with authoritarian parenting style ($r = -.21, p < .001$), which means that the more individuals perceived their parents as permissive, the less they perceived them as authoritarian.

Parental overprotection had a negative medium-to-high correlation with permissive parenting style ($r = -.48, p < .001$) and with authoritative parenting style ($r = -.35, p < .001$). This means that the more individuals perceived their parents as overprotective, the less they perceived them as permissive or authoritative. On the other hand, parental overprotection had a positive medium-to-high correlation with authoritarian parenting style ($r = .41, p < .001$), indicating that the more the individuals perceived their parents as overprotective, the more they also perceived them as authoritarian.

Inter-correlations between the outcome variables (basic psychological needs satisfaction, negative mental health, and positive mental health) are presented in table 5 below.

Table 5

Pearson's Inter-correlations Between Outcome Variables

	Basic Needs Satisfaction	Negative Mental Health	Positive Mental Health
Basic Needs Satisfaction	1.00	-.52***	.58***
Negative Mental Health		1.00	-.59***
Positive Mental Health			1.00

*** Significant at the level of $p < 0.001$

All outcome variables were significantly and strongly correlated. Perceived basic psychological needs satisfaction had a positive strong correlation ($r = .58, p < .001$) with perceived positive mental health, indicating that the higher their basic needs satisfaction the higher the perceived positive mental health of the individual.

Basic need satisfaction was also negatively correlated with perceived negative mental health ($r = -.52, p < .001$), suggesting that the lower the basic needs satisfaction the higher the individuals' perceived negative mental health (i.e. worse mental health).

Finally, perceived positive mental health had a negative strong correlation with negative mental health ($r = -.59, p < .001$), which means that the higher the individuals' perceived positive mental health, the lower their perceived negative mental health (i.e. better mental health).

2. Correlations for Hypothesis Testing

Table 6

Pearson's Correlations between Perceived Parenting Styles and Outcome Measures

	Basic Needs Satisfaction	Negative Mental Health	Positive Mental Health
Authoritarian	-.26***	.17**	-.03

Authoritative	.34***	-.21***	.18**
Permissive	.09	-.13*	.08

***. Correlation is significant at the 0.001 level (2-tailed).

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

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

In the present study, it was hypothesized that perceived authoritarian parenting style scores will correlate positively with negative mental health scores, and negatively with basic needs satisfaction scores. As can be seen in Table 6, Authoritarian parenting style had a low-to-medium positive correlation with negative mental health ($r=.17$, $p <.01$) and a medium negative correlation with basic psychological needs satisfaction ($r=-.26$, $p <.001$). That is, the more individuals perceived their parents as authoritarian, the higher their negative mental health (i.e. worse mental health) and the lower levels of their basic psychological needs satisfaction. While it was hypothesized that perceived authoritarian parenting style scores will correlate negatively with positive mental health scores, as can be seen in Table 6, the authoritarian parenting style was not significantly related to perceived positive mental health ($r=-.03$, ns).

It was also hypothesized that the authoritative parenting style will have a positive correlation with positive mental health scores, and a negative correlation with negative mental health scores. As indicated in Table 6, authoritative parenting style had a low-to-medium positive correlation with positive mental health ($r=.18$, $p <.01$) and a medium negative correlation with negative mental health ($r=-.21$, $p <.001$), which indicates that the more the individual perceives their parents as authoritative, the higher their perceived positive mental health, and the lower their perceived negative mental health (i.e. better mental health). It was further hypothesized that perceived authoritative parenting style scores will have a positive correlation with basic needs satisfaction

scores. As can be seen in Table 6, the authoritative parenting style also had a medium-to-high positive correlation with basic psychological needs satisfaction ($r=.34, p <.001$), indicating that the more the individual perceives their parents as authoritative, the higher their perceived basic psychological needs satisfaction.

Another hypothesis was that permissive parenting style would correlate positively with negative mental health scores. Interestingly, as can be seen in Table 6, permissive parenting style had a low-to-medium negative correlation with negative mental health ($r=-.13, p <.05$). This means that the more an individual perceived their parents as permissive, the lower their perceived negative mental health (i.e. better mental health). Also, the present study hypothesized that permissive parenting style will have a negative correlation with positive mental health and basic needs satisfaction; however, as shown in Table 6, permissive parenting style was not significantly correlated with perceived positive mental health or basic psychological needs satisfaction ($r=.08, ns; r=.09, ns$ respectively).

Table 7

Pearson's Correlations between Perceived Parental Overprotection and Outcome Measures

	Basic Needs Satisfaction	Negative Mental Health	Positive Mental Health
Parental Overprotection	-.23***	.26***	-.12*

***. Correlation is significant at the 0.001 level (2-tailed).

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

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

Furthermore, it was hypothesized that perceived parental overprotection would have a positive correlation with negative mental health scores, and a negative correlation with positive mental health scores. As Table 7 demonstrates, parental

overprotection was significantly correlated with positive mental health and negative mental health. Parental overprotection had a low negative correlation with positive mental health ($r=-.12, p <.05$) and a medium positive correlation with negative mental health ($r=.26, p <.001$), which indicates that the more the individual's parents were overprotective, the lower their perceived positive mental health levels, and the higher their perceived negative mental health levels.

Lastly, it was hypothesized that perceived parental overprotection would correlate negatively with basic needs satisfaction scores. This hypothesis was supported; as indicated in Table 7, parental overprotection was significantly negatively correlated with basic psychological needs satisfaction ($r=-.23, p <.001$). That is, the more the individual perceived their parents as overprotective, the lower their levels of basic psychological needs satisfaction.

3. Additional Analysis. Additional correlational analyses were conducted between the predictor variables (authoritarian, authoritative, permissive parenting styles and parental overprotection) and the subscales of the outcome variables with the recognition that the factor analysis and reliability results of the outcome measures were less than ideal. These results are summarized in table 8.

Table 8

Pearson's Correlations Between Predictor Variables and the Subscales of the Outcome Measures

		Authoritarian	Authoritative	Permissive	Overprotect- ion
Basic Needs Satisfaction	Autonomy	-.25***	.25***	.23***	-.30***
	Relatedness	-.16**	.30***	.02	-.16**
	Competence	-.26***	.27***	.02	-.13*

Negative Mental Health	Identity	.20**	-.18**	-.08	.25***
	Anxiety	.09	-.11	-.15*	.19**
	Depression	.13*	-.22***	-.10	.20**
	Conduct	.09	-.15*	-.03	.16**
Positive Mental Health	Emotional	-.04	.15*	.06	-.09
	Social	-.01	.13*	.07	-.11*
	Psychological	-.03	.18**	.08	-.11

***. Correlation is significant at the 0.001 level (2-tailed).

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

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

H. Gender Differences in Perceived Parenting Styles and Parental Overprotection

Independent t-tests were conducted to test for differences in perceived parenting styles (authoritative, authoritarian, permissive) and perceived parental overprotection among males and females. On average, females reported higher perceived authoritative parenting ($M= 37.39$, $SD= 6.15$), than males ($M= 37.07$, $SD= 5.81$); however, this difference was not significant $t(291)= .46$, ns, suggesting that females and males did not significantly differ in their perceived parental authoritativeness.

For perceived authoritarian parenting, males ($M= 24.95$, $SD= 6.60$) had a higher mean than females ($M= 24.20$, $SD= 6.48$). This difference was also not significant, $t(291) = -.99$, ns, indicating that there were no gender differences on perceived authoritarian parenting style.

Furthermore, males, on average, reported higher perceived permissive parenting style ($M=29.21$, $SD= 5.42$) than females ($M= 27.80$, $SD= 5.69$). The mean difference was significant $t(291) = -2.17$, $p<.05$, but with a small effect size $r=.016$.

For perceived parental overprotection, females ($M=17.63$, $SD= 4.90$) had a

higher mean than males ($M= 16.77$, $SD= 3.92$). This difference, however, was not significant, $t(268.13)= 1.65$, ns, which indicated that that males and females did not significantly differ in their perceived parental overprotection.

I. Multiple Regression Analyses

Forward multiple regressions were conducted to evaluate which variables would significantly predict basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health.

The variables entered into the regression equation were perceived parental styles (authoritative, authoritarian, and permissive) and perceived parental overprotection. Three separate regression analyses were performed for each of the three dependent variables.

The assumptions of ratio of cases to IVs, normality, linearity, independence of errors, and homoscedasticity were all met. The values in the correlations matrix were all below 0.8. All the VIF values are below 10, while all of the tolerance values are greater than 0.2. No problems of multicollinearity or singularity between the independent variables existed. The Durbin-Watson statistics were 2.10 / 1.64 / 2.09, which means that the assumption of independence of errors is met (Check Appendix G for more details concerning assumptions and figures).

1. Basic Psychological Needs Satisfaction. Table 9 below presents R , R^2 , and adjusted R^2 . Table 10 displays the unstandardized regression coefficients (B), the standardized coefficients (β), semi-partial correlations (sr_i^2), and the collinearity statistics.

Table 9 : R, R², and Adjusted R² of the Regression Equation

	R	R ²	Adjusted R ²	Standard error of the estimate
Model	.36	.13	.12	.58

Table 10: Regression Parameters and Collinearity Diagnostics

Variable	B	Standardized β	s _{f1} ²	T	Collinearity Statistics	
					Tolerance	VIF
Authoritative	.03	.29	.08	5.01**	.88	1.14
Overprotection	-.02	-.13	.01	-2.20*	.88	1.14

Note: * p<.05, ** p<.001

Basic psychological needs satisfaction scores were predicted by perceived parental overprotection scores and perceived authoritative parenting style scores, both predictors accounting for 13% of the variance (R²=0.13, F (2, 290) = 21.37, p<0.001).

Authoritative parenting style was a better predictor of basic psychological needs satisfaction, with a standardized Beta β = 0.29, p<.001 (medium-sized predictor), followed by perceived parental overprotection, with a standardized Beta β = -.13, p<.05 (small-to-medium sized predictor).

Taken together, these results suggest that the more the individuals perceived their parents as authoritative, the higher their perceived basic psychological needs satisfaction. Similarly, the more the individuals perceived their parents as overprotective, the lower their perceived basic psychological needs satisfaction.

2. Perceived Negative Mental Health. Table 11 below presents R, R^2 , and adjusted R^2 . Table 12 displays the unstandardized regression coefficients (B), the standardized coefficients (β), semi-partial correlations (sr_i^2), and the collinearity statistics.

Table 11: R, R^2 , and Adjusted R^2 of the Regression Equation

	R	R^2	Adjusted R^2	Standard error of the estimate
Model	.28	.08	.08	.36

Table 12: Regression Parameters and Collinearity Diagnostics

Variable	B	Standardized β	sr_i^2	T	Collinearity Statistics	
					Tolerance	VIF
Overprotection	.02	.20	.04	3.39**	.88	1.14
Authoritative	-.01	-.14	.02	-2.34*	.88	1.14

Note: * $p < .05$, ** $p < .01$

Perceived negative mental health scores were predicted by perceived parental overprotection scores and perceived authoritative parenting style scores, both predictors accounting for 8% of the variance ($R^2 = 0.08$, $F(2, 290) = 12.77$, $p < 0.001$).

Perceived parental overprotection was a positive medium predictor of perceived negative mental health, $\beta = .20$, $p < .001$, whereby the more the individuals perceived their parents as overprotective, the higher their reported negative mental health (i.e. worse mental health).

Authoritative parenting style, on the other hand, was a negative predictor of negative mental health, $\beta = -.14$, $p < .05$ (small-to-medium sized predictor), where the

more the individuals perceived their parents as authoritative, the lower their perceived negative mental health (i.e. better mental health).

3. Perceived Positive Mental Health. Table 13 below presents R , R^2 , and adjusted R^2 . Table 14 displays the unstandardized regression coefficients (B), the standardized coefficients (β), semi-partial correlations (sr_i^2), and the collinearity statistics.

Table 13: Regression Parameters and Collinearity Diagnostics

	R	R^2	Adjusted R^2	Standard error of the estimate
Model	.18	.03	.03	.79

Table 14: Regression Parameters and Collinearity Diagnostics

Variable	B	Standardized β	sr_i^2	T	Collinearity Statistics	
					Tolerance	VIF
Authoritative Parenting	.02	.18	.03	3.07*	1.00	1.00

Note: * $p < .01$

Perceived positive mental health scores were predicted by perceived authoritative parenting style scores, which accounted for 3% of the variance ($R^2=0.03$, $F(1, 291) = 9.43$, $p < 0.01$). Authoritative parenting style was a positive medium predictor of perceived positive mental health, $\beta = .18$, $p < .01$, whereby the more the individuals perceived their parents as authoritative, the higher their reported positive mental health.

CHAPTER IX

DISCUSSION

The primary aim of this study was to examine how perceived parenting styles and parental overprotection relate to psychological needs satisfaction, negative mental health, and positive mental health in a sample of Lebanese college youth.

A. Perceived Parenting Styles and Overprotection

One of the aims of this study was to evaluate the stability of Baumrind's model of parenting styles in the Lebanese context. The results of the factor analysis revealed that Baumrind's model of parenting styles (authoritative, authoritarian, and permissive) applied neatly among Lebanese youth in this sample, in discrepancy with Dwairy et al. (2006a) reports of parenting patterns and their findings of the model not holding and the intermixing of the three parenting styles among Arab adolescents. In the present study, the factor analysis evidenced a neat three factor structure of the Parental Authority Questionnaire and a relatively higher percentage of variance explained by the three factors when compared Dwairy et al. results. One possible explanation of the discrepancy in findings could be the Westernization of the Lebanese college youth if not culture and its absorbance of Westernized values, allowing the accommodation of a Western constructed model of parenting among Lebanese youth in this sample. Another reason for this could be the age of participants in the present study, Lebanese youth (ages between 18 and 25), as opposed to Dwairy et al. (2006a) sample of adolescents (ages between 16 and 17). It is possible that adolescents are uncertain and undecided of the parenting they experience and thus their reports are unsteady as opposed to young adults who are more assertive and thus their reports of the parenting they experience are more stable. Also, it is possible that parents tend to be inconsistent in their parenting

practices with adolescents and become more consistent when their children reach early adulthood. A final explanation could be the use of Lebanese participants in the present study, as opposed to Dwairy et al. (2006a) use of a mixture of participants from different Arab countries.

Furthermore, participants in the present study perceived their parents mostly as authoritative, rather than permissive or authoritarian. The authoritative parenting style is known to be the most common child rearing style in Western cultures (Dwairy et al., 2006a), thus it seems that parenting practices reported among participants in this sample are reflecting the Westernization of the Lebanese culture.

These results could be also reflecting the demographic characteristics of the participants used in the present study and their parents, who come from a relatively higher socioeconomic statuses and more urbanized backgrounds when compared to the Lebanese population at large. It is possible that parents with higher social status might be more authoritative and might apply more liberal parenting practices. These families could be also representing a more educated subset of the Lebanese population; in fact, the Westernized education this subset generally receives could be contributing to the development of their Westernized values and principles, and thus affecting their parenting practices. In fact, even if these parents might not directly influenced by Western educational systems, they might still be adapting to the higher degree of Westernization of their children, and thus they may adopt more fluid and changing values that in turn influence their parenting.

Also, inconsistent with our expectations, participants in this sample viewed their parents as low on overprotection. Since our assumption was that Lebanese parents tend to be overprotective due to the political and uncertainty instability of the country, it is

possible that the low parental overprotection reported by participants in this sample was due to the relatively stable political situation at the time of data collection. It is also possible that parents tend to become less overprotective as their children reach early adulthood; therefore, the prevalence of this parental construct in the Lebanese culture might be more common among adolescents and children. The low parental overprotection reported could also be representing the Westernization of the parents of participants in this sample, who might not be representing the typical Lebanese overprotective parents by virtue of their socioeconomic status and education; and thus by placing more value on their children's independence and individuation they become less overprotective.

Another aim of the present study was to examine differences in parenting practices across gender. There were no significant differences in the means of the parental styles and parental overprotection across gender, except for permissive parenting style, which had a significantly higher mean for males than for females. This finding may indicate that Lebanese parents generally seem to be applying the same parenting strategies to their daughters and sons, and tend to treat them in an equal manner. This finding is inconsistent with Dwairy et al. (2006a) results among Arab adolescents where the mean for the authoritative parenting style was higher for girls than for boys, and the mean for authoritarian parenting style was higher for boys than for girls; however, the results are consistent with findings from Western literature where no significant differences were reported in the perceived parenting styles across adolescents' gender (Lytton & Romney, 1991; Smetana, 1995). The concordance of our findings with Western literature could also be explained by the Westernization of the Lebanese culture, which gets reflected in the child-rearing practices adopted by parents.

B. Psychological Needs and Mental Health

The reliability and factor structure of the basic needs satisfaction, negative mental health, and positive mental health measures were investigated in the present study. The basic psychological needs satisfaction measure (Basic Needs Satisfaction in General Scale) had excellent reliability ($\alpha = .84$); however, the factors that emerged from the factor analysis were not in accord with the hypothesized structure. The results of the factor analysis may be due to translation and cultural factors. It may be that underlying basic psychological needs (autonomy, relatedness, and competence) among Lebanese youth are not as distinct, and thus may need further investigation.

Participants in this sample reported relatively high satisfaction of their basic psychological needs. These results are expected in a non-clinical university student sample. More specifically, the mean of basic psychological needs satisfaction is similar to that reported in the literature by Schiffrin et al. (2013) among college undergraduate sample in the United States.

The measure of perceived negative mental health (Psychological State Scale) had excellent reliability ($\alpha = .86$); however, the factors that emerged from the factor analysis were not in accord with the hypothesized structure. In sum, the factor analyses showed strong identity and conduct problems factors; however, weak depression and anxiety factors which seemed to be intermixed and load on one common factor of internalizing problems. These results indicate that the concepts of anxiety, depression, conduct, and identity problems in the Lebanese culture are not as distinct. More specifically, the repeated set of solutions indicated that a culture specific expression of anxiety-depression as a confounded factor, and thus may need further investigation. Another possibility is that these factors could be developmentally confounded; young

adults, in specific, might not have a clear distinction between the anxiety and depression constructs.

While the mean of negative mental health in this sample was relatively low, indicating good mental health, it was much higher than that reported in Dwairy et al. (2006b) among Arab adolescents, indicating that the average mental health of Lebanese college students in this sample is much worse than that of Arab adolescents. This could be explained by the fact that college students face many developmental, academic, and social issues that affect their mental health (Dusselier, Dunn, Wang, Shelley, & Whalen, 2005). Furthermore, this also could be related to the fact that many psychological problems such as depression and anxiety first emerge in late adolescence or early adulthood (Chisolm, 1998).

The perceived positive mental health measure (The Mental Health Continuum-Short form) had excellent reliability ($\alpha = .89$); however, the factors that emerged from the factor analysis were not in accord with the hypothesized structure. The results of the factor analysis may indicate that the three concepts of positive mental health in the Lebanese culture are not as distinct, particularly for emotional and social well-being factors which seem to be loading together on one factor, and thus may need further investigation.

Participants in this sample reported relatively high levels of perceived positive mental health. In fact, compared to studies conducted in the west, the mean of positive mental health was in fact relatively higher than that reported by Lamers et al. (2011) in a large representative sample of Dutch.

C. Parenting Styles and Overprotection and Needs, and Mental Health

In order to investigate the relationship between perceived parenting practices

and basic psychological needs satisfaction and mental health outcomes, a series of correlation analyses were initially conducted. These analyses indicated that authoritative parenting style was negatively related to perceived negative mental health (supporting hypothesis 1), while authoritarian parenting style and perceived parental overprotection were positively correlated with perceived negative mental health (supporting hypothesis 2 and 4). Permissive parenting style, interestingly, was negatively associated with perceived negative mental health (refuting hypothesis 3).

The negative association that emerged between authoritative parenting style and negative mental health in this study replicates that reported among Arab adolescents in Dwairy et al. (2006b) study. Also, the positive association between authoritarian parenting and negative mental health was stronger in this study among Lebanese youth than among Dwairy et al. Arab adolescents sample.

Finally, while permissive parenting style was unrelated to negative mental health among Arab adolescents in Dwairy et al. study, and has been commonly associated with negative psychological outcomes in the literature reviewed (e.g Milevsky et al., 2007; Slicker & Thornberry, 2002), this style of parenting predicted lower levels of negative mental health among Lebanese youth (i.e. better mental health). This discrepancy could be due to the age of the participants in the present study, college students, who might be enjoying the freedom and lack of control provided by the permissive parenting style, as opposed to children and adolescents samples commonly investigated in the literature, who need more guidance and control from their parents.

In the present study it was also demonstrated that the authoritative parenting style was positively related to perceived positive mental health (supporting hypothesis 5), while perceived parental overprotection was negatively related to perceived positive

mental health (supporting hypothesis 8). Hypotheses 6 and 7 were refuted, since authoritarian and permissive parenting styles were not associated to perceived positive mental health.

Moreover, the authoritative parenting style was positively related to perceived basic psychological needs satisfaction (supporting hypothesis 9), while perceived parental overprotection and authoritarian parenting style were negatively related to perceived basic psychological needs satisfaction (supporting hypothesis 10 and 12). Permissive parenting style was not associated with perceived basic psychological needs satisfaction, thus refuting hypothesis 11.

It is important to note that, due to the correlational nature of many of the results in this study, it is also possible that children are shaping the parenting styles and practices of their parents. For example, it could be that parents of individuals with higher levels of autonomy, competence, and relatedness, and better mental health, tend to be more authoritative.

However, in addition to these correlation analyses, more robust analyses (i.e. multiple regressions) were necessary to rule out the shared variance between the predictor variables and the different outcomes, and to investigate hypothesis 13.

The regression analysis conducted on the basic psychological needs satisfaction outcome provided further support that individuals who perceive their parents as more authoritative have higher levels of basic psychological needs satisfaction, while those with more overprotective parents have lower levels of basic psychological needs satisfaction. Authoritarian parenting style was not found to be predictive of basic psychological needs satisfaction levels, despite the two variables initially correlating. Permissive parenting style was neither correlated to nor predictive of basic

psychological needs satisfaction scores.

The association between authoritative parenting style and basic needs satisfaction could be explained by the fact that authoritative parents engage their children so they develop more feelings of autonomy, competence, and relatedness. Overprotective and authoritarian parents constantly direct their children what to do and do not allow their children to engage in decision-making; thus, these children do not develop autonomy, competence, and relatedness. Permissive parents may help their children develop a higher sense of autonomy, but not competence or relatedness.

The regression analysis conducted on the perceived negative mental health outcome further supported the positive relationship between parental overprotection and negative mental health, indicating that individuals who perceive their parents as more overprotective have worse mental health. Also, the analysis further indicated that authoritative parenting predicts lower levels of negative mental health. Although permissive and authoritarian parenting styles were associated with negative mental health, they did not emerge as significant predictors of that outcome.

Finally, the regression analysis conducted for the perceived positive mental health outcome further indicated that individuals who perceive their parents as more authoritative have higher levels of positive mental health. Although an association between parental overprotection and positive mental health was found, this variable did not emerge as a significant predictor of positive mental health.

Findings from the current study are consistent with Western literature where low parental authoritarianism and high parental authoritativeness have been associated with better psychological outcomes (e.g. Lamborn et al., 1991; Milevsky et al., 2007). This could be explained by the high degree of warmth and the reasonable expectations

provided to children by authoritative parents as opposed to the low warmth and harshness provided by authoritarian parents, which affect the children's mental health.

This association could be reflecting the explanation provided by Dwairy et al. (2006b) of how it is the incongruence between the parenting and the society value system which is related to diminished mental health. It is possible that the authoritarian parenting style is incongruent with the Westernized value system of the Lebanese youth, who represent a more Westernized and urbanized subset, as discussed above, and thus relates to their diminished mental health. On the other hand, the congruence of the authoritative parenting style with their Western influenced values, such as independence and freedom, is in turn related to better mental health.

The associations reported in the present study regarding parental overprotection and their investigated outcomes are in line with other Western findings where parental overprotection was associated with negative psychological outcomes (Bennet & Stirling, 1998; Muris & Merckelbach, 1998). It seems that parental overprotection is associated to less pleasant psychological outcomes among Lebanese youth, especially in terms of negative mental health and basic psychological needs satisfaction. The autonomy restriction and excessive intrusiveness practiced by this parenting challenges the Western values that these Lebanese hold, such as assertiveness and individuation, and thus could be leading to lowering their basic psychological needs satisfaction and creating more psychological problems among Lebanese youth.

D. Implications of the Findings

One important finding of the present study was that, contrary to Dwairy et al. (2006a) reports, Baumrind's model of parenting styles (authoritative, authoritarian, and permissive) was found to apply among Lebanese youth in a similar way to the West,

and the Arabic version of the Parental Authority Questionnaire is reliable and can be used in the Lebanese culture. Furthermore, it was found that future refinement as to structure of the other Arabic measures used in the present study are promising in the Lebanese context.

The present study findings demonstrated the existence of significant associations between perceived parenting styles and parental overprotection and basic needs satisfaction and mental health outcomes among Lebanese youth. In summary, it seems that the authoritative parenting style and parental overprotection are the strongest parenting constructs that affected the participants in this sample, especially in terms of their negative mental health and basic psychological needs satisfaction levels. Despite their significant associations, perceived parental styles and perceived parental overprotection do not seem to have a great impact on perceived positive mental health; only authoritative parenting style was found to be predictive of this outcome, with a very low percentage of variance in the outcome explained. It was interesting to note that perceived negative mental health was more affected by the parenting practices investigated than perceived positive mental health among Lebanese youth. One explanation for this finding could be that there might be more focus on negative mental health than on positive mental health in the Lebanese culture. The concepts of positive mental health such as emotional and psychological well being could be not well-developed and common in the Lebanese culture, and might be secondary to concepts of negative of mental health such as depression and anxiety.

The findings of this study have important educational and social implications. An individual's perception of the parenting they experience seems to be related to on one's mental health and well being; therefore, it would be beneficial to bring the

importance healthy parenting to the attention of parents and the society as a whole.

E. Limitations

Although this study revealed some important findings, some limitations must be addressed. One of the main limitations of the study is its reliance on self-report measures, which do not measure behaviour directly. These measures are subject to demand characteristics and socially desirable responding, where participants might be positively representing themselves. Despite the assurances of confidentiality and anonymity, participants might still have a tendency to protect themselves on some topics present in the questionnaire, which might lead to a distortion in their responding.

Furthermore, due to the use of self-report measure, as opposed to more direct assessment techniques such as observation or multi-informant assessments, the final analysis reflects only the reported or perceived parenting practices of the participants and their perceived mental health and basic psychological needs satisfaction. Therefore, the results should be interpreted with caution.

Another limitation of the study was the use of instruments developed originally in the west to assess variables in the Lebanese culture. While the reliabilities of all the Arabic measures used were acceptable, their factor structure was less than ideal, except for the Parental Authority Questionnaire. Therefore, the factor structure of these Arabic measures need further study using more rigorous analytic methodology such as confirmatory factor analysis.

Another limitation is the fact that participants were recruited only from the American University of Beirut; hence they could be representing a subset of a higher socioeconomic level and a higher degree of Westernization and urbanization in comparison to the Lebanese at large. The results might not be representative of

Lebanese youth at large, and it is possible that had we recruited participants from other universities or from more rural areas in Lebanon, we might have established different results.

A final limitation of this study is its use of a cross-sectional research and non-experimental design. Although correlational analyses are most suitable for examining our hypotheses, Christensen (2004) indicated that the use of such analyses demonstrates only relations among different variables and does not draw causal or directional inferences. Reported relationships could be reciprocal and thus may need further investigation in future longitudinal research; for example, it could be that parents tend to be more overprotective if their child has low basic psychological needs satisfaction or worse mental health.

F. Future Directions

Proceeding from the above-reported findings, some suggestions can be made for future directions. Future research could further explore the factor structure of the Arabic measures used in this study and engage in further refinement of these measures.

Also, in this study, we were able to identify both negative and positive associations between different parenting practices and Lebanese youth mental health and basic psychological needs satisfaction. Future research can investigate some variables that could be mediating the relationship between perceived parenting and mental health outcomes such as the children's conflict with their parents, or the personality traits of the children. In fact, studies could further explore the possibility that psychological needs satisfaction might be mediating the relationship between perceived parenting and mental health outcomes.

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Appendix A
Informed Consent Form for Psychology 201 Students

CONSENT FORM FOR PERSONS PARTICIPATING
IN A RESEARCH PROJECT

Project Title: Parenting Styles and Parental Overprotection in Relation to Basic Psychological Needs and Positive Mental Health of Lebanese Youth
Investigator: Dr. Shahe Kazarian
Co-Investigator: Alia Olivia Saleh
Address: American University of Beirut
Jesup 103A
Phone: 01- 350 000, ext 4374
Email: sk29@aub.edu.lb

Dear participants, we would like to invite you to participate as a volunteer in research conducted at the American University of Beirut that seeks to examine how parenting styles and parental overprotection relate to basic psychological needs and positive mental health in an AUB student sample. In order to take part in this study, you have to be Lebanese, 18-25 years old, and you have to be able read and understand Arabic.

As a research participant, you will be asked to read this consent form, and then respond to a questionnaire. Please read and consider each question carefully, but do not agonize over your answers. There are no right or wrong answers, and first impressions are usually fine. Just think about what best reflects your own opinions or feelings.

We will be asking 300 AUB students, including students registered in Psychology 201, to complete a questionnaire. The information collected will be used in research and in academic presentations.

All of the data collected will be treated in the strictest confidence and only the primary investigator and the co-investigator will have access to it. To ensure anonymity no direct identifying information will be recorded; no names nor signatures. No confidentiality issues will possibly arise since the data is completely anonymous. To further ensure the confidentiality of your participation, you will be asked to place the questionnaire you fill in an envelope, seal it, and hand it back to the researcher, who will put it with other identical envelopes.

All data from the study will be kept in a locked cabinet in the office of the research collaborator for a period of three years after which it will be shredded.

It is expected that your participation in this research will take approximately 15-20 minutes.

Please understand that your participation is voluntary, you have the right to refuse participation and if you choose to participate you have the right to withdraw from the

study or discontinue your participation at any time without giving a reason and with no penalties, and doing so will not affect your relationship with AUB in any way

The questions in the survey might be considered sensitive and may cause upset, disturbance, or distress; however, the results of the study will help researchers to better understand parenting styles and parental overprotection and their correlates in an AUB student population and will help enrich the literature parenting behavior. Moreover, you will receive one extra point on your final PSYC 201 grade. Should you decide not to participate in this study, you can choose to write a brief report on an article from a psychological journal to receive credit equivalent to 1% point added to your final course grade.

If at any time and for any reason, you would prefer not to answer any questions, please feel free to skip those questions. If at any time you would like to stop participating, you can simply terminate without justification. You will not be penalized for deciding to stop participation at any time.

If you have questions, concerns or complaints about this research study, or if you are interested in learning about the outcome of the study, you may contact Dr. Shahe Kazarian, sk29@aub.edu.lb, +961.1.350000 x4374 or Alia Olivia Saleh, aas70@aub.edu.lb.

If you have any concerns, complaints, or general questions about research or your rights as a participant, you may contact the Social & Behavioral Sciences Institutional review Board (SBSIRB) at AUB: 01- 350 000 ext. 5445 or 5454 or irb@aub.edu.lb

For your reference, the Counseling Center at AUB provides free counseling services to students. You may contact them at 01-350 000 ext. 3196

If you accept the above statements and you are willing to participate, please put a check mark on the line below

Date and Time: _____

You will be provided with a copy of the consent form for your convenience.

THANK YOU FOR YOUR COOPERATION



Appendix B
Informed Consent for Students Recruited on Campus

CONSENT FORM FOR PERSONS PARTICIPATING
IN A RESEARCH PROJECT

Project Title: Parenting Styles and Parental Overprotection in Relation to Basic Psychological Needs and Positive Mental Health of Lebanese Youth
Investigator: Dr. Shahe Kazarian
Co-Investigator: Alia Olivia Saleh
Address: American University of Beirut
Jesup 103A
Phone: 01- 350 000, ext 4374
Email: sk29@aub.edu.lb

Dear participants, we would like to invite you to participate as a volunteer in research conducted at the American University of Beirut that seeks to examine the relationship between parenting styles and parental overprotection in relation to basic psychological needs and positive mental health in an AUB student sample. In order to take part in this study, you have to be Lebanese, 18 to 25 years old, and you have to be able read and understand Arabic.

As a research participant, you will be asked to read this consent form, and then respond to a questionnaire. Please read and consider each question carefully, but do not agonize over your answers. There are no right or wrong answers, and first impressions are usually fine. Just think about what best reflects your own opinions or feelings.

We will be asking 300 participants, students at AUB and students registered in Psychology 201, to complete a questionnaire. Only participants recruited from the Psychology 201 pool will receive an extra point added on their final course grade. The information collected will be used in research and in academic presentations.

All of the data collected will be treated in the strictest confidence and only the primary investigator and the co-investigator will have access to it. To ensure anonymity no direct identifying information will be recorded; no names nor signatures. No confidentiality issues will possibly arise since the data is completely anonymous. To further ensure the confidentiality of your participation, you will be asked to place the questionnaire you fill in an envelope, seal it, and hand it back to the researcher, who will put it with other identical envelopes.

All data from the study will be kept in a locked cabinet in the office of the research collaborator for a period of three years after which it will be shredded.

It is expected that your participation in this research will take approximately 15-20 minutes.

Please understand that your participation is voluntary, you have the right to refuse participation and if you choose to participate you have the right to withdraw from the study or discontinue your participation at any time without giving a reason and with no penalties, and doing so will not affect your relationship with AUB in any way.

The questions in the survey might be considered sensitive and may cause upset, disturbance, or distress; however the results of the study will help researchers to better understand parenting styles and parental overprotection and their correlates in an AUB student population and will help enrich the literature on parental behavior. If at any time and for any reason, you would prefer not to answer any questions, please feel free to skip those questions. If at any time you would like to stop participating, you can simply terminate without justification. You will not be penalized for deciding to stop participation at any time.

If you have questions, concerns or complaints about this research study, or if you are interested in learning about the outcome of the study, you may contact Dr. Shahe Kazarian, sk29@aub.edu.lb, +961.1.350000 x4374 or Alia Olivia Saleh, aas70@aub.edu.lb

If you have any concerns, complaints, or general questions about research or your rights as a participant, you may contact the Social & Behavioral Sciences Institutional review Board (SBSIRB) at AUB: 01- 350 000 ext. 5445 or 5454 or irb@aub.edu.lb

For your reference, the Counseling Center at AUB provides free counseling services to students. You may contact them at 01-350 000 ext. 3196

If you accept the above statements and you are willing to participate, please put a check mark on the line below

Date and Time: _____

You will be provided with a copy of the consent form for your convenience.

THANK YOU FOR YOUR COOPERATION

استمارة موافقة على المشاركة في مشروع بحث
لطلاب مادة علم النفس 201

عنوان المشروع: أنماط المعاملة الوالدية والحماية المفرطة وعلاقتها بالصحة النفسية الإيجابية والحاجات النفسية
مدير المشروع: شاهي كازاريان، حامل شهادة دكتوراه
العنوان: الجامعة الأميركية في بيروت، جيب ١٠٣ أ
الهاتف: 01-000053-01 رقم داخلي 4373
البريد الإلكتروني: sk29@aub.edu.lb
الباحثة الرئيسية: عالية أوليفيا صالح، طالبة دراسات عليا في علم النفس، aas70@aub.edu.lb

نود أن ندعوكم للمشاركة في مشروع بحث يحدث في الجامعة الأميركية في بيروت.

هدف هذا البحث هو دراسة العلاقة بين أنماط العلاقة الوالدية والحماية المفرطة كما يدركها الأبناء، والصحة النفسية الإيجابية والحاجات النفسية في طلاب الجامعة الأميركية في بيروت. المشاركة في هذه الدراسة تتطلب أن تكون لبنائى الجنسية، عمرك بين 18 إلى 25 سنة، وقادراً على قراءة وفهم اللغة العربية.

بصفتك مشارك في البحث، سوف تقرأ استمارة الموافقة هذه، وسوف تحصل على استبيان. مطلوب منك قراءة الأسئلة بعناية والإجابة بصدق وصراحة قدر الإمكان. سوف نطلب من 300 طالب من الجامعة الأميركية في بيروت والطلاب المسجلين في مادة علم النفس 201 في الجامعة الأميركية في بيروت إكمال الاستبيان. سيتم استخدام المعلومات التي سيتم جمعها في الأبحاث والعروض الأكاديمية.

لا يمكن لأحد النفاذ إلى المعلومات سوى الباحثة الرئيسية ومدير المشروع. لن تسأل عن اسمك أو امضائك أو عن أي معلومة تعرف عنك، وتبقى نتائج مشاركتك سرية بصورة مطلقة.

بعد الإنتهاء من ملئ الاستبيان عليك أن تضعه في الملف، وعليك أن تغلق الملف بإحكام وتسلمه للباحث ليقوم بوضعه إلى جانب ملفات أخرى مطابقة. تُحفظ جميع النتائج في خزانة مغلقة في مكتب الباحث الأولي لمدة ثلاث سنوات. بعد انقضاء هذه الفترة، يتم إتلاف هذه البيانات.

تستغرق مشاركتك في هذا الاستفتاء حوالي 15 إلى 20 دقيقة. إن مشاركتك في هذا الاستفتاء ارادية والخيار بيدك. يمكنك سحب موافقتك على المشاركة في هذا البحث في أي وقت، من دون تبرير أو عقوبة. لك كامل الحرية في أن تقرر عدم إكمال الاستفتاء في أي وقت. رفضك للمشاركة أو سحب موافقتك على المشاركة في هذا البحث لن يؤثر على علاقتك مع الجامعة الأميركية في بيروت في أي شكل من الأشكال.

قد تعتبر أسئلة هذا الاستبيان حساسة وقد تسبب الإزعاج، ومع ذلك فإن نتائج هذه الدراسة سوف تساعد على فهم العلاقة بين أنماط العلاقة الوالدية والحماية المفرطة كما يدركها الأبناء، والصحة النفسية الإيجابية والحاجات النفسية.

من خلال المشاركة، سوف تتلقى نقطة إضافية على نتيجتك النهائية في مادة علم النفس 201. إذا قررت عدم المشاركة في هذه الدراسة، بإمكانك أن تختار أن تكتب تقرير عن مقالة من مجلة لعلم النفس لتحصل على على النقطة الإضافية على نتيجتك النهائية.

إذا كان لديك أية مخاوف أو شكاوى أو إذا كنت مهتم في الحصول على نتائج الدراسة، يمكنك الاتصال بشاهي كازاريان أو عالية أوليفيا صالح (معلومات الاتصال مُبيّنة أدناه).

الدكتور شاهي كازاريان، 350000-01 ، رقم داخلي 4373، sk29@aub.edu.lb
عالية أوليفيا صالح، aas70@aub.edu.lb

إن ختم الموافقة على هذه الاستمارة يؤكد أن هذا المشروع قد خضع للمراجعة والموافقة للمدة التي حدّتها لجنة المراجعة المؤسسية لحماية المشاركين في الأبحاث التابعة للجامعة الأميركية في بيروت. إن كان عندك أي أسئلة حول حقوقك بصفقتك مشارك في البحث ، أو للإبلاغ عن إصابة ناجمة عن البحث ، يمكنك الاتصال بالرقم التالي:

01-350000 ، رقم داخلي 5445 أو 5454 ، irb@aub.edu.lb
مركز الإرشاد (Counseling Center) في الجامعة الأميركية في بيروت يقدم خدمات استشارية مجانية للطلاب. يمكنك الاتصال بالرقم التالي 01350000، رقم داخلي 3196.

إذا كنت موافق على المشاركة في هذا البحث، الرجاء وضع إشارة "صح" على السطر التالي:

التاريخ والوقت:

سيتم توفير لك نسخة من استمارة الموافقة.

شكرا لتعاونك

**استمارة موافقة على المشاركة في مشروع بحث
لطلاب الجامعة الأمريكية في بيروت**

عنوان المشروع: أنماط المعاملة الوالدية والحماية المفرطة وعلاقتها بالصحة النفسية الإيجابية والحاجات النفسية
مدير المشروع: شاهي كازاريان، حامل شهادة دكتوراه
العنوان: الجامعة الأمريكية في بيروت، جيب ١٠٣ أ
الهاتف: 01-000053-01 رقم داخلي 4373
البريد الإلكتروني: sk29@aub.edu.lb
الباحثة الرئيسية: عالية أوليفيا صالح، طالبة دراسات عليا في علم النفس، aas70@aub.edu.lb
نود أن ندعوكم للمشاركة في مشروع بحث يحدث في الجامعة الأمريكية في بيروت.

هدف هذا البحث هو دراسة العلاقة بين أنماط العلاقة الوالدية والحماية المفرطة كما يدركها الأبناء، والصحة النفسية الإيجابية والحاجات النفسية في طلاب الجامعة الأمريكية في بيروت. المشاركة في هذه الدراسة تتطلب أن تكون **لبناني** الجنسية، عمرك بين **18 إلى 25 سنة**، وقادراً على قراءة وفهم اللغة العربية. بصفتك مشارك في البحث، سوف تقرأ استمارة الموافقة هذه، وسوف تحصل على استبيان. مطلوب منك قراءة الأسئلة بعناية والإجابة بصدق وصرامة قدر الإمكان. سوف نطلب من 300 طالب من الجامعة الأمريكية في بيروت والطلاب المسجلين في مادة علم النفس 201 في الجامعة الأمريكية في بيروت إكمال الاستبيان. سيتم استخدام المعلومات التي سيتم جمعها في الأبحاث والعروض الأكاديمية. فقط طلاب مادة علم النفس 201 سيتلقون نقطة إضافية على نتيجتهم النهائية في مادة علم النفس 201.

لا يمكن لأحد النفاذ إلى المعلومات سوى الباحثة الرئيسية ومدير المشروع. لن تسأل عن اسمك أو امضائك أو عن أي معلومة تعرف عنك، وتبقى نتائج مشاركتك سرية بصورة مطلقة.

بعد الإنتهاء من ملئ الاستبيان عليك أن تضعه في الملف، وعليك أن تغلق الملف بإحكام و تسلمه للباحث ليقوم بوضعه الى جانب ملفات أخرى مطابقة

تُحفظ جميع النتائج في خزانة مغلقة في مكتب الباحث الأولي لمدة ثلاث سنوات. بعد انقضاء هذه الفترة، يتم إتلاف هذه البيانات.

تستغرق مشاركتك في هذا الاستفتاء حوالي 15 الى 20 دقيقة.

إن مشاركتك في هذا الاستفتاء ارادية والخيار بيدك. يمكنك سحب موافقتك على المشاركة في هذا البحث في أي وقت، من دون تبرير أو عقوبة. لك كامل الحرية في أن تقرر عدم إكمال الاستفتاء في أي وقت. رفضك للمشاركة أو سحب موافقتك على المشاركة في هذا البحث لن يؤثر على علاقتك مع الجامعة الأمريكية في بيروت في أي شكل من الأشكال.

قد تعتبر أسئلة هذا الاستبيان حساسة وقد تسبب الإزعاج، ومع ذلك فإن نتائج هذه الدراسة سوف تساعد على فهم العلاقة بين أنماط العلاقة الوالدية والحماية المفرطة كما يدركها الأبناء، والصحة النفسية الإيجابية والحاجات النفسية.

إذا كان لديك أية مخاوف أو شكاوى أو إذا كنت مهتم في الحصول على نتائج الدراسة، يمكنك الاتصال بشاهي كازاريان أو عالية أوليفيا صالح (معلومات الاتصال مبيّنة أدناه).

الدكتور شاهي كازاريان، 01-350000 ، رقم داخلي 4373، sk29@aub.edu.lb
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مركز الإرشاد (Counseling Center) في الجامعة الأميركية في بيروت يقدم خدمات استشارية مجانية للطلاب. يمكنك الاتصال بالرقم التالي 01350000، رقم داخلي 3196.

إذا كنت موافق على المشاركة في هذا البحث، الرجاء وضع إشارة "صح" على السطر التالي:

التاريخ والوقت: _____

سيتم توفير لك نسخة من استمارة الموافقة.

شكرا لتعاونك

Appendix E
Instruments

Mental Health Continuum-Short Form (MHC-SF)

حدد (حددي) إلى أي مدى تتلاءم هذه الجمل مع إحساسك وشعورك في الشهر الماضي بواسطة وضع دائرة على الرقم المناسب بجانب كل جملة بحسب ما يلي:

١=أبداً	٢=مرة أو مرتين في الشهر	٣=تقريباً مرة كل أسبوع	٤=مرتين أو ثلاثة كل أسبوع	٥=تقريباً كل يوم	٦=كل يوم
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في خلال الشهر الماضي، عدّد المرّات التي شعرت بها:

كل يوم	تقريباً كل يوم	مرتين أو ثلاثة كل أسبوع	تقريباً مرة كل أسبوع	مرة أو مرتين في الشهر	أبداً	
٦	٥	٤	٣	٢	١	١ أنك سعيد
٦	٥	٤	٣	٢	١	٢ أنك مستمتع بالحياة
٦	٥	٤	٣	٢	١	٣ أنك راضي
٦	٥	٤	٣	٢	١	٤ أن لديك شيء هام تقدمه للمجتمع
٦	٥	٤	٣	٢	١	٥ أنك تنتمي إلى جماعة مثل (الأصدقاء، زملاء الدراسة، الجيران)
٦	٥	٤	٣	٢	١	٦ أن الحياة من حولك تتطور
٦	٥	٤	٣	٢	١	٧ أن الناس بطبيعتهم طيبين
٦	٥	٤	٣	٢	١	٨ أنك تفهم الطريقة التي يتعامل بها المحيطين من حولك
٦	٥	٤	٣	٢	١	٩ أنك راضي عن السمات المختلفة لشخصيتك
٦	٥	٤	٣	٢	١	١٠ أنك ناجح في إدارة حياتك اليومية
٦	٥	٤	٣	٢	١	١١ أن لديك علاقات قوية مع أفراد من نفس مراحل سنك
٦	٥	٤	٣	٢	١	١٢ أن لديك العديد من التجارب لتصبح شخصاً أفضل
٦	٥	٤	٣	٢	١	١٣ أن لديك الثقة لتعبر عن آرائك
٦	٥	٤	٣	٢	١	١٤ أن حياتك لها هدف ومعنى

Parental Authority Questionnaire (PAQ)

حدد (حددي) درجة موافقتك أو عدم موافقتك على هذه الجمل التي تصف علاقة الوالدين (الأب والأم) مع أبنائهما وبناتهما. حدد (حددي) جوابك بواسطة وضع دائرة على الرقم المناسب بجانب كل جملة حسب القيم التالية:

١ = لا أوافق أبداً	٢ = لا أوافق	٣ = وسط	٤ = أوافق	٥ = أوافق بقوة
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أوافق بقوة	أوافق	وسط	لا أوافق	لا أوافق أبداً	
٥	٤	٣	٢	١	١ والداي يعتقدان بأن لأبنائهم الحق أن يختاروا طريقهم مثلما أن للوالدين الحق أن يختاروا طريقهما
٥	٤	٣	٢	١	٢ عندما لا يتوافق رأي والدينا مع رأينا، يعتقدان بأن مصلحتنا تتطلب إرغامنا على طاعة رأيهما
٥	٤	٣	٢	١	٣ والداي يتوقعان مني تنفيذ كل ما يطلبانه فوراً ودون أسئلة
٥	٤	٣	٢	١	٤ عندما يكون لوالداي رأي في شؤون العائلة فإنهما يفسرانه ويناقشانها مع أبنائهم
٥	٤	٣	٢	١	٥ والداي يشجعان تبادل الرأي والأخذ والعطاء عندما يعارض أبنائهم رأيهما
٥	٤	٣	٢	١	٦ والداي يعتقدان بأن لأبنائهم الحق أن يقرروا بأنفسهم ما يفعلون حتى لو كان ذلك يخالف رأي الوالدين
٥	٤	٣	٢	١	٧ والداي لا يسمحان بمجادلة قراراتهما
٥	٤	٣	٢	١	٨ والداي يوجهان سلوك أبنائهم بشكل منطقي ومؤدب
٥	٤	٣	٢	١	٩ والداي يعتقدان بأن على الوالدين استخدام قوة أكبر لجعل أبنائهم يتصرفون كما يجب
٥	٤	٣	٢	١	١٠ والداي يعتقدان بأنني أستطيع معارضة الأنظمة والقوانين، وأن لي الحق ألا أطيعهما بشكل أعمى
٥	٤	٣	٢	١	١١ والداي يوضحان لي توقعاتهما مني وفي نفس الوقت يقبلان مناقشة رأيهما عندما لا أوافقهما
٥	٤	٣	٢	١	١٢ والداي يعتقدان بأن على الوالدين أن يبينوا لأبنائهم منذ صغرهم من هو صاحب الكلمة الأخيرة في البيت
٥	٤	٣	٢	١	١٣ فلما يتدخل والداي بما أفعل أو يوجهان سلوكي
٥	٤	٣	٢	١	١٤ فيما يتعلق بشؤون العائلة، والداي يسيران دائماً حسب إرادة أبنائهم
٥	٤	٣	٢	١	١٥ والداي يوجهان أبنائهم باستمرار وبشكل موضوعي ومنطقي
٥	٤	٣	٢	١	١٦ والداي يغضبون عندما أحاول مخالفة رأيهما
٥	٤	٣	٢	١	١٧ والداي يعتقدان بأن مشاكل المجتمع ستحل لو توقف الوالدان عن تقييد سلوك ورغبات أبنائهم
٥	٤	٣	٢	١	١٨ والداي يحددان بوضوح ما يتوقعانه مني ويعاقباني بشدة عندما لا أستجيب لتوقعاتهما
٥	٤	٣	٢	١	١٩ والداي يسمحان لي أن أقرر معظم الأشياء التي تخصني دون تدخل أو توجيه منهما

أوافق بقوة	أوافق	وسط	لا أوافق	لا أوافق أبداً	
٥	٤	٣	٢	١	٢٠ والداي يأخذان رأي أبنائهم في الاعتبار عند التقرير في شؤون تخص أفراد العائلة
٥	٤	٣	٢	١	٢١ والداي لا يعتبران نفسيهما مسؤولين عن التحكم في سلوكي وعن توجيهي
٥	٤	٣	٢	١	٢٢ رغم أن لوالداي طريقة واضحة في التعامل مع أبنائهم إلا أنهما على استعداد لملاءمة هذا النهج أو الطريقة لحاجات أفراد العائلة
٥	٤	٣	٢	١	٢٣ والداي يوجهان سلوكي لكنهما مستعدان للإصغاء لرأيي وشعوري وأخذه بالاعتبار
٥	٤	٣	٢	١	٢٤ والداي يتركان لي كامل الحرية لأقرر ما أفعل ولاكُون رأيي الخاص بما يتعلق بشؤون العائلة
٥	٤	٣	٢	١	٢٥ والداي يعتقدان بأن المشاكل ستنحل في المجتمع لو أن الوالدين يستخدمان القوة والشدة عندما لا يتصرف أبنائهم كما يجب
٥	٤	٣	٢	١	٢٦ والداي يحددان لي بالضبط ما يريدان مني ويفرضان علي أن أنفذ ما يريدان
٥	٤	٣	٢	١	٢٧ والداي يوجهان سلوكي لكنهما يتفهماني عندما أخالفهم الرأي
٥	٤	٣	٢	١	٢٨ والداي لا يحاولان التحكم بسلوك ونشاط أبنائهم
٥	٤	٣	٢	١	٢٩ والداي حددا لي بالضبط ما يتوقعانه مني ولا يسمحان لي بمخالفتهم أبداً
٥	٤	٣	٢	١	٣٠ حين يتخذ والداي قرارا يسيء لي يكونان عادة على استعداد لمناقشة الأمر معي والاعتراف بخطئهما

Psychological State Scale

حدد (حددي) إلى أي مدى تتلاءم مع كل جملة من الجمل التالية بواسطة وضع دائرة على كل رقم بجانب كل جملة بحسب ما يلي:

لا = ٠	١ = غير متأكد	٢ = نعم
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نعم	غير متأكد	لا		
٢	١	٠	أشعر أنني ضائع وحائر	١
٢	١	٠	أشعر بقلق عند ذهابي للنوم	٢
٢	١	٠	أشعر أنني في حالة من الضيق والحزن الدائم	٣
٢	١	٠	أقوم بأفعال تخالف رأي من حولي	٤
٢	١	٠	أشعر أنني غريب ولا أنتمي لأحد	٥
٢	١	٠	أشعر بالأرق (عدم القدرة على النوم مرة أخرى) بعد فترة من النوم خلال الليل	٦
٢	١	٠	فقدت استمتاعي بالحياة	٧
٢	١	٠	أحب القيام بأعمال يمكن أن تؤذي الآخرين	٨
٢	١	٠	لست أعرف ماذا أريد من هذه الحياة	٩
٢	١	٠	أشعر أن أطرافي (يدي ورجلي) باردة في الغالب	١٠
٢	١	٠	أميل إلى العزلة (الوحدة) والابتعاد عن الآخرين	١١
٢	١	٠	التعامل مع الآخرين بعنف يجبرهم على احترامي	١٢
٢	١	٠	لست أعرف من أنا وماذا أريد	١٣
٢	١	٠	أشعر بالقلق أثناء قيامي بعمل ما أو مما سيحدث بعده	١٤
٢	١	٠	أشعر بالضيق والانفعال لأتفه الأسباب	١٥
٢	١	٠	أحب القيام بالأعمال التي تزعج الآخرين	١٦
٢	١	٠	أشعر أنني لا أفهم نفسي	١٧
٢	١	٠	أشعر بالخوف والقلق دون سبب واضح	١٨
٢	١	٠	أشعر برغبة دائمة في البكاء	١٩
٢	١	٠	كثيرا ما أخالف الأوامر التي تعطى لي	٢٠

Parental Overprotection Subscale of s-EMBU

فيما يلي عدد من العبارات التي تتصل بتصرفات والديك نحوك كما تختبرها، من فضلك اقرأ كل عبارة منها بعناية وحدد (حدي) اجابتك بواسطة وضع دائرة على الرقم المناسب بجانب كل جملة بحسب ما يلي:

١ = أبداً	٢ = نعم أحياناً	٣ = نعم كثيراً	٤ = نعم كل الوقت
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نعم كل الوقت	نعم كثيراً	نعم أحياناً	أبداً		
٤	٣	٢	١	أتمنى أن يكون قلق والداي أقل على ما أفعله.	١
٤	٣	٢	١	عندما أرجع الى المنزل يجب عليّ أن أقدم بياناً مفصلاً عما قمت به	٢
٤	٣	٢	١	والداي يمنعانني من عمل أشياء مثل زملائي الآخرين خوفاً من أن يحدث لي مكروه	٣
٤	٣	٢	١	والداي يُشعراني بالذنب إذا تصرفت بطريقة لا يحبّانها	٤
٤	٣	٢	١	أعتقد أن قلق والداي من أن يحدث لي شيء ما قلقاً مبالغاً فيه	٥
٤	٣	٢	١	والداي يسمحان لي أن أذهب إلى أي مكان أريده في حدود المعقول دون أن يهتمّا بذلك كثيراً	٦
٤	٣	٢	١	أشعر بأن والداي يتدخلان في كل شيء أفعله	٧
٤	٣	٢	١	والداي يضعان لي حدود صارمة للمسموح به الممنوع عمله ويلتزمان بها	٨
٤	٣	٢	١	يريد والداي أن يقررا ماذا يجب أن ألبس وماذا يجب أن يكون عليه مظهري العام	٩

Basic Needs Satisfaction in General Scale (BNSG-S)

فيما يلي قائمة بعبارات تتضمن أنماطاً لبعض الحاجات التي يحتاجها الأفراد في مواقف الحياة المختلفة، لذا يرجى منك قراءة كل عبارة جيداً، وتحديد اجابتك بواسطة وضع دائرة على الرقم المناسب بجانب كل جملة بحسب ما يلي:

١ = غير صحيح اطلاقاً	٢ = غير صحيح أبداً	٣ = غير صحيح	٤ = صحيح إلى حد ما	٥ = صحيح	٦ = صحيح جداً	٧ = صحيح تماماً
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١	٢	٣	٤	٥	٦	٧	
غير صحيح اطلاقاً	غير صحيح أبداً	غير صحيح	صحيح إلى حد ما	صحيح	صحيح جداً	صحيح تماماً	
١	٢	٣	٤	٥	٦	٧	أشعر أنني حر في تحديد نمط حياتي
١	٢	٣	٤	٥	٦	٧	أحب الناس الذين أختلط بهم
١	٢	٣	٤	٥	٦	٧	معظم الوقت لا أشعر أنني إنسان كفؤ
١	٢	٣	٤	٥	٦	٧	أعاني من ضغوط في حياتي
١	٢	٣	٤	٥	٦	٧	الناس في غالب الأحيان يقدرون ما أقوم به من أعمال
١	٢	٣	٤	٥	٦	٧	أنسجم مع الناس الذين أخالطهم
١	٢	٣	٤	٥	٦	٧	أعيش لنفسي ولا يوجد لي علاقات اجتماعية كثيرة
١	٢	٣	٤	٥	٦	٧	اعبر عن آرائي وأفكاري بشكل حر
١	٢	٣	٤	٥	٦	٧	اعتبر الناس الذين أختلط بهم أصدائي
١	٢	٣	٤	٥	٦	٧	استطيع تعلم مهارات جديدة مهمة
١	٢	٣	٤	٥	٦	٧	في حياتي اليومية أقوم عادة بما يطلب مني
١	٢	٣	٤	٥	٦	٧	أجد الاهتمام ممن حولي
١	٢	٣	٤	٥	٦	٧	معظم الأحيان اشعر بنشوة الانجاز جراء النشاطات التي أقوم بها
١	٢	٣	٤	٥	٦	٧	الناس الذين أتعامل معهم يقدرون مشاعري ويضعونها بعين الاعتبار
١	٢	٣	٤	٥	٦	٧	في حياتي لم تتح لي الكثير من الفرص لإظهار قدراتي
١	٢	٣	٤	٥	٦	٧	أصدقائي قليلون وعلاقتي محدودة
١	٢	٣	٤	٥	٦	٧	اشعر بأنني أعبر عن ذاتي في حياتي اليومية
١	٢	٣	٤	٥	٦	٧	اشعر بالعزلة مع الناس الذين أتعامل معهم

صحيح تماماً	صحيح جداً	صحيح	صحيح إلى حد ما	غير صحيح	غير صحيح أبداً	غير صحيح اطلاقاً	
٧	٦	٥	٤	٣	٢	١	١٩ في العادة لا اشعر بأنني قادر على القيام بواجباتي
٧	٦	٥	٤	٣	٢	١	٢٠ لا يوجد أمامي فرص كثيرة لكي أقرر بنفسي كيفية القيام بمهامي اليومية
٧	٦	٥	٤	٣	٢	١	٢١ الناس الذين أتعامل معهم يكونون شيء من الود تجاهي

العمر: _____

الجنس: أنثى ذكر

الجنسية: لبناني لبناني + جنسية أخرى غير لبناني

Appendix F

- Positive Mental Health Scale (MHC-SF)

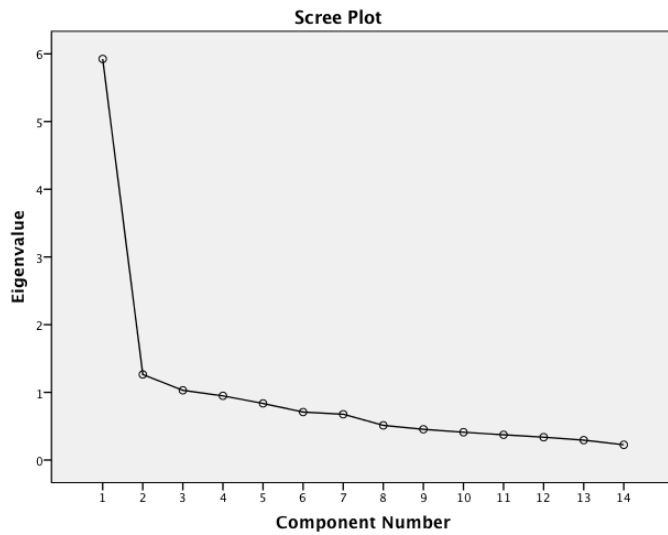
Principal Component Analysis with Fixed Number of Factors to Extract (3) with Oblimin rotation.

Pattern Matrix ^a			
	Component		
	1	2	3
interested in life	.85		
satisfied with life	.82		
happy	.77		
that people are basically good	.55		
good at managing the responsibilities of your daily life	.44		
that our society is a good place, or is becoming a better place, for all people	.42		
that the way our society works makes sense to you	.40		
that you had warm and trusting relationships with others		.84	
that you belonged to a community (like a social group, or your neighborhood)		.79	
that you had experiences that challenged you to grow and become a better person		.54	.41
that you liked most parts of your personality		.44	
that you had something important to contribute to society			.79
that your life has a sense of direction or meaning to it			.67
confident to think or express your own ideas and opinions		.51	.55

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 20 iterations.



Principal Component Analysis with Fixed Number of Factors to Extract (2) with Oblimin rotation.

Pattern Matrix^a

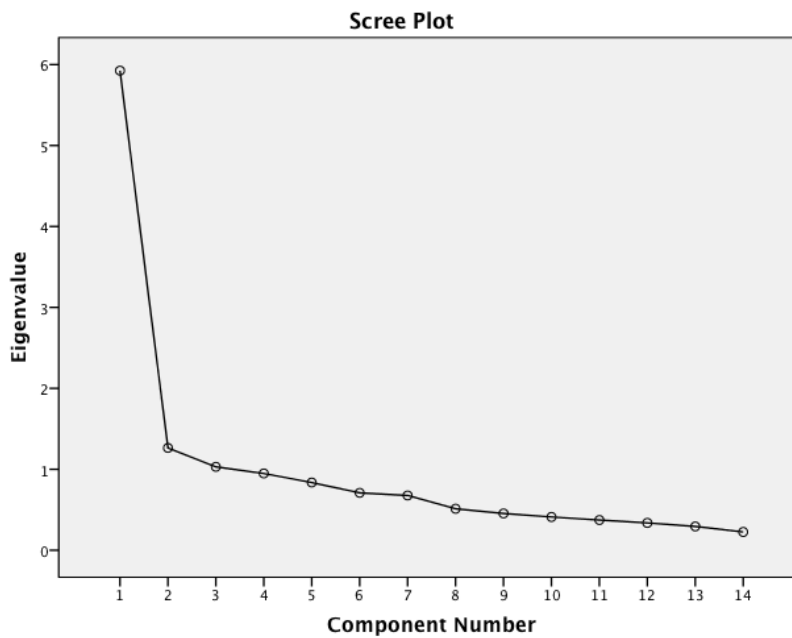
	Component	
	1	2
interested in life	.87	
satisfied with life	.85	
happy	.79	
that people are basically good	.59	
good at managing the responsibilities of your daily life	.55	.30
that you had something important to contribute to society	.54	
that your life has a sense of direction or meaning to it	.46	.31
that the way our society works makes sense to you	.43	
that our society is a good place, or is becoming a better place, for all people	.39	
that you had warm and trusting relationships with others		.82

confident to think or express your own ideas and opinions		.77
that you had experiences that challenged you to grow and become a better person		.74
that you belonged to a community (like a social group, or your neighborhood)		.71
that you liked most parts of your personality	.33	.52

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.



- Negative Mental Health Scale (Psychological State Scale):

Principal Component Analysis - Fixed Number of Factors to Extract (4) – Oblimin rotation

Pattern Matrix ^a				
	Component			
	1	2	3	4
I feel that I am about to cry	.71			
I feel fear and anxiety without clear reason	.66			
I feel distressed for any reason	.60			
I feel anxious while I do things and afraid of what will come next	.51			
I feel sad most of the time	.48			.47
I feel anxious when I go to sleep	.45			.44
I like to do things that bother others		.78		
I like to do things that hurt others		.74		
I disobey orders always		.64		
Using violence makes others respect me		.60		
I do things that oppose others opinions		.49		
I do not know who I am and what I want			.88	
I do not know what I want in this life			.86	
I feel that I do not understand myself			.54	
I feel lost and confused			.43	
I do not enjoy life				.55
I wake up and cant fall asleep again after a short time of sleep,\				.54
I feel that my limbs are cold most of the time				.52
I prefer to be alone away from people				.43

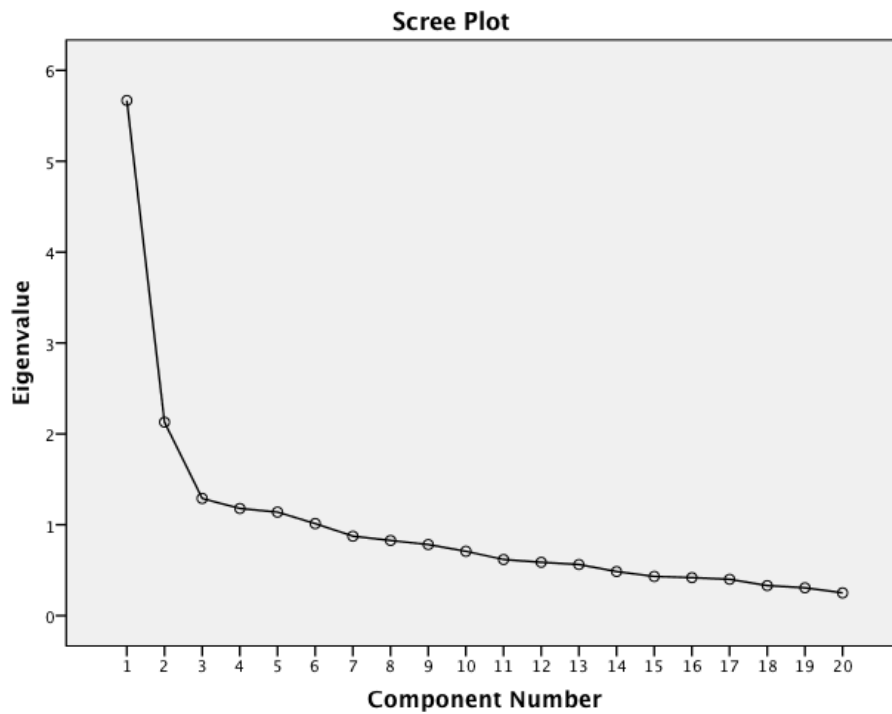
I feel strange and do not belong
to anybody

.42

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 23 iterations.



Principal Component Analysis - Fixed Number of Factors to Extract (3) – Oblimin rotation

Pattern Matrix^a

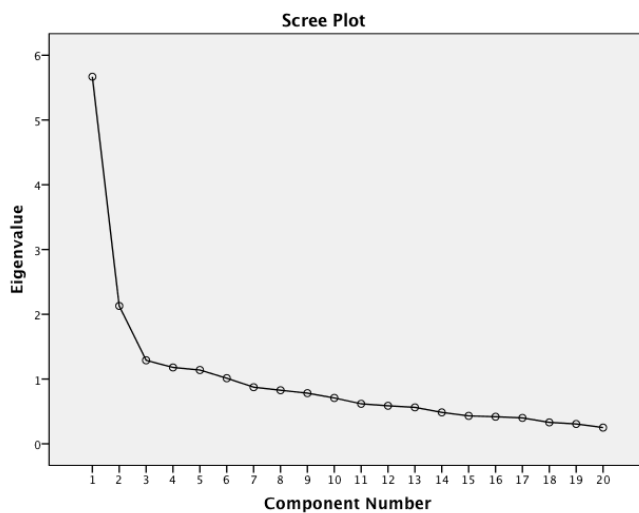
	Component		
	1	2	3
I feel that I am about to cry	.75		
I feel sad most of the time	.73		
I feel anxious when I go to sleep	.70		
I feel fear and anxiety without clear reason	.66		
I wake up and cant fall asleep again after a short time of sleep,\	.65		
I feel distressed for any reason	.55		

I do not enjoy life	.38	
I feel anxious while I do things and afraid of what will come next	.37	.34
I feel that my limbs are cold most of the time	.35	
I like to do things that bother others		.81
I like to do things that hurt others		.77
I disobey orders always		.61
Using violence makes others respect me		.60
I do things that oppose others opinions		.47
I feel strange and do not belong to anybody	.32	.34
I prefer to be alone away from people		.33
I do not know who I am and what I want		.91
I do not know what I want in this life		.89
I feel that I do not understand myself		.56
I feel lost and confused	.42	.44

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 7 iterations.



- Parental Authority Questionnaire:

Principal Component Analysis - Fixed Number of Factors to Extract (3) - Oblimin

Pattern Matrix ^a			
	Component		
	1.00	2.00	3.00
My parents give me direction for my behavior and activities and expect me to follow the direction, but they are always willing to listen to my concerns and to discuss that direction with me.	.82		
If my parents made a decision in the family that hurt me, they are willing to discuss that decision with me and to admit if they made a mistake.	.71		
My parents consistently give us direction and guidance in rational and objective ways.	.70		
I know what my parents expect of me in my family, but I also feel free to discuss those expectations with my parents when I feel that they are unreasonable.	.65		
My parents direct the activities and decisions of the children in the family through reasoning and discipline.	.62		
My parents encourage verbal give-and-take whenever I have felt that family rules and restrictions were unreasonable.	.62		

My parents have clear standards of behavior for the children in our home, but they are willing to adjust those standards.	.61
My parents take the childrens opinions into consideration when making family decisions, but they do not decide on	.61
Once family policy has been established, my parents discuss the reasoning behind the policy with the children in the family.	.54
My parents give me clear direction for my behaviors and activities but they also understand when I disagree with them.	.50
My parents do what children in the family want when making family decisions.	.65
My parents allow me to decide most things for myself without a lot of direction from them.	.63
My parents seldom give me expectations and guidelines for my behavior.	.60
My parents think that children have the right to make up their own minds and do what they want to do, even if this does not agree with their parents opinion.	.58
My parents do not view themselves as responsible for directing and guiding my behavior	.58
My parents do not think I need to obey rules and regulations of behavior simply because someone in authority had established them.	.57

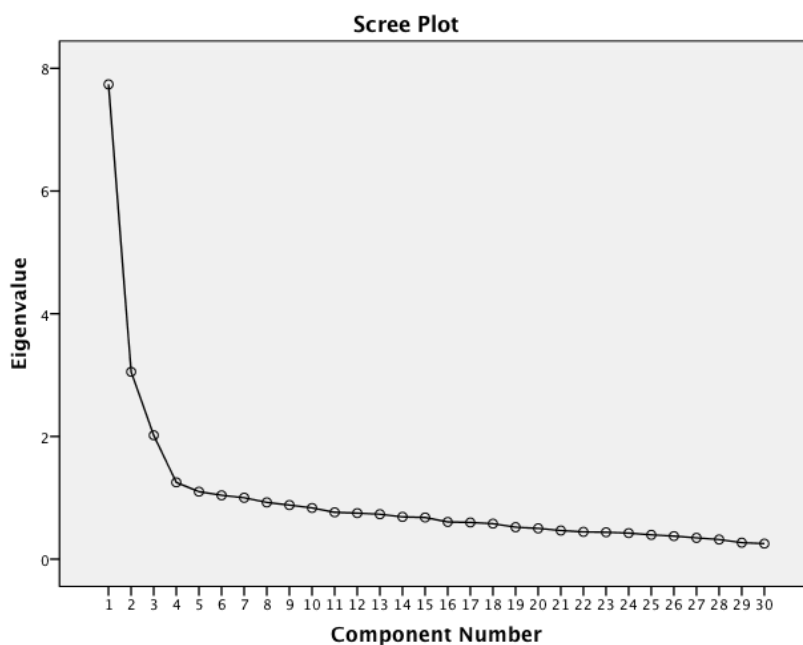
My parents allow me to form my own point of view on family matters and they generally allow me to decide for myself what I do.	.51
My parents do not direct the behaviors, activities, and desires of the children in the family	.49
My parents think that most problems in society would be solved if parents would not restrict their childrens activities, decisions, and desires as they are growing up.	.46
My parents think that in a well-run home the children should have their way as often as the parents do.	.42
My parents often tell me exactly what they want me to do and how they expect me to do it.	.75
My parents let me know what behavior they expect of me, and if I dont meet those expectations, they punish me.	.70
My parents feel that more force should be used by parents in order to get their children to behave the way they are supposed to.	.67
My parents feel that wise parents should teach their children early just who is boss in the family.	.64
As I was growing up I know what my parents expect of me in the family and they insist that I conform to those expectations simply out of respect for their authority.	.62

My parents feel that most problems in society would be solved if we could get parents to strictly and forcibly deal with their children	.59
My parents do not allow me to question any decision they made	.52
Whenever my parents tell me to do something , they expect me to do it immediately without asking any questions.	.50
My parents get very upset if I try to disagree with them.	.50
Even if their children do not agree with them, my parents feel that it is for our own good if we are forced to conform to what they think is right.	.43

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 12 iterations.



- Basic Needs Satisfaction Scale:

Principal Component Analysis - Fixed Number of Factors to Extract (3) - Varimax

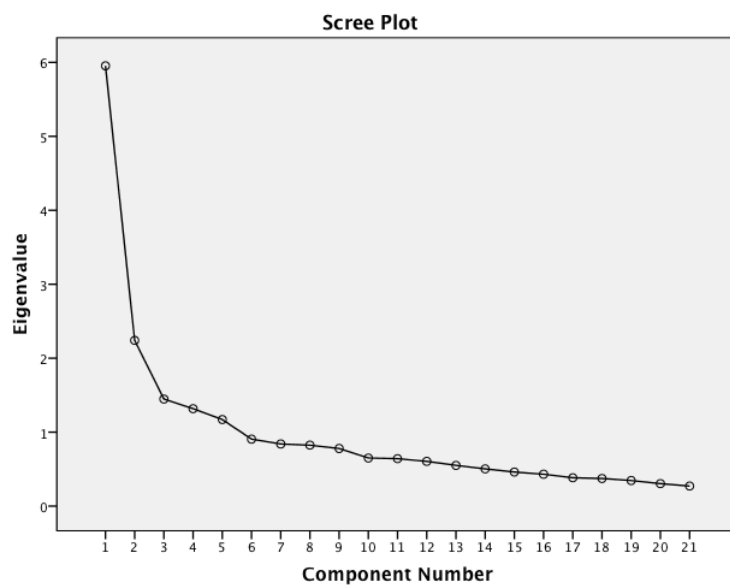
Rotated Component Matrix ^a			
	Component		
	1	2	3
I get along with people I come into contact with.	.68	-.34	
People in my life care about me.	.67		
People I interact with on a daily basis tend to take my feelings into consideration.	.65		
I have been able to learn interesting new skills recently.	.64		
I feel like I can pretty much be myself in my daily situations.	.62		
Most days I feel a sense of accomplishment from what I do.	.61		
I really like the people I interact with.	.61	-.35	
People I know tell me I am good at what I do.	.60		
In my daily life, I frequently have to do what I am told.	.57		
People are generally pretty friendly towards me.	.53		
I consider the people I regularly interact with to be my friends.	.53	-.34	
I generally feel free to express my ideas and opinions.	.46		
I feel like I am free to decide for myself how to live my life.	.39		

There are not many people that I am close to.	.79	
I pretty much keep to myself and don't have a lot of social contacts.	.78	
The people I interact with regularly do not seem to like me much.	.75	
I feel pressured in my life.	.42	.40
I often do not feel very capable.		.81
There is not much opportunity for me to decide for myself how to do things in my daily life.		.73
Often, I do not feel very competent.		.65
In my life I do not get much of a chance to show how capable I am.		.54

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.



Appendix G

Regression Assumptions

With a sample size of 293 participants, the assumption of the ratio of cases to IVs was met since the minimum required sample size for testing individual predictors is 108 participants (e.g. $104 + 4$ predictors), and for testing the overall model is 82 (e.g. $50 + 8 \cdot 4$) (Tabachnick & Fidell, 2013).

The histograms with normal curve, p-plots, and scatterplots for basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health, are displayed in figures 1, 2, and 3 below. The examination of residual scatterplots indicated that the assumptions of normality, linearity, and homoscedasticity between the predicted basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health scores and the errors of prediction have been met (Tabachnick & Fidell, 2013).

The correlation matrices of all predictor variables was scanned in order to investigate whether any two variables were correlating highly ($r > .80$), thus creating multicollinearity problems (Field, 2009). Furthermore, All the VIF values are below 10, while all of the Tolerance values are greater than 0.2. No problems of multicollinearity or singularity between the independent variables existed (Field, 2009).

The assumption of independence of errors was checked using the Durbin-Watson statistic which measures the auto-correlations of errors over a sequence of cases. The statistic usually ranges between 0 and 4 with a value close to 2 indicating that the assumption has been met. For these regression analyses, Durbin-Watson statistics were at 2.10 / 1.64 / 2.09 for basic psychological needs satisfaction, perceived negative mental health, and perceived positive mental health, respectively, which means

that the assumption of independence of errors has been met. Regarding outliers, as has been stated above, no outliers were detected in the data. Additionally, no cases proved to be influential, hence all cases were retained in the analysis.

The assumptions of regression analyses are that residuals are normally distributed about the predicted DV scores, that residuals have a straight-line relationship with predicted DV scores, and that the variance of residuals about predicted scores is the same for all predicted scores. Specifically, an “examination of residuals scatterplots provides a test of assumptions of normality, linearity and homoscedasticity between predicted DV scores and errors of prediction” (Tabachnick & Fidell, 2013, p.119). Therefore, three graphs were requested with every multiple regression analysis: regression of standardized predicted values over regression of standardized residuals (Z_{pred}/Z_{resid}), normal P-P plots of regression standardized residuals, and standardized residuals’ histograms with normal curves. All three graphs showed satisfactory results (see Figures 1a through 3c).

Specifically, to assess for the assumption of normality normal P-P plots of regression standardized residuals, and standardized residuals’ histograms (Figure 1a, 1b, 1c) with normal curves were examined. The histogram looked reasonably normally distributed, which indicated that the normality of errors assumption was met. Additionally, the normal P–P plot (Figure 2a, 2b, 2c) verified this because the dashed line did not deviate much from the straight line.

Additionally, the regression of standardized predicted values over regression of standardized residuals (Z_{pred}/Z_{resid}) used to assess for linearity and homoscedasticity had an oval shape (Figure 3a, 3b, 3c), which is typical of homoscedasticity and hence indicated the same variance across the residuals. Moreover, the data was also said to be

linear because the data seemed to have an oval and non-curved shape and this indicated an acceptance of the assumption of linearity as well, and hence both assumptions of homoscedasticity and linearity were met.

Figure 1. Histograms with Normal Curve (Basic Psychological Needs Satisfaction, Perceived Negative Mental Health, and Perceived Positive Mental Health)

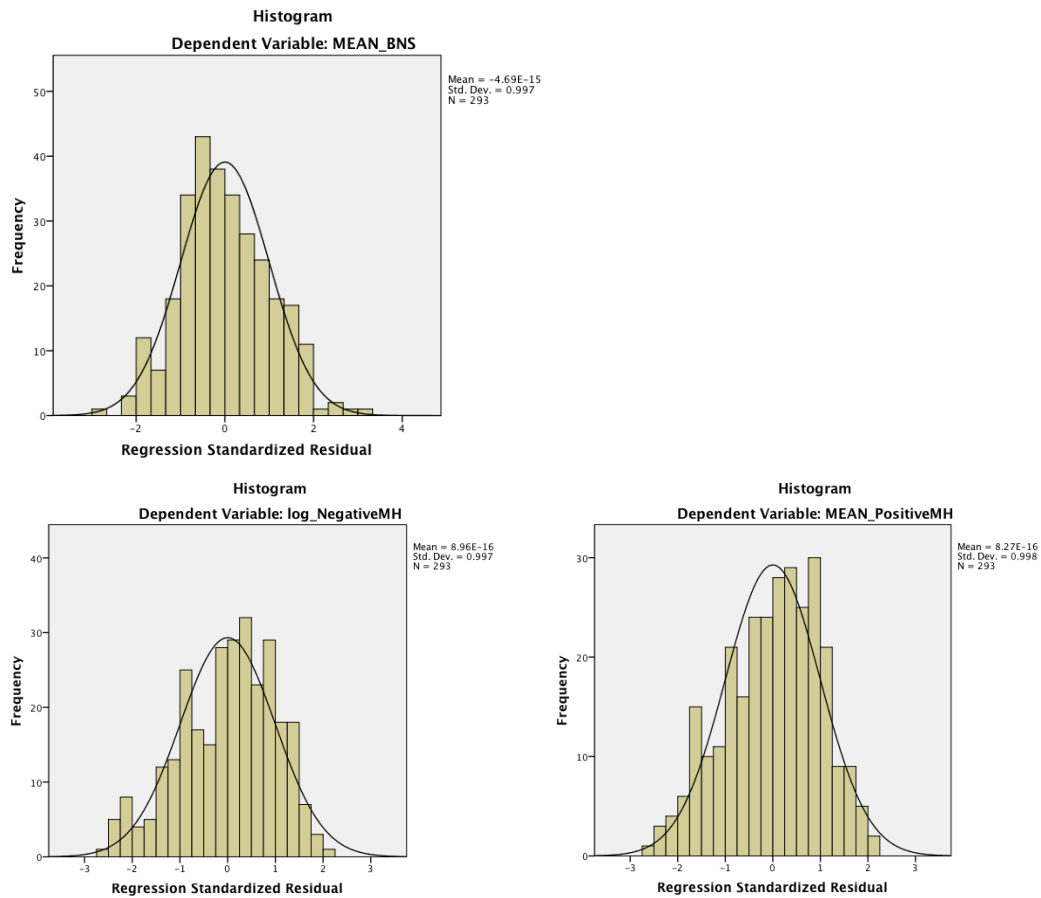
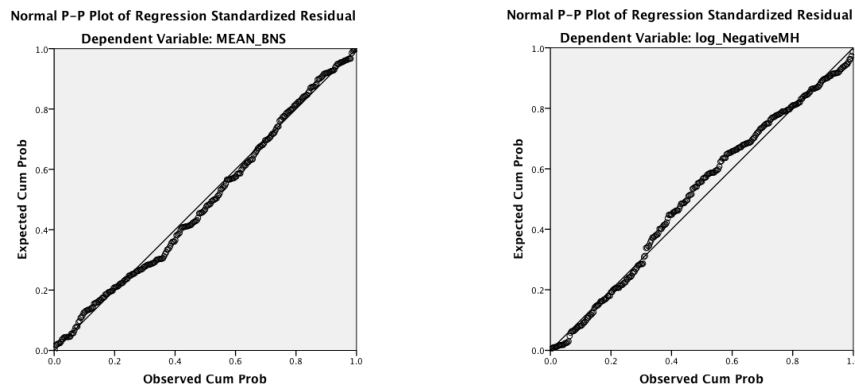


Figure 2. P-P Plots (Basic Psychological Needs Satisfaction, Perceived Negative Mental Health, and Perceived Positive Mental Health)



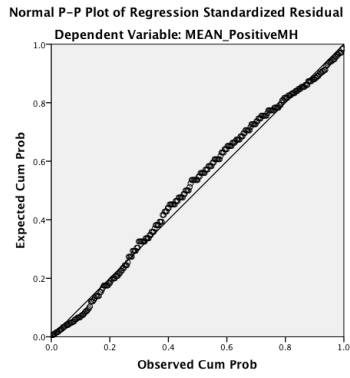


Figure 3. Regressions Of Standardized Predicted Values Over Regression of Standardized Residuals (Z_{pred}/Z_{resid}) (Basic Psychological Needs Satisfaction, Perceived Negative Mental Health, and Perceived Positive Mental Health)

