AMERICAN UNIVERSITY OF BEIRUT

THE EFFECT OF DIVORCE ON THE SIBLING RELATIONSHIP IN A SAMPLE OF UNIVERSITY STUDENTS

by

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AN ABSTRACT OF THE THESIS OF

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In recent years, divorce rates in Lebanon have greatly increased reaching 14% in 2010 (Information International) yet there have been no studies examining the effects divorce has on children and family dynamics. While reviewing the international literature on the topic, divorce was shown to have predominantly negative effects on children's adjustment and on sibling relationship quality. Researchers have explored variables such as perceived parental conflict and parentification in divorced families and found that it is these constructs that account for the negative effects rather than divorce itself. It has also been found that social support can be a significant protective factor against the adverse effects of divorce. The present study investigated the effect of divorce on the sibling relationship in a sample of 161 university students while also examining the effects of parentification, perceived parental conflict and social support. The results showed that divorce had no effect on the sibling relationship whereas parentification negatively affected the sibling relationship while perceived parental conflict and social support positively affected it. The clinical implications, limitations, and recommendations for future research are discussed.

Keywords: Sibling relationship, divorce, parentification, social support

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CHAPTER I

OVERVIEW OF DIVORCE IN LEBANON

In 2010, divorce rates in Lebanon were at a much lower recorded prevalence rate of 14% (Information International, 2010) as compared to the 41-50% prevalence rates in the United States of America (divircestatistics.info). However, even though there are fewer divorces in Lebanon than in the US, divorce rates in our country have been on the rise over the past decade with an increase of 23% recorded between 2006 and 2007 (Information International).

In Lebanon, divorce and custody laws vary depending on religious sects. While it is easy for couples of some sects to divorce it is virtually impossible for others. The commonality between all sects is that the mother gains custody of the children until a certain age after which they are in the custody of their father. The custody age for boys varies between the sects and ranges from 2 years old as set by the Shiite sect to 14 years old for the orthodox sect. For girls, on the other hand, the custody age ranges from 7 years old as set by the Shiite sect to 15 years old for the orthodox sect. If the mother marries before the set age she loses custody of her children but still gets visitation rights. At the age of 18, the children are allowed to choose which parent they prefer to live with (I. Ammar, personal communication, May 24, 2013[1]). The instability associated with changing caregivers and living environments may have detrimental effects on the wellbeing of the children.

CHAPTER II

THE IMPACT OF DIVORCE ON CHILDREN

The impact of divorce on children has been a topic of interest to many researchers over the decades. Among the reasons for this interest in the topic is the increase in the number of divorces as well as the increase in awareness about the consequences of divorce on children.

Mixed findings are present in the literature on the effects of divorce on children. Several studies reach the conclusion that children of divorce tend to have an overall worse adjustment than do children whose parents are not divorced (Faber & Wittenborn, 2010; Kelly & Emery, 2003; Dong, Wang & Ollendick, 2002; Moon, 2011). In a recent study, Uphold-Carrier and Utz (2012) recruited middle aged participants whose parents divorced during childhood and adulthood. Their results demonstrated that those who had divorced parents showed higher rates of depression, regardless of their age at the time of divorce, when compared to adults whose parents were still married. Another study examining the effects of divorce on mental health produced similar findings (Angarne-Lindberg & Wadsby, 2010). In this study, half of the adult participants had experienced parental divorce up to twenty years prior while the other half had married parents. Looking at the past psychiatric records of adults whose parents were divorced versus those whose parents were married, it was found that children whose parents were divorced sought more psychiatric care during childhood and adolescence. There were, however, no significant differences in seeking psychiatric care during adulthood between adults whose parents were divorced and those whose parents were still married. This may provide evidence that the detrimental effect of divorce on the mental health of children is not permanent (Angarne-Lindberg & Wadsby, 2010). Another possible explanation to this finding could be that the

participants, having already been to therapy as children and adolescents, did not need therapy in adulthood. Therefore, these results should be interpreted cautiously. Lansford (2009) also found that children whose parents were divorced tended to have more aggressive behavior, psychological or emotional problems, poor school performance and low social relationship quality. The age of the child at the time the divorce occurred however, proved to be an important factor, such that the younger children had worse emotional adjustment than the older children. When divorce occurred at a younger age the children exhibited more aggressive behavior and suffered from psychological or emotional problems. When the divorce occurred during adolescence, it was more likely to have adverse effects on the academic performance and social relationships of the adolescent.

In countries with lower prevalence rates of divorce, it is expected that divorce would have more negative outcomes due to the stigma associated with it. In China, for example, divorce rates vary from 10 to 15%. In a study conducted on 1294 children and their parents, it was found that children from divorced families scored higher on measures of depression and anxiety, suggesting a lower level of adjustment than children from non-divorced families (Dong, Wang & Ollendick, 2002). Because the rates of divorce are much lower in China, the authors suggested that there is higher stigma related to divorce than there is in the United States. These results are consistent with findings from Lau (2008) who studied children's emotional wellbeing and self-esteem after divorce while studying the mediator effect of parental conflict in China. It was found that children of divorce have lower emotional wellbeing than children whose parents are not divorced as evidenced by higher rates of depression and lower self-esteem. Parental conflict did not have an effect on children's wellbeing as it was found that children suffered adverse effects of divorce whether their parents still had a conflictual relationship after divorce

or a more harmonious collaborative relationship. In another study conducted in China comparing children whose parents are divorced with children whose parents are married, it was shown that divorced negatively impacted children's wellbeing when they had poor school performance and were subjected to stigma from their society. The authors explain that the Chinese culture places great importance on academic achievement and that was evident in their sample. When their participants from the divorced group reported good school performance, they also had higher self-esteem scores and were less likely to be ostracized by their peers. Therefore, good school performance was found to be a protective factor against the negative effects of divorce. Also, the authors reported that divorce is viewed negatively in China and when their participants reported being exposed to negative attitudes from the people around them, they were more likely to suffer emotionally following divorce especially when they did not perform well academically (Xu, Zhang & Xia, 2008). This is important to keep in mind since divorce rates in Lebanon are similar to those in China.

A. The Effects of Parental Conflict and Divorce on Children

Even though divorce itself can have detrimental effects on children, some factors such as parental conflict also contribute to the detrimental consequences of divorce as found in studies conducted in Europe and the United States of America. According to the literature, parental conflict refers to instances when parents disagree with one another and express their disagreement through verbal arguing, being verbally aggressive, being distant from one another, not talking to one another or having physical fights (Zimet & Jacob, 2001; Black & Pedro-Carroll, 1993). Even in intact families, it was shown that parental conflict negatively affects children. In a longitudinal study conducted by Harold, Shelton, Goeke-Morey and Cummings (2004), participants who reported high levels of parental conflict had lower scores of emotional

security and reported higher symptoms of emotional distress than did the participants reporting lower parental conflict rates. The results were similar in a study conducted by Faircloth and Cummings (2008) who, after controlling for parenting practices and maternal depression, found that parental conflict had significant adverse effects on children's adjustment. A second longitudinal study also examined the effect of parental conflict on children's adjustment. This study demonstrated the stability of interparental conflict over time such that conflict reported early in the marriage was still significant five years later. The results similarly demonstrated that the more conflictual the parental relationship, the lower the adjustment of the child and this maladjustment endured through to adolescence. Low adjustment here was defined by internalizing behavior, such as social withdrawal and emotional distress, and externalizing behavior, such as bullying peers or disobedience to authority figures (Gerard, Krishnakumar & Buehler, 2006). According to a review of the literature on parental conflict it was found that the more frequent and intense a conflict is the more likely it is to have detrimental effects on children. It was also found that when the child is the topic of the conflict, he/she is affected more negatively. Finally, it was found that when conflict is resolved it is less likely to negatively impact children than when it is not resolved (Zimet & Jacob, 2001).

Faber and Wittenborn (2010) claim that the level of parental conflict that was present in the family is a predictor of children's adjustment after divorce. They found that when there was high conflict between the parents, the children tended to be more poorly adjusted. When, on the other hand, there were low levels of conflict and good conflict resolution skills, the children were better adjusted. The same finding was supported by a study examining differences in conflict between married and divorced families and its effect of self-esteem, depression and anxiety (Noller, Feeney, Sheehan, Darlinton & Rogers, 2008). It was found that there was more conflict

in divorced families than in intact families. This higher level of conflict was associated with lower levels of self-esteem and higher rates of anxiety and depression in children. Another study conducted on college freshmen whose parents were divorced also showed that when parental conflict was higher, college freshmen had more symptoms of psychological disorders than participants who rated their parental relationship as less conflictual (Hannum & Dvorak, 2004). In a longitudinal study conducted by Amato, Loomis and Booth (1995), it was shown that it is parental conflict and not divorce in itself that predicts lower levels of children's wellbeing. In their study, the results showed that when there was conflict between the parents, the children were more negatively affected when the parents stayed married than those whose parents got divorced. Participants who reported low parental conflict however, were more negatively affected when their parents got divorced than those whose parents stayed together.

B. Social Support

According to the literature a protective factor against the detrimental effects of divorce is social support (Amato, 2000). In a recent study conducted on Chinese college students, it was shown that students who reported good social support after negative life events such as divorce had better mental health than those who experienced negative life events without social support (Peng, Zhang, Li, Li, Zhang, Zuo, Miao & Xu, 2012). According to Hetherington, social support from any source helps buffer against the detrimental effects of parental divorce (Hetherington, 2003). Similarly in a study conducted by Wolchick, Ruehlman, Braver and Sandler (1989), it was shown that social support from adult extended family members was significantly correlated with child adjustment such that the more support a child gets the better adjusted he/she is after parental divorce. The results were similar in a study conducted by Bouchard and Drapeau (1991). In their study, however, it was shown that teachers and baby sitters were the primary source of

social support to children of divorce. During adolescence, the main source of social support was found to be provided by friends (Lustig, Wolchick & Braver, 1992).

CHAPTER III

THE IMPACT OF DIVORCE ON THE SIBLING RELATIONSHIP

A. The Importance of the Sibling Relationship

The sibling relationship is one of the longest lasting relationships in one's life (Whiteman, McHale & Soli, 2011). In a longitudinal study examining the protective factors of the sibling relationship against stressful life events, it was shown that sibling relationship quality is predictive of child psychological adjustment to family and life stressors such that the better the sibling relationship quality the more protective it is against stressful life events such as divorce. Their results also showed that a positive sibling relationship was protective against internalizing and externalizing behavior of the children regardless of the quality of the parent-child relationship. Even in instances when the parent-child relationship was conflictual, having a positive sibling relationship was associated with better child adjustment (Gass, Jenkins & Dunn, 2007). In another study, the authors explored the relationship between trustworthiness between siblings and internalizing or externalizing behaviors during adolescence. It was found that the more trustworthy the relationship between siblings was, the less likely it was for them to develop behavioral or emotional problems during adolescence (Gamble, Yu & Kuehn, 2011). Another longitudinal study followed siblings from middle childhood to adolescence to examine the quality of the sibling relationship over this transition and its relation to psychological adjustment (Kim, McHale, Crouter & Osgood, 2007). The results showed that siblings rating their

relationship as more intimate had more positive relationships with peers and reported fewer psychological problems and externalizing behavior over the transition to adolescence. Milevsky (2005) examined the effect of sibling support on wellbeing over the transition to adulthood. The results of his study showed that the more supportive siblings were to each other the less likely it was for them to suffer from depression over the transition to adulthood. It was also shown that more sibling support was associated with higher self-esteem and life-satisfaction. Just like a positive sibling relationship has been linked to better social and psychological adjustment, poor sibling relationships have been linked with internalizing problems such as depression and anxiety as well as externalizing problems such as delinquent behavior (Branje, van Leishout, van Aken, & Haselager, 2004). This evidence points to the importance of the sibling relationship in one's life and its potentially protective nature against stressful life events such as parental divorce.

B. Predictors of Sibling Relationship Quality after Divorce

Studies on the effects of divorce on sibling relationship quality are scarce. One study conducted by Sheehan, Darlington, Noller and Feeney (2004) found that siblings who have divorced parents reported greater hostility between them than siblings whose parents are still married. The results also showed that siblings who have divorced parents scored higher on intense affect than did the siblings whose parents are still married. Intense affect was defined as strong feelings, positive or negative, ranging from warmth to hostility. This finding suggests that not only did the siblings with divorced parents score higher on levels of hostility; they also scored higher on measures of nurturance and mutual conflict resolution. Therefore, these authors labeled the sibling relationship as emotionally intense such that even though there may be conflict between the siblings, this enduring relationship can also serve as a protection against the potentially negative effects of divorce (Sheehan et al, 2004). In another study, researchers

compared adolescent siblings who have divorced parents to adolescents whose parents are married on sibling relationship quality (Tucker, Barber & Eccles, 2001). In this study they considered the person the adolescent seeks advice from as the closest person to them in their family. The results of the study showed that compared to adolescents from intact families, adolescents whose parents were divorced sought the same amount of advice from their mothers but significantly less advice from their siblings and fathers, indicating that the sibling relationship in adolescence suffered after parental divorce (Tucker, Barber & Eccles, 2001). Milevsky (2004) also conducted a study examining sibling relationship quality after divorce in a sample of young adults. The results of the study showed that young adults whose parents were divorced rated their relationship with their sibling as lacking communication, support and warmth as compared to young adults whose parents are married. Therefore, consistent with previously discussed studies, sibling relationship quality in this study suffered after parental divorce (Milevsky, 2004). Other studies sought to identify more specific predictors of the quality of the sibling relationship (Poortman & Voorpostel, 2009; Riggio, 2001; Ackerman et al, 2011). These predictors are discussed below.

C. The Impact of Parental Conflict on the Sibling Relationship

The conflictual relationship between parents has been shown to have negative effects on children. Therefore, Ackerman et al. (2011) aimed to examine the relationship between parental behavior and sibling behavior during conflict resolution discussions. They videotaped over 400 non-divorced families over three years during a yearly conflict-resolution discussion where the family would gather to solve a familial problem. The researchers were interested in examining the nature of the engagement within each subsystem, the parental and the sibling. Furthermore, they wanted to see if these patterns of interactions were stable across three years. The results

showed that there was stability in the nature of communication in the family, and when the spousal subsystem showed strong positive engagement, indicated by increased warmth, attentiveness, cooperation, and clear communication, so did the sibling subsystem. (Ackerman et al, 2011). These findings suggest that there seem to be similar interaction styles between the siblings as those between the parents. In their study, Yu and Gamble (2008) compared sibling relationships from three cultural backgrounds, they included in their sample Mexican-American, European-American and Taiwanese participants. The results of the study showed that more harmonious parental relationships were associated with more harmonious sibling relationships while more interparental conflict was associated with intersibling conflict. This result is consistent with Western findings outline above and shows that there is a consistency of results across cultures whereby parental conflict negatively impacts sibling relationship quality in individualistic and collectivistic cultures.

Poortman and Voorpostel (2009) found that siblings from divorced families seemed to be higher in conflict than siblings from non-divorced families. To better understand this finding, they examined the perceived parental relationship quality before the divorce occurred, to determine if there was a relationship between the parental and the sibling relationship. The participants were asked to recall five aspects of their parental relationship including heated arguments, serious remarks, lack of communication, living apart and escalating fights. The results they obtained showed that the more conflictual the siblings perceived their parental relationship to be prior to the divorce, the more likely it was for the siblings to have conflictual relationships themselves after divorce. The same result was obtained by Milevsky (2004) who identified perceived parental conflict as a mediator for sibling relationship quality after divorce.

In his study, it was shown that siblings had an overall worse relationship after divorce when they rated their interparental relationship as highly conflictual and dysfunctional.

D. The Child's Age at the Time of Divorce

Inconsistent results have been found about the effect of the age of the child at the time of divorce on the sibling relationship. One study has demonstrated that age at the time of divorce is a predictor of sibling relationship quality after divorce. According to Riggio (2001) siblings who experience parental divorce during their late childhood or adolescence tended to report more conflictual sibling relationships than do siblings whose parents divorced during early childhood. The sibling relationship of children whose parents divorced while they were younger did not differ from the relationships of siblings from non-divorced families. Therefore, while children have poorer adjustment when the divorce occurs in early childhood (Lansford, 2009), it appears that the relationship between siblings is not negatively impacted when the divorce happens in early childhood (Riggio, 2001). In another study, it was shown that the age at the time of divorce had no effect on sibling relationship quality after divorce. It was shown that the sibling relationship was rated negatively after divorce regardless of when the divorce occurred (Milevsky, 2004). These results should, however, be approached with caution because of the scarcity of the literature on the topic.

In contrast with all previously discussed findings, Frank (2007) conducted a study examining the effects of divorce, parental conflict and age at the time of divorce and the sibling relationship. There were no differences noted in the sibling relationship of the participants having divorced parents or those whose parents are married. Parental conflict and age at the time of divorce did not have an effect on the sibling relationship either. It is important to note,

however, that in this study, the participants were asked to rate their relationship with the sibling that they have the most meaningful connection with. This is in contrast with previous studies which asked the participants to rate their relationship with their sibling that is closest to them in age (Riggio, 2001; Sheehan et al.,2004; Tucker et al., 2001 and Yu & Gamble, 2008). It is also different from Poortman and Voorpostel (2009) who randomly selected the sibling whom the participant rated his relationship with and Reese-Weber (2000) who specified that the participants could not choose siblings with more than 4 years age difference. Therefore, the results of this study should be approached with caution as the participant is asked to rate his relationship with the sibling he is the closest to so it is to be expected that the relationship will be rated highly.

E. The Effect of Gender on the Sibling Relationship

Some studies on the sibling relationship suggests that the nature of this relationship evolves across the lifespan starting with rivalry in childhood and evolving to becoming a close friendship with the siblings relying on each other for support during different life circumstances (Volkom, Machiz & Reich, 2011). In their study, they examined whether gender, birth order and age spacing had any effect on the nature of the sibling relationship. The results showed that sibling rivalry was common during childhood and adolescence but decreased in adulthood. Gender effects also came into play with females reporting a closer relationship to their sibling that is closest in age regardless of whether the sibling is male or female. Also, females were more likely than males to lean on their siblings for emotional support during stressful times in their lives. Finally, female siblings tend to compare themselves to their sibling that is closest in age to them regardless of gender whereas males tend to compare themselves with a third sibling as well. Birth order and age difference did not have a significant effect on sibling relationships in

this study (Volkom, Machiz & Reich, 2011). This, however, was not the case as reported in the study conducted by Pollet and Nettle (2009). In their study, they found that first born children reported having better relationships with their siblings than did younger siblings. They also reported preferring their sibling over their friends, a result not found in later born children. It would, therefore, be interesting to examine what effect age, age difference and birth order have on sibling relationships.

F. Parentification

Family systems theory (Minuchin, 1974) suggests that family is a product of subsystems that are separated by boundaries which are there to regulate the way family members interact with one another. According to family systems theory, there are two main subsystems in the family, the spousal and the sibling subsystem. It is important for these subsystems to have boundaries separating one from the other. These boundaries must be clear to all members, giving each of them a role in the family. For example, the spousal subsystem's role is to provide for the family, raise the children and set the rules that family members should follow. The role of the child or sibling subsystem, on the other hand, is to obey these rules. Children interact and share activities with their parents while respecting their boundaries as parents and as a couple. A phenomenon referred to as parentification occurs when there has been a breach of boundaries such that a child is given tasks that are usually the responsibility of the parents and, in turn, plays the role of a parent instead of that of a child or sibling. Parentification is more likely to occur in large families, single parent households and in families with two working parents where the parents may feel overwhelmed and expect help from one or more of their children with raising their siblings (Minuchin, 1974).

Following a divorce, a parent usually moves out of the house leaving the family in a situation where new rules and boundaries need to be created. In this context, it is possible for one parent, usually the one who has custody of the children, to rely on one of his/her children for emotional support by sharing his/her concerns and asking for advice. This in itself is a breach of boundaries where the spousal subsystem has been broken, and the child is now in the place of the spouse. This phenomenon, referred to as parentification, occurs in different forms. Emotional parentification refers to instances where the child's emotional needs are neglected and he/she becomes responsible for fulfilling his/her siblings' and/or parents' emotional needs. Instrumental parentification refers to situations where the child takes on responsibilities around the house, financial or otherwise, that an adult would usually do (Boszormenyi-Nagy and Spark, 1984). Parent-focused parentification refers to when a child is expected to provide emotional or instrumental support to one of his/her parents. Sibling-focused parentification, on the other hand, refers to when a child is expected to provide emotional or instrumental support to his/her siblings (Hooper et al., 2011). According to the research, being parentified as a child has two possible outcomes. Parentification could have detrimental effects on adjustment and functioning such as academic struggles, substance abuse and mental health problems (Peris et al, 2008; Williams and Francis, 2010) or positive effects such as strong coping skills (Hooper, 2007; Hooper, Marotta and Lanthier, 2008).

Several studies on parentification suggest that this phenomenon occurs as a result of unpredictable events in the family such as parental divorce (Burnett et al, 2006; Jurkovic, Thirkield and Morrell, 2001; Peris et al, 2008; Williams and Francis 2010). Jurkovic, Thirkield and Morrell (2001) examined differences in parentification between adolescents whose parents were divorced and those whose parents were not divorced. The results showed that compared to

the non-divorced group, young adults with divorced parents were twice as likely to have experienced a negative form of parentification during childhood. They also reported offering more emotional support to their parents than did the participants in the control group. Finally, they reported high levels of perceived unfairness with regards to their experiences in their families. These children reported being treated unfairly by their parents when being given chores or adult responsibilities.

Children's perception of parentification plays an important role in their adjustment. In fact, this perception could account for the inconsistency in the literature on parentification. It was shown that when children perceive parentification as fair, they are more likely to be more resilient (Hooper, 2007; Hooper, Marotta and Lanthier, 2008, Hooper et al, 2011). The study described above examined the effect of parentification on children's adjustment; no studies, however, have looked at the effect of parentification on the quality of sibling relationships.

CHAPTER IV

AIMS AND HYPOTHESES

In the following study, we aim to determine the impact of divorce on the sibling relationship quality. While examining the literature, sibling relationship quality was more conflictual in children of divorce than in children whose parents are still married. Several main predictors emerged to explain the sibling relationship quality after divorce. The first of these predictors is the level of perceived conflict that was present between the parents such that the more conflictual the parental relationship, the more conflictual the sibling relationship (Sheehan et al, 2004; Poortman & Voorpostel, 2009). The second predictor of the sibling relationship

quality after divorce was the age of the child when the divorce occurred. The literature demonstrated that when the divorce occurs in early childhood, it is more likely that the relationship between siblings will be better than when divorce occurs later in the child's life (Riggio, 2001; Lansford, 2009). The third predictor of this relationship quality is parentification. Parentification has been shown in the research to have negative consequences on child adjustment (Peris et al, 2008; Willams & Francis, 2010). Finally, social support has shown to have protective effects on children's adjustment after divorce (Amato, 2000; Hetherington, 2003; Peng et al., 2012). However based on an extensive literature search through PsycINFO, PsycArticles and PILOTS Database, no studies appeared to have yet examined the effects of parentification and social support on the sibling relationship after divorce.

Similarly since there are no studies to date in Lebanon or in the region that have explored the effects of divorce on sibling relationship quality, the primary aims of the following study are two-fold: 1) to determine whether there are group differences in sibling relationship quality between young adults with divorced parents and those whose parents are still married and 2) the extent to which the following independent variables: social support, perceived parental conflict, age at time of divorce and parentification predict the sibling relationship quality. The study will control for the effects of gender, birth order and age spacing between the participant and his/her sibling, given that the impact of these variables on the sibling relationship have not shown conclusive findings (Volkom, Machiz & Reich, 2011; Pollet & Nettle, 2009).

The following hypotheses represent the first aim of the study:

The literature has shown that sibling relationships tend to be more conflictual in divorced families than non-divorced families (Shehan et al, 2004; Poortman and Voorpostel, 2009).

Hypothesis 1. Participants in the divorced group will score lower on their sibling relationship quality than those in the non-divorced control group while controlling for gender, age spacing and age at the time of divorce.

It has been determined that parentification occurs more frequently when there is a sudden change in the family system such as divorce (Minuchin, 1974; Peris et al, 2008; Jurkovic, Thirkield & Morrell, 2001).

Hypothesis 2. Participants in the divorced group will have higher parentification scores than participants in the non-divorced control group while controlling for gender, age spacing and age at the time of divorce.

The remaining hypotheses represent the second aim of the study.

The literature indicates that children with divorced parents are better adjusted when they have good social support (Amato, 2000; Hetherington, 2003; Peng et al., 2012). There are no studies exploring the effects social support has on sibling relationship quality. However, since social support has positive effects on children of divorce, we expect that people with social support have better sibling relationships than those who do not have social support.

Hypothesis 3. High social support scores will predict better sibling relationship quality while controlling for gender, birth order and age spacing.

The literature has shown that perceived parental conflict is associated with more conflict in the sibling relationship (Ackerman et al, 2011; Sheehan et al, 2004; Poortman & Voorpostel, 2009).

Hypothesis 4. High perceived parental conflict will predict lower sibling relationship quality while controlling for gender, birth order and age spacing.

The literature has shown that parentified children are more poorly adjusted than children who are not parentified (Peris et al, 2008; Willams & Francis, 2010). There is a lack, however, of studies examining the effects of parentification on the sibling relationship. Nevertheless, since the results of parentification seem to be negative we expect that participants who are parentified have lower quality sibling relationship than those who are not parentified.

Hypothesis 5. High parentification scores will predict lower sibling relationship quality while controlling for gender, birth order and age spacing.

It has been demonstrated that the older the siblings are when their parents got divorced, the more likely it is that their relationship with their siblings is more conflictual than those whose parents divorced during early childhood (Riggio, 2001). However, since the literature is scarce on this topic, this result should be considered cautiously.

Hypothesis 6. Age at the time of divorce will be a predictor of sibling relationship quality after divorce while controlling for gender, birth order and age spacing.

CHAPTER V

METHODOLOGY

A. Participants

One hundred and sixty one adult participants were recruited for this study. Fourty nine of those had divorced parents while 112 had married parents. Most participants were students

registered in the introductory psychology PSYC 201 course and received one extra point on their final grade upon completing the study while the rest were recruited from the general AUB population.

B. **Procedure**

Upon obtaining IRB approval, the consent form and questionnaires were put on LimeSurvey after which the study was advertised on the moodle page of the introductory psychology course PSYC 201. An informed consent form was made available for the participants on the first page of the survey with a brief description of the aims of the study (Appendix A & B). No deception was used in the following study. After receiving their consent, the participants were asked to fill out several questionnaires online. First, they filled out general information about themselves and their families including their age, gender, the age of the sibling they were filling the questionnaire about, the number of siblings in their family and the marital status of their parents (Appendix C). The participants were then asked to fill out five questionnaires including the Medical Outcomes Studies Social Support Survey (Sherbourne & Stewart, 1991; Appendix D), the Lifespan Sibling Relationship Scale (Riggio, 2000; Appendix E), the Interparental Conflict Scale (Black & Pedro-Carroll, 1993; Appendix F) and the Parentification Inventory (Hooper, 2009; Appendix G). The order in which the questionnaires are presented to the participants could not be counterbalanced to ensure that order effect is controlled for because that option is not available on LimeSurvey. After completion of the survey, the participants provided their names to the researchers who, in turn, gave the names to the PSYC 201 instructors and the participants were given their extra point for participation. Within 10 days, the number of participants reached 183 among which only 22 had divorced parents. Due to the low number of participants, the participants' pool was expanded to include the entire AUB population. Upon

IRB approval, the study was advertised on the Psychology Students Society Facebook page, on the psychology department website and flyers were distributed around AUB campus providing general information about the study with the link to the online survey.

C. Instruments

1. *The Medical Outcomes Studies Social Support Survey*. The MOS Social Support Survey is a 19 item self-report questionnaire that measures social support in one's life (Sherbourne & Stewart, 1991; Appendix D). Each item is a five point Likert scale ranging from 1= none of the time to 5= all of the time. This measure contains five subscales. The Emotional Support subscale refers to the expression of positive emotions, empathy and understanding (for example: "someone who understands you problems"). The Informational Support subscale refers to being offered advice, guidance, information or feedback (for example: "someone to give you good advice about a crisis"). The Tangible Support subscale refers to being offered of material help or behavioral support (for example: "someone to prepare your meals if you were unable to do it yourself"). The Positive Social Interaction subscale refers to having people with whom to have fun (for example: "someone to do something enjoyable with"). Finally, the Affectionate Support subscale refers to expressions of caring and love (for example: "someone who hugs you"). This scale is highly reliable with an internal consistency of above α=.91 on all its subscales. Test-retest reliability was also good with r=.72 or above for all subscales. Higher scores on this measure indicate more social support in one's life (Sherbourne & Stewart, 1991).

2. *The Lifespan Sibling Relationship Scale (LSRS)*. The Lifespan Sibling Relationship Scale is a 48 item self-report measure that assesses attitudes towards adult sibling relationships (Riggio, 2000; Appendix E). This scale has six subscales containing eight items each. The first

subscale Adult Affect measures current emotions towards a sibling; an example of an item in this subscale is “my sibling makes me happy”. The second subscale Adult Behavior measures current behavioral interactions with the sibling; an example of an item in this subscale is “my sibling and I do a lot of things together”. The third subscale Adult Cognition measures current beliefs about the sibling relationship; an example of an item in this subscale is “my sibling and I have a lot in common”. The fourth subscale is the Child Affect measuring past emotions towards a sibling, an example of an item in this subscale is “I enjoyed spending time with my sibling as a child”. The fifth subscale is the Child Behavior subscale which measures past behavioral interactions with a sibling; an example of an item on this subscale is “my sibling and I often played together as children”. Finally, the sixth subscale Child Cognitions Measures past beliefs about the sibling relationship; an example of an item on this subscale is “my sibling knew everything about me when we were children”. Each item consists of a five point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) with a midpoint 3 (neither agree nor disagree). This scale was validated on a sample of 711 university students. Internal consistency of this scale was high with Cronbach’s alpha ranging from α=.84 to α=.91. Test-retest reliability was also high for this scale with a correlation of r=.91 when the scale was taken one month later. Discriminant and convergent validity of the LSRS yielded strong evidence for the scale’s validity in assessing adult sibling relationships. Higher scores on this measure indicate better sibling relationship quality.

3. *Interparental Conflict Scale (ICS)*. The Interparental Conflict Scale is a 10 item self-report questionnaire that assesses perceived past and present parental conflict (Black & Pedro-Carroll, 1993; Appendix F). It has been validated on 288 university students among which 60 reported having divorced parents. Each item consists of a five point Likert-type scale. Seven

items in the questionnaire assess past perceived parental conflict (for example: “how often did your parents fight while you were growing up”) while the remaining three measure current perceived parental conflict (for example: “currently, how often do your parents fight?”). Measures of internal consistency ranged from Cronbach’s alpha= .82 to .93 indicating good to excellent internal consistency. Also, when compared to the Children’s Perception of Interparental Conflict Scale (Grych & Fincham, 1992), it yielded a good correlation of r=.77 (Black & Pedro-Carroll, 1993). Higher scores on this scale indicate higher levels of interparental conflict.

4. *Parentification Inventory (PI).* The Parentification Inventory (Hooper, 2009; Appendix G), is a 22 item scale that assesses parentification in adults. Participants are asked to respond to the questionnaire by recalling their relationship with their family as they were growing up. Each question is a five-point Likert-type scale that ranges from 1 (never true) to 5 (always true). Factor Analysis conducted on this questionnaire identified three main constructs consistent with the theory of Hooper et al. (2011) described previously. First, there is the parent-focused parentification subscale (12 items) which looks for adult-like roles and responsibilities that the child was responsible for toward their parents. An example of an item in this subscale is: “I often helped solve problems between my parents (or adult caregivers in my family)”. The second construct (7 items) is the sibling-focused subscale which targets all adult-like roles that the child was responsible for providing to his/her siblings. An example of an item in this subscale is: “I was expected to comfort my sibling when they were sad or having emotional difficulties”. Finally, the third construct (3 items) is the perceived benefits of parentification subscale and measures positive thoughts and feelings one has about fulfilling these roles and responsibilities. An example of an item in this subscale is: “I felt appreciated by my family”.

Reliability analysis using Cronbach's alpha showed that the scale was highly reliable with α=.84 (Hooper et al, 2011). Filling this questionnaire is estimated to take less than ten minutes. Higher scores obtained on the PI indicate higher levels of parentification and lower scores indicate lower levels of parentification (Hooper et al, 2011).

D. Research Design

The present study investigated the differences in sibling relationships among siblings whose parents are married and those whose parents are divorced. To do so, four scales previously validated in the literature were used. To check whether these measures were valid and reliable in our Lebanese sample, a principal components factor analysis was run following which reliability was analyzed. As for the main analysis, it was divided into two parts. The first part was aimed at checking between group differences in sibling relationships on one hand and parentification on the other.

CHAPTER VI

RESULTS

A. Preliminary Analyses

Preliminary analyses which include missing value analysis, normality testing and exploration of univariate and multivariate outliers were conducted prior to examining the psychometric properties of the scales used in the study.

1. *Missing Value Analysis*. Missing Value Analysis showed that 2 items had more than 5% of the data missing and those were the age of the participants (9.4%) and item 9 for the Parentification Inventory (6.9%). Little's MCAR test was significant at $p<.05$ indicating that the

data were not missing at random. The data was examined and it showed 28 cases with missing values. Since these cases belonged to the group of participants whose parents are married and considering that the number of participants in that group was much larger than the participants in the divorced group, those cases could be deleted without affecting our results. After deletion of these cases, Missing Value Analysis was run again and showed no more missing data above 5%.

2. *Normality*. The normality of the scales used in the study was inspected through z-scores of skewness which are obtained through the following equation: z-skewness = skewness/standard error of skewness. For the assumption of normality to be met z-skewness must be inferior to |3.29|. This was the case for two of the scales used: the Interparental Conflict Scale (ICS) and the Parentification Inventory (PI). The assumption of normality, however, was violated for the MOS Social Support Scale and the Lifespan Sibling Relationship Scale with z-skewness=-4.95 and z-skewness= -3.80 respectively indicating that the data on both scale were negatively skewed. Since the assumption of normality is important to the analyses that will be conducted later, the data on both of these variables were transformed. Since they were negatively skewed, they were first reverse scored by subtracting each score on each of these variables from the highest score (5) and then adding 1. After reverse scoring, log transformation was conducted for both variables. Z-scores of skewness were again calculated and the transformed scores were z-skewness(MOS)=0.35 and z-skewness(LSRS)=-.65 indicating that the data on both these transformed variables was now normal. These transformed scores will then be considered for the main analyses.

3. *Univariate and multivariate outliers*. Ten univariate outliers on 5 variables were found through the inspection of Z-scores. The MOS Social Support Scale had one univariate outlier at case number 112. That same case number turned up as a univariate outlier on the Lifespan

Sibling Relationship Scale. Age has 5 univariate outliers on case numbers 21, 86, 136, 163 and 171. Sibling age had a univariate outlier on case 163 and finally, sibling number had univariate outliers on cases 88 and 21. At this stage, these cases were kept and multivariate outliers were explored through Mahalanobis distances and turned up 3 multivariate outliers at case numbers 60, 88 and 163. Since case numbers 88 and 163 were both univariate and multivariate outliers, they were deleted in order not influence further data analysis. Case number 60 was retained in the data.

B. Psychometrics

The factor structure of the scales used was examined through factor analysis and reliability was calculated for each of the scales.

1. *Statistical assumptions*. According to Tabachnick and Fidell's criterion, it is advisable to have a sample size of at least 300 to run a factor analysis (Tabachnick & Fidell, 2007, p.163). Due to the sensitivity of the topic, it was not possible to attain that number. The factor analysis will be run nonetheless and will include all 161 participants. Bartlett's test of sphericity was significant for the MOS social support scale ($X^2(171)=1774.04$, $p<.05$), the Lifespan Sibling Relationship Scale ($X^2(990)=5231.04$, $p<.05$), the Parentification Inventory ($X^2(231)=1547.99$, $p<.05$) and the Interparental Conflict Scale ($X^2(45)=960.20$, $p<.05$). The Kaiser-Meyer-Olkin values of the MOS, LSRS, PI and ICS were all above .7 (KMO= .93, KMO= .88, KMO= .85 and KMO= .79 respectively) indicating that the data are factorable. The determinant was above the recommended .00001 for the PI and the ICS indicating there is no multicollinearity or singularity problems. For the MOS and the LSRS, on the other hand, the determinant was below the recommended .00001 but since there were no correlations above .8 in the correlation matrix, the

assumptions of multicollinearity and singularity were considered met and factor analysis could be done. Measures of sampling adequacy (MSA) found on the anti-image correlation matrices were all above .5 so none of the variables were excluded from the analysis.

2. *MOS Social Support Scale*. A principal components factor analysis with varimax rotation was conducted on the 19 item scale measuring levels of social support. Three factors emerged from the analysis as opposed to four in the original study. Based on the items present in each factor and drawing from the original paper the factors were titled *informational support* (9 items), *tangible and emotional support* (6 items) and *positive social interaction* (4). A total of 65.30% of the variance was explained by these two factors. There was one item that double loaded on factors 1 and 2, due to higher loading on factor 1, it was retained there. Also, two items double loaded on factors 1 and 3, one had higher loading on factor 1 and was retained there, whereas the second one loaded more on factor 3 and was retained on that factor. Finally, one item double loaded on factors 2 and 3 but was retained on factor 3 due to higher loading there. The reliability of the factors that emerged was very strong (*informational support,* Chronbach's α=.94; *tangible and emotional support,* Chronbach's α=.83 and *positive social interaction,* Chronbach's α=.80). The scale as a whole also had very strong reliability with *MOS,* Chronbach's α=.94 (Table 1).

3. *The Lifespan Sibling Relationship Scale (LSRS).* A principal components factor analysis with varimax rotation was conducted on the 45 item scale measuring past and present sibling relationship. Before doing so, 8 items were reverse coded as per the authors' instructions. Six factors emerged from that scale consistent with the original study but the items clustered differently. Two main factors emerged and were given the titles *present sibling relationship quality* (18 items) and *past sibling relationship quality* (14 items). The third factor that emerged

was titled *positive attitudes toward the sibling* (3 items), the fourth one was titled *sharing behavior between siblings* (5 items), the fifth factor was named *negative attitudes towards the sibling* (3 items) and finally, the sixth factor had items 14 "my sibling and I borrow things from each other" and 24 "my sibling is proud of me" these items clustered together even though they seemingly have no relationship to one another. A total of 70.85% of the variance can be explained by these 6 factors together. Six items double loaded on the first factor *present sibling relationship quality* and the third factor *positive attitudes toward the sibling.* The loading was higher on the first factor for 5 items so they were retained there and one was retained on the third factor because of higher loading. Four items double loaded on factor two *past sibling relationship quality* and factor four *sharing behavior between the siblings,* one was kept on factor 2 due to higher loading there whereas the remaining three items were retained as part of factor 4 because of higher loadings there. Finally, one item double loaded on factor 6 and factor 1 *present sibling relationship quality* but due to higher loading on factor 6, this item was kept as part of that factor. Reliability analysis showed that the first 4 factors were highly reliable whereas the remaining two had medium reliability (*present sibling relationship quality*, Chronbach's α=.95; *past sibling relationship quality*, Chronbach's α=.96; *positive attitude toward sibling,* Chronbach's α=.80; *sharing behavior between siblings,* Chronbach's α=.84; *negative attitudes toward sibling,* Chronbach's α=.67; *factor 6,* Chronbach's α=.52). The whole scale had very strong reliability with *LSRS,* Chronbach's α=.96 (Table 1).

4. *Interparental Conflict Scale (ICS).* A principal components factor analysis with varimax rotation was conducted on the 10 item scale measuring past and present levels of conflict between parents. The results of this analysis turned up two factors which are the same ones that emerged in the original sample presented by the authors of this scale. The first factor

past interparental conflict had the same 7 items as in the original study with no double loadings. The 3 remaining items made up factor two *present interparental conflict* and this factor had no double loadings either. These two factors explained 68.44% of the variance. Item 7 loaded negatively so it was reverse coded for the purposes of reliability analyses. The reliability of these subscales was very strong (*past interparental conflict,* Chronbach's α=.90 and *present interparental conflict*, Chronbach's α=.83). The overall reliability of the scale was also high with *ICS,* Chronbach's α=.86 (Table 1).

5. *Parentification Inventory (PI).* A principal components factor analysis with varimax rotation was conducted on the 22 item scale measuring levels of parentification. Five factors emerged from this analysis. The 3 factors that emerged in the literature also emerged here with the first factor titled *parent-focused parentification* the second *sibling-focused parentification* and the third *perceived benefits of parentification.* This third factor had the exact same items in our sample as it did in the original sample on which the scale was validated. However, some items that appeared on the first and second factors in the original sample made up two new factors in our sample and those are *participating in chores* and *having time for oneself*. These five factors explain 63.58% of the variance. There were three items that double loaded on factors one and two and the highest loading was retained, one was kept on factor one whereas two were retained on factor two. It is noteworthy that one item loaded negatively so it was reverse coded for the purposes of the reliability analysis. As for reliability analysis, the original subscales had high reliability (*parent-focused parentification,* Chronbach's α=.86; *sibling-focused parentification,* Chronbach's α=.80 and *perceived benefits of parentification,* Chronbach's α=.81) whereas the two that emerged from our data showed acceptable reliabilities (*participating*

in chores, Chronbach's α=.74 and *time for oneself*, Chronbach's α=.67). The overall reliability of the scale was strong with *PI,* Chronbach's α=.87 (Table 1).

Table 1

Reliability of the Scales

Name of the Scale	Cronbach's α
Medical Outcomes Study Social Support Scale	.94
Lifespan Sibling Relationship Questionnaire	.96
Interparental Conflict Scale	.86
Parentification Inventory	.87

C. Frequencies and Descriptives

There were a total of 161 participants in our study, 79 of which were females, 80 were male and 2 did not specify gender. One hundred and twelve participants indicated that their parents were married and 49 had divorced parents. Twenty five of those indicated that they live with their mother while 21 live with their father and 3 did not specify whom they live with. Seventy one of the participants indicated being the oldest in their family, 27 indicated being the middle child and 63 indicated being the youngest.

The average age of the participants in our sample was almost 20 (M=19.70, SD=2.03) with an average age difference between them and the sibling they filled out the survey about of around 3 years (M=3.09, SD=2.18), they also reported having on average 2 siblings (M=1.99, SD=1.69) and those whose parents were divorced reported on average being 11 years old at the time of the divorce (M=10.92, SD=4.88).

Table 2

Demographic Information of Participants

Demographics	Category	N	%
Gender	Female	79	49.1
	Male	80	49.7
	Missing	2	1.2
Marital Status	Married	112	69.6
	Divorced	49	30.4
Birth Order	Oldest	71	44.1
	Middle	27	16.8
	Youngest	63	39.1
Live With	Mother	25	15.5
	Father	21	13.0
	Both	112	69.6
	Unspecified	3	1.9

As for the scales, the aggregate means showed that participants on average were above the midpoint for the MOS social support scale (MOS) and the Lifespan Sibling Relationship Scale (LSRS) indicating that on average, the participants had good social support and good relationships with their siblings (M=3.98, SD=.76; M=3.63, D=.65 respectively). As for the other two scales, the aggregate means were around the midpoint for the Interparental Conflict Scale (ICS) and the Parentification Inventory (PI) (M=2.99, SD=.77; M=2.90, SD=.63 respectively) indicating that the participants reported average levels of interparental conflict and parentification.

Table 3

Scale Descriptives

	Mean	Std. Deviation
Age	19.70	2.03
Age spacing	3.09	2.18
Sibling number	1.99	1.69
Age at the time of divorce	10.92	4.88
Social support	3.98	0.76
Perceived parental conflict	2.99	0.77
Parentification	2.90	0.63
Sibling relationship	3.63	0.65

When the data was split by marital status of the parents to check the aggregate means across groups, the following results were obtained. For the married group the MOS and LSRS scores were still above the midpoint indicating good levels of social support and good sibling relationships (M=3.97, SD=74; M=3.69, SD=.66 respectively). The scores for the ICS and the PI are considered to be clustering around the midpoint indicating average levels of parental conflict and parentification (M=2.90, SD=.76; M=2.99, SD=.63 respectively).

As for the divorced group the MOS, ICS and LSRS were all above the midpoint (M=4, SD=.80; M=3.22, SD=.75 and M=3.53, SD=.62 respectively) again indicating good social support and sibling relationships but also above average interparental conflict. As for the PI, the aggregate mean was below the midpoint (M=2.73, SD=.61) showing low levels of parentification. Interestingly, parentification scores were higher in the group of participants whose parents were married.

Table 4

Scale Descriptives by Group

Marital status of the parents		Mean	Std. Deviation
Married	Social support	3.97	.74
	Perceived parental conflict	2.90	.76
	Parentification	2.99	.63
	Sibling relationship	3.69	.66
Divorced	Social support	4.00	.80
	Perceived parental conflict	3.22	.75
	Parentification	2.73	.61
	Sibling relationship	3.53	.62

D. Main Analysis I: Analysis of Covariance (ANCOVA)

1. *Statistical assumptions for ANCOVA 1*. An important assumption of ANCOVA is that the data on the dependent variable and the covariate be interval data. In this case the assumption is met with the dependent variable *sibling relationship* being a scale from 1 to 5, the covariates *gender* being a bivariate variable and *age spacing* being an open ended scale. Another important assumption is that of independence of observations meaning that each participant independently completed the survey without any interference. There is no statistical way to test for this assumption and since the survey was done online and not in front of the researcher we cannot be sure that this assumption is met. One other assumption is that the data of the dependent variable

sibling relationship across the independent variable *marital status of parents* should be normally distributed. As previously mentioned, the data on the dependent variable were transformed because they initially violated the assumption of normality so the transformed scores will be considered here. The z-scores of skewness revealed that the data of the dependent variable across the independent variable were normal with z-skewness of the the *sibling relationship* in the *married* group being z-skweness=-.20 and in the *divorced* group being z-skewness=-.79, since both values are below the |3.29| cutoff the data are considered normal and the assumption is met. As for the assumption of homogeneity of variance, a Levene's test was run on the dependent variable and revealed that the assumption was met with $F(1,159)=.05$, $p>.05$, ns. One final important assumption is that the relationship between the dependent variable and the covariates is the same in each of our groups. To test this assumption we ran an ANCOVA using the customized option where we assessed the interaction effects of the independent variable and the covariates. The result of this test showed that the assumption was met with $F(1, 157)=1.45$, $p>.05$, ns for the interaction of marital status of the parents and age spacing as for the interaction between marital status of the parents and gender, the assumption was also met with $F(1, 157)=.87$, $p>.05$, ns. Since all the assumptions were met, the analysis of covariance could be run and the result will be described in the section below.

2. *ANCOVA 1*. An analysis of covariance ANCOVA was run to examine the differences in sibling relationship quality between siblings whose parents are divorced and those whose parents are married while controlling for the effects of gender of the participant and age spacing between the siblings.

The main effects of the covariates gender and age spacing were not significant ($t(157)=1.97$, $p>.05$, ns and $t(157)=1.28$, $p>.05$, ns respectively). After controlling for the

covariates, the independent variable marital status of the parents was also not significant with F(1,157)=2.41, p>.05, ns. These results show that there is no difference in sibling relationship quality between siblings whose parents are married and those whose parents are divorced.

3. *Statistical assumptions for ANCOVA 2*. The data on the dependent variable *parentification* and on the covariates *gender* and *age spacing* are interval data so the first assumption for running an ANCOVA was met. As for the independence of observations assumption, as mentioned above, it cannot be guaranteed as the researcher did not observe participants while they were filling out the surveys so we cannot be sure that they all participated independently from each other. The assumption of normality of the dependent variable across the levels of the independent variable was calculated through the z-scores of skewness and the results showed that the assumption was met and the data were normal for the dependent variable across both groups. In fact, z-skewness for the *sibling relationship* in the *married* group was z-skewness= .85 and the one for the *divorced* group was z-skewness=.64 which are both well below the cutoff of |3.29| indicating that the assumption of normality is met. The assumption of homogeneity of variance was explored through a Levene's test and was also met with F(1,157)=.00, p>.05, ns. Finally, the assumption of homogeneity of regression slopes was also met showing no interaction between marital status of the parents and age spacing (F(1,157)=1.58, p>.05, ns) and between marital status of the parents and gender (F(1,157)=.17, p>.05, ns). With all of the assumptions met, the ANCOVA could be run and its results are displayed in the section below.

4. *ANCOVA 2*. An analysis of covariance ANCOVA was run to examine the differences in parentification between siblings whose parents are divorced and those whose parents are

married while controlling for the effects of gender of the participant and age spacing between the siblings.

The main effects of the covariates were not significant showing that gender and age spacing have no effect on parentification ($t(157)=.10$, $p>.05$, ns and $t(157)=.57$, $p>.05$, ns respectively). However, when controlling for these variables, the main effect of marital status of the parents was significant with $F(1,157)=4.64$, $p<.05$, indicating that there was a difference in parentification between participants whose parents are married and those whose parents are divorced. Interestingly, when looking at the means of parentification across groups the parentification score of participants whose parents are married ($M=2.99$, $SD=.63$) was higher than the score of parentification for participants whose parents are divorced ($M=2.73$, $SD=.61$).

5. *Statistical assumptions for ANCOVA 3.* The data on the dependent variable *parentification* and on the covariates *gender* and *age spacing* are interval data so the first assumption for running an ANCOVA was met. As for the independence of observations assumption, as mentioned above, it cannot be guaranteed as the researcher did not observe participants while they were filling out the surveys so we cannot be sure that they all participated independently from each other. The assumption of normality of the dependent variable across the levels of the independent variable was calculated through the z-scores of skewness and the results showed that the assumption was met for the dependent variable across two of the three groups with z-skewness(*oldest*)=-1.13, z-skewness(*middle*)=.42 and z-skewness(*youngest*)=4.35. The data on the parentification variable was normal for participants who ranked as oldest and middle children in their families as the z-scores of skewness are below the cutoff point. On the other hand, the data on the parentification variable was non-normal for participants who ranked as the youngest in their family. The analysis was, however, conducted as this is a minor violation

and the ANCOVA is considered a robust test that can weather such violations. The assumption of homogeneity of variance explored through the Levene's test was met with $F(1, 154)=.81$, $p>.05$, ns. Finally, the assumption of homogeneity of regression slopes was also met showing no interaction between birth order and age spacing ($F(1,157)=.63$, $p>.05$, ns) and between birth order and gender ($F(1,157)=.11$, $p>.05$, ns).

6. *ANCOVA 3*. A third analysis of covariance ANCOVA was run to examine the differences in parentification across birth order while controlling for the effects of gender of the participant and age spacing between the siblings.

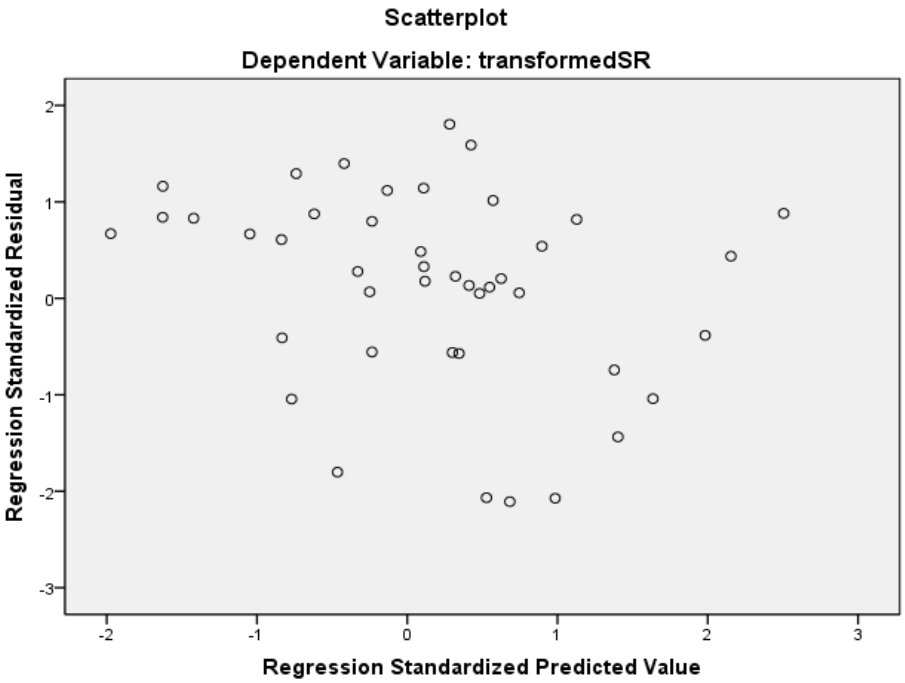
The main effects of the covariates gender and age spacing were not significant with $t(157)=.78$, $p>.05$, ns for gender and $t(157)=.27$, $p>.05$, ns for age spacing indicating that these two variables have no effect on parentification. When controlling for these variables, however, birth order had a significant effect on parentification with $F(2,157)=18.63$, $p<.05$ meaning that parentification differs across birth order. In order to understand this difference a simple contrast was run and the results showed that there is no significant difference in parentification between participants who indicated that they were the oldest in their family ($M=3.19$, $SD=.49$) and those who were middle children ($M=2.96$, $SD=.61$), $t(157)=.60$, $p>.05$, ns. The difference was, however, significant between first born children ($M=3.19$, $SD=.49$) and last born children ($M=2.57$, $SD=.63$) $t(157)=.73$, $p<.05$. There was also a significant difference between middle children and last born children $t(157)=1.34$, $p<.05$. These results show that youngest children were parentified by their oldest and middle siblings.

E. Main analysis II: Hierarchical Multiple Regression

1. *Statistical assumptions*. The assumption of ratio of cases to the IVs was met as we have 161 participants in the study when according to the rule of thumb a minimum of 111 participants were needed to run a multiple regression on our variables (Tabachnick & Fidell, 2007). As mentioned in previous sections, the data on the dependent variable *sibling relationship quality* was normal after a transformation was conducted to correct previously non-normal data therefore the assumption of normality was met. The assumption of homoscedasticity was also met as evident by the scatterplot which shows a random array of dots which are not making any particular shape or moving in any particular direction confirming homoscedasticity.

Figure 1

Homoscedasticity Scatterplot



An important assumption of multiple regression is that errors of prediction are independent of one another. This assumption is tested for using the Durbin-Watson statistic which varies usually between 0 and 4. A good value for this statistic is 2, however values between 1 and 3 are considered acceptable. In our sample, the Durbin-Watson statistic had a value of 2.04 so the assumption of independence of errors was met. Another statistical assumption for running a multiple regression is that there be no multicollinearity between the predictor variables. While scanning the correlations matrix it is clear that no two predictors correlate highly with one another (>.8). But to be sure, it is better to check for both tolerance and its reciprocal variance inflation factor (VIF). Tolerance values varied between .79 and .99 which is well above the minimum recommended .2. Also VIF values varied between 1.01 and 1.27 which are below the maximum acceptable value of 10 and they all cluster around one. These results show that there is no multicollinearity among our predictors confirming that assumption is met and a multiple regression can be run.

2. *Correlations.* Looking at our zero order correlation matrix three variables significantly correlated with our dependent variable *sibling relationship quality*. The largest correlation was between *sibling relationship quality* and *social support* with a Pearson correlation of r=.46. This is a positive correlation with a medium to large effect size indicating that as social support increases, so does sibling relationship quality. *Parentification* also significantly correlated with *sibling relationship quality* with a Pearson correlation of r=-.22 which is a negative correlation with a small to medium effect size indicating that as parentification increases, sibling relationship quality decreases. Finally, *interparental conflict* also correlated with *sibling relationship quality* with a Pearson correlation of r=.17 which is a positive correlation of small

effect size indicating that as interparental conflict increases, sibling relationship quality increases as well (Table 5).

Table 5

Correlations Matrix

		Age at divorce	Parental conflict	Parentifica-tion	Sibling relationship	Social support
Parental conflict	Pearson Correlation	.11				
	Sig. (2-tailed)	.47				
	N	45				
Parentification	Pearson Correlation	.13	.15			
	Sig. (2-tailed)	.40	.07			
	N	45	161			
Sibling relationship	Pearson Correlation	-.20	.17*	-.22**		
	Sig. (2-tailed)	.20	.03	.01		
	N	45	161	161		
Social Support	Pearson Correlation	.00	.10	-.09	.46**	
	Sig. (2-tailed)	.99	.2	.26	.00	
	N	45	161	161	161	
Age spacing	Pearson Correlation	-.03	.02	-.05	.09	.08
	Sig. (2-tailed)	.83	.79	.56	.25	.31
	N	43	158	158	158	158

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

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

3. *Multiple regression*. The aim of the regression analysis was to test for the predictive effects of marital status of the parents, social support, interparental conflict, parentification and age at the time of divorce on sibling relationship quality while controlling for gender, birth order and age spacing. Therefore a two step hierarchical regression was run with the controlling variables (gender, birth order and age spacing) entered into the first block and the predictor variables (marital status of the parents, social support, interparental conflict, parentification and age at the time of divorce) entered into the second block.

The first model which included the controlling variable had no significant effect on the dependent variable with R^2=.03, F(3,153)=1.54, p>.05, ns. However, when the second block of variables was entered with our predictor variables, the effect was significant with R^2=.28, F(4,149)=12.88, p<.05. This indicates that the variables explain 28% of the variance in the dependent variable. Adjusted R^2=.26 indicates a shrinkage of 2% when moving from our sample to the population. This small shrinkage percentage indicates that our model generalizes well to the population (Table 6).

While age spacing, gender, birth order, marital status of the parents and age at the time of divorce were not predictors of sibling relationship quality, the remainder of the variables had significant predictive relationships with the dependent variable. The largest predictor of sibling relationship quality was social support with β=.31, p<.001 indicating a positive relationship between these variables with a medium effect size. This means that is is more likely for participants who have good social support to report having better relationships with their siblings than those who do not have social support. Social support scores were higher in the divorced group than in the married group as show by the means (M=4, SD= .80; M=3.97, SD=.74 respectively). Parentification also had a significant predictive effect on sibling relationship

quality with β=-.04, p<.05. This relationship was a negative one indicating that higher parentification predicted lower sibling relationship quality with a small effect size. In our sample, parentification scores were higher in the divorced group (M=2.73, SD= .61) than in the married group (M=2.99, SD=.63). Finally, interparental conflict also significantly predicted sibling relationship quality with β=.02, p<.05. This positive relationship indicates that having more conflict between parents predicted better sibling relationships in our sample with a small effect size (Table 7). The means show that interparental conflict was rate higher in the divorced group (M=3.22, SD=.75) than in the married group (M=2.90, SD=.76). An analysis of variance (ANOVA) was run to determine whether this difference was a significant one and the results showed that participants in the divorced group reported significantly higher levels of parental conflict than participants in the married group with F(1,160)=6.08, p<.05.

Table 6
R, R^2, adjusted R^2, and R^2 change of the Regression Equation

Model Summary					
Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	R Square Change
1	.17	.03	.01	.12	.03
2	.53	.28	.25	.10	.25

Table 7
Regression Parameters

Model		B	Std. Error	Beta	t
	Age spacing	.00	.00	.054	.77
	Gender	.02	.02	.073	.99
	Birth order	-.00	.01	-.025	-.31
	Social support	.31	.06	.405	5.53*
	Parental conflict	.02	.01	.149	2.03*
	Parentification	-.04	.02	-.205	-2.48*
	Marital status	.01	.01	.075	1.02

CHAPTER VII

DISCUSSION

A. Overview of the Results

The results showed that there was no difference in the quality of the sibling relationship as reported by participants whose parents were divorced and those whose parents were married. In fact, when looking at the aggregate means for the LSRS, it is noteworthy that participants from the divorced and married groups reported having good relationships with their siblings as the scores on the LSRS were above the midpoint disconfirming hypothesis 1. This finding is inconsistent with most of the literature on this topic (Sheehan et al., 2004; Tucker et al., 2001 and Milevsky, 2004). In these studies, the researchers found a significant difference in sibling relationship such that siblings with divorced parents had more hostility towards each other (Sheehan et al., 2004) sought and received less support from each other (Tucker et al., 2001 and Milevsky, 2004) and rated their relationship as less close and lacked communication (Milevsky, 2004). On the other hand, our finding was consistent with Frank (2007) who also found no differences in sibling relationships between siblings whose parents are divorced and those whose parents are married. However, Frank (2007) asked his participants to rate their relationship with the sibling they are closest to which may explain why participants rated their relationship with their sibling positively. In the present study, the participants were told to rate their relationship with their siblings closest to them in age. This distinction makes our results more comparable to those of Sheehan et al., (2004) and Tucker et al., (2001).

The second hypothesis was disconfirmed as our results showed that participants whose parents were married had higher parentification scores than those whose parents were divorced. This is inconsistent with most findings, which showed that parentification was more common when the family system is disrupted by an event such as divorce (Minuchin, 1974; Peris et al., 2008; Jurkovic et al., 2001). These results could be explained from a cultural perspective whereby parentification may be a phenomenon that occurs in intact families whereby the youngest child is usually looked after by older siblings especially in families with more than two children. Usually older children are asked to babysit their younger siblings and help them with homework among other things. Yet, when the system is broken by divorce, it could be argued that the parents relieve their children of this duty to make the transition easier and the custodial parent fulfills the parental role completely to compensate for the stress or relieve the guilt associated with divorce in Lebanon (F. Al-Jamil, personal communication, June 3, 2014). Unfortunately, there is no literature on the topic in the Arab region so our claims cannot be verified until further research on family systems and parentification is conducted.

Hypothesis 3 predicting that high social support will predict better sibling relationship quality while controlling for gender, birth order and age spacing was confirmed. This finding is in line with previous research which shows that social support during and after divorce helps buffer its negative effects on the child's adjustment (Amato, 2000; Hetherington, 2003 and Peng et al., 2012). Our finding adds to the literature by being the first to examine how social support affects the sibling relationship after divorce. It is also noteworthy that levels of social support in our sample were high. This is to be

expected since our study was conducted in a relational society where extended family members may be living in close proximity to one another and/or available to offer assistance, which creates a higher opportunity for social support.

While the literature shows that higher levels of parental conflict leads to higher levels of sibling conflicts and poorer sibling relationships (Poortman & Voorpostel, 2009; Yu & Gamble, 2008; Reese-Weber, 2000 and Milevsky, 2004), the results of our study pointed in the opposite direction hence refuting our fourth hypothesis. Our regression analysis determined that parental conflict was, in fact, a predictor of sibling relationship quality but the prediction was a positive one indicating that while parental conflict increases so does sibling relationship quality. In our sample, parental conflict was significantly higher in the divorced group indicating that the participants in that group witnessed more parental conflict. Since it was shown that higher levels of conflict predict a better sibling relationship in our study, this can partly account for the good sibling relationship scores that were found in the divorced group. It can be argued that siblings whose parents often fight stand together and support each other. This is in contradiction of what was reported in studies conducted in Europe and North America (Milevsky, 2004;Yu & Gamble, 2008).

Our fifth hypothesis was confirmed adding to the scarcity of the research on the topic. The literature has shown that parentification has adverse effects on the adjustment of the parentified child (Peris et al., 2008; Williams & Francis, 2010). Our findings add to that literature in providing evidence that parentification affects the sibling relationship too such that the more parentified a child was the more likely it was that he/she would have

worse sibling relationships than a child who is not parentified. This can be explained by the burden that parentification may put on a person because of the responsibilities that this role entails. Parentified children are given the role of parents and are expected to provide emotional and or instrumental support to their siblings and or their parents (Minuchin, 1974). Parentification affects the sibling relationship because the parentified child might view their sibling as a burden and the sibling might view the parentified child as the favored child in the family and might feel jealousy and resentment toward them. It is interesting that parentification scores were higher in participants whose parents were married indicating that this process might be a natural one in our families.

Another interesting finding in our study is that marital status of the parents, age spacing, gender, birth order, and age at the time of divorce were not predictors of sibling relationship quality. Age spacing, gender and birth order were included in our study as control variables because there was inconsistency in the literature on the effects of these variables on the sibling relationship (Volkom, Mackiz & Reich, 2011; Pollet & Nettle, 2009). Age at the time of divorce was not a significant predictor of the sibling relationship in our study consistent with findings from Milevsky (2004) while contradicting findings from Riggio (2001). Our finding, is to be expected since divorce in itself was not a predictor of the sibling relationship in our sample as it was in these two studies (Milevsky, 2004; Riggio, 2001). This finding shows that sibling relationships in our sample were strong regardless of the parents' marital status. This finding contradicts the scarce literature available on the topic which found that divorce negatively affects the sibling relationship (Sheehan et al., 2004; Tucker et al., 2001 and Milevsky, 2004). This result could be

explained by the high levels of social support and parental conflict and lower levels of parentification reported by our participants in the divorced group. Since high social support and high parental conflict were both predictors of a better sibling relationship and high parentification predicted a worse sibling relationship, it could be argued that these phenomena contributed to there not being a difference in sibling relationship quality between groups.

B. Limitations and Future Research

The present study revealed new and interesting findings that were not all consistent with the American and European literature. Despite that, some limitations need to be addressed. The first limitation concerns the unequal group sizes as we had much less participants in the divorced group than in the married group. This could be explained by the sensitivity of the topic of divorce, its lower prevalence rate in our society and the stigma that still surrounds it in our culture. Also, as mentioned earlier, divorce is still very difficult to impossible for some Christian sects in Lebanon so it is possible to have cases of separation without divorce which could not be included because of our exclusion criteria. In future research, if separation is to be included, a specific time since separation may need to be indicated to make sure that these parents are separated because they cannot divorce instead of it being a trial separation with hopes or reconciliation. Also, knowing if the parents still live in the same house is also important in case of separation because such cases do exist where parents decide to separate but still live under the same roof to avoid stigmatization.

Another limitation concerns the nature of the sample in that it is not representative of Lebanon or the Lebanese culture as all participants were AUB students and the AUB community represents in majority a fraction of the Lebanese society mainly middle to upper class Beirut citizens. Of course there are students from other socio economic classes and other regions of Lebanon but in lesser percentages. For future research, it is advisable to have a community sample from all regions in Lebanon to have a more comprehensive cultural perspective. Data collection can be completed by approaching people in malls, cafes or universities across different Lebanese regions. Because we initially collected data from participants registered in the PSYC 201 course and then expanded the sample to the general AUB population, some participants received an incentive for participation while the rest did not. In future, it is advisable to either provide the same incentive to all participants or not to provide incentive at all.

Finally, a limitation was encountered with regards to the data collection method. Whereas using LimeSurvey had its advantages in making the link accessible from anywhere and protecting anonymity of the participants, one major limitation it has is the difficulty of counterbalancing the questionnaires. Since we were not able to counterbalance them, there is a chance that we have an order effect which could have biased our data. It is recommended for future research to find a solution for this problem by either having the data collected manually or by creating different links for the study on LimeSurvey with each having a particular order and having different participants access different links. This was not possible due to time constraints.

An interesting variable to explore in future research would be resilience as it may provide further evidence to explain why our participants reported having strong sibling relationships after divorce. In fact, the literature on resilience has found that resilient children are immune to the adverse effects of divorce. In a study conducted by Kelly (2003) it was demonstrated that even though divorce was related to feelings of sadness and worry in children, there was no definite relationship between divorce and child maladjustment. It was reported that children of divorce scored within normal or above average ranges on objective measures of adjustment. Consistent with this finding, other studies argue that some children of divorce who are generally more resilient do escape the maladaptive outcomes of divorce (Velez, 2011; Lansford, 2009; Lambert, 2007).

It would also be interesting for future research to examine parentification in more detail. The literature shows that there are different types of parentification including instrumental, emotional, parent-focused and sibling-focused parentification (Boszormenyi-Nagy and Spark, 1984; Hooper et al., 2011). It would be informative to explore the prevalence of various types of parentification and the differential effects on the sibling relationship.

C. Implications and Recommendations

The most significant finding in the present study was the effect that social support had on the sibling relationship. More social support predicted better sibling relationship quality. This finding stresses the importance social support has not only on the wellbeing of an individual as is shown in the literature but also on sibling relationship quality, and

this may have buffered the effects of divorce on sibling relationships. Interestingly social support scores were high in our sample and this is consistent with the nature of our culture. The clinical implication of this finding could be to stress the importance social support has on protecting and improving the sibling relationship by encouraging patients to find sources of social support especially when undergoing stressful life events such as divorce. Another interesting finding was that higher parentification predicted worse sibling relationship quality. As was mentioned above, parentification may be a natural phenomenon in Lebanese families as older children are given the responsibility of caring for their youngest siblings as found in our study. This phenomenon does however, have adverse effects on the sibling relationship. Therefore, parents need to be more aware of this phenomenon to relieve their older children from having the burden to care for their youngest siblings.

REFERENCES

Ackerman, R., Kashy, D., Donnelan, B., & Conger, R. (2011). Positive-engagement behaviors in observed family interactions: A social relations perspective. *Journal of Family Psychology, 25:5,* 719-730. doi: 10.1037/a0025288

Amato, P. R. (2000). The consequences of divorce for adults and children. *Journal of Marriage and the Family, 62,* 1173–1191. doi: 10.1111/j.1741-3737.2000.01269.x

Amato, P., Loomis, L., & Booth, A. (1995). Parental divorce, marital conflict, and offspring well-being during early adulthood. *Social Forces, 73*(3), 895-915.

Angarne-Lindberg, T., & Wadsby, M. (2010). Psychiatric and somatic health in relation to experience of parental divorce in childhood. *International Journal of Social Psychiatry, 58(16),* 16-25. doi: 10.1177/0020764010382372

Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs: Prentice Hall.

Black, A.E., & Pedro-Carrol, J.L (1993). Role of parent-child relationships in mediating the effects of marital disruption. *Journal of the American Academy of Child and Adolescent Psychiatry, 32:5,* 1019-1027. doi: 10.1097/00004583-199309000-00021

Boszormenyi-Nagy, I., & Spark, G. M. (1984). *Invisible loyalties: Reciprocity in intergenerational family therapy.* London: Taylor & Francis.

Bouchard, C. & Drapeau, S. (1991). The psychological adjustment of children from separated families: The role of selected social support variables. *Journal of*

Primary Prevention, 11(4), 259-276. Retrieved from http://link.springer.com.ezproxy.aub.edu.lb/content/pdf/10.1007%2FBF01325164

Branje, S., van Lieshout, C., van Aken, M., & Haselager, G. (2004). Perceived support in sibling relationships and adolescent adjustment. *Journal of Child Psychology and Psychiatry, 45*(8), 1385-1396. doi: 10.1111/j.1469-7610.2004.00332.x

Burnett, G., Jones, R., Bliwise, N., & Ross, L. (2006). Family unpredictability, parental alcoholism, and the development of parentification. *The Journal of Family Psychology, 34,* 181-189. doi: 10.1080/01926180600550437

Divorce Statistics (2012). Divorce Statistics and Divorce Rate in the USA. Retrieved from http://www.divorcestatistics.info/divorce-statistics-and-divorce-rate-in-the-usa.html

Dong, Q., Wang, Y., Ollendick, T. (2010). Consequences of divorce on the adjustment of children in China. *Journal of Clinical Child and Adolescent Psychology, 31:1,* 101-110. doi:10.1207/S15374424JCCP3101_12

Faber, A. & Wittenborn, A. (2010). The Role of Attachment in Children's Adjustment to Divorce and Remarriage. *Journal of Family Psychotherapy, 21:2,* 89-104. doi:10.1080/08975353.2010.483625

Faircloth, B. F., & Cummings, E. M. (2008). Evaluating a parent education program for preventing the negative effects of marital conflict. *Journal of Applied Developmental Psychology, 29,* 141-156.

Frank, H. (2007). Young adults' relationship with parents and siblings: The role of marital status, conflict and post-divorce predictors. *Journal of Divorce and Remarriage, 46*(3), pp. 105-124. doi: 10.1300/J087v46n03_07

Gamble, W., Yu, J., & Kuehn, E. (2011). Adolescent sibling relationship quality and adjustment: Sibling trustworthiness and modeling, as factors directly and indirectly influencing these associations. *Social Development, 20:3,* 605-623. doi: 10.1111/j.1467-9507.2010.00591.x

Gass, K., Jenkins, J., & Dunn, J. (2007). Are sibling relationships protective? A longitudinal study. *Journal of Child Psychology and Psychiatry, 48(2),* 167-175. doi:10.1111/j.1469-7610.2006.01699.x

Gerard, J. M., Krishnakumar, A. & Buehler, C. (2006). Marital conflict, parent-child relations, and youth maladjustment: A longitudinal investigation of spillover effects. *Journal of Family Issues, 27(7),* 951-975. doi: 10.1177/0192513X05286020

Hannum, J., & Dvorak, D. (2004). Effects of family conflict, divorce, and attachment patterns on the psychological distress and social adjustment of college freshmen. *Journal of College Student Development, 45:1,* 27-42.

Harold, G. T., Shelton, K. H., Goeke-Morey, M. C., & Cummings, M. (2004). Marital conflict, child emotional security about family relationships and child adjustment. *Social Development, 13(3),* 350-376. doi:10.1111/j.1467-9507.2004.00272.x

Heatherington, E. M. (2003). Social support and the adjustment of children in divorced and remarried families. *Childhood, 10(2),* 217-236.

Hooper, L. (2007). Expanding the discussion regarding parentification and its varied outcomes: Implications for mental health research and practice. *Journal of Mental*

Health Counseling, 29:4, 322-337. Retrieved from http://hooperresearchlab.ua.edu/wp-content/uploads/2010/07/Hooper-L.-M.-Journal-of-Mental-Health-2007.pdf

Hooper, L. (2009). *Parentification Inventory.* University of Alabama, Tuscaloosa.

Hooper, L. Marotta, S., & Lanthier, R. (2008). Predictors of growth and distress following childhood parentification: A retrospective exploratory study. *Journal of Child Family Studies, 17,* 693-705. doi: 10.1007/s10826-007-9184-8

Hooper, L., Doehler, K., Wallace, S., & Hannah, N. (2011). The parentification Inventory: Development, Validation, and Cross-Validation. *The American Journal of Family Therapy, 39,* 226-241. doi: 10.1080/01926187.2010.531652

Information International (2012). Marriage and divorce in Lebanon: 33,780 marriages, 4,828 divorces. Retrieved from http://www.information-international.com

Jurkovic, G., Thirkield, A., & Morrell, R. (2001). Parentification of adult children of divorce: A multidimensional analysis. *Journal of Youth and Adolescence, 30(2),* 245-257. doi: 10.1023/A:1010349925974.

Kelly, J.B. & Emery, R.E. (2003). Children's adjustment following divorce: Risk and resilience perspectives. Family Relations, 52(4), 352-362. doi: 10.1111/j.1741-3729.2003.00352.x

Kelly, J.B. (2003). Changing perspectives on children's adjustment following divorce: A view from the United States. *Childhood,10 (2),* 237-254. doi: 10.1177/0907568203010002008.

Kim, J., McHale, S., Crouter, A., & Osgood, D. (2007). Longitudinal linkages between sibling relationships and adjustment from middle childhood through adolescence. *Developmental Psychology*, *43*(4), 960-973.

Lambert, A. (2007). Perceptions of divorce advantages and disadvantages. *Journal of Divorce & Remarriage, 48:1-2,* 55-77. doi:10.1300/J087v48n01_03

Lansford, J.E. (2009). Parental divorce and children's adjustment. *Perspectives on Psychological Science, 4*, 139-152. doi: 10.1111/j.1745-6924.2009.01114.x.

Lau, Y. (2008). Patterns of post-divorce parental alliance and children's self-esteem in Hong Kong. *Journal of Divorce and Remarriage, 47:3-4,* 155-173. doi: 10.1300/ J087v47n03_08

Lustig, J., Wolchik, S. & Braver, S. (1992). Social support and adjustment in children of divorce. *American Journal of Community Psychology, 20(3),* 393-399. Retrieved from http://link.springer.com.ezproxy.aub.edu.lb/content/pdf/10.1007%2FBF00937916

Milevsky, A. (2004). Perceived parental marital satisfaction and divorce: Effects on sibling relations in emerging adults. *Journal of Divorce and Remarriage, 41*(1/2), 115-128. doi: 10.1300/J087v41n01_07

Milevsky, A. (2005). Compensatory patterns of sibling support in emerging adulthood: Variations in loneliness, self-esteem, depression, and life satisfaction. *Journal of Social and Personal Relationships, 22*(6), 743-755. doi: 10.1177/0265407505056447

Minuchin, S. (1974). *Families and Family Therapy*. Cambridge, MA: Harvard University

Moon, M. (2011): The Effects of Divorce on Children: Married and Divorced Parents' Perspectives, Journal of Divorce & Remarriage, 52:5, 344-349. doi:10.1080/10502556.2011.585093

Noller, P., Feeney, J., Sheehan, G., Darlington, Y., & Rogers, C. (2008). Conflict in divorcing and continuously married families: A study of marital, parent-child and sibling relationships. *Journal of Divorce and Remarriage, 42:1-2,* 1-24. doi: 10.1080/10502550801971223

Peng, L., Zhang, J., Li, M., Li, P., Zhang, Y., Zuo, X., & Xu, Y. (2012). Negative life events and mental health of Chinese medical students: the effect of resilience, personality and social support. *Psychiatry Research, 196(1),* 138-141. doi: 10.1016/j.psychres.2011.12.006

Peris, T. S., Goeke-Morey, M., Cummings, M. & Emery, R. E. (2008). Marital conflict and support seeking by parents in adolescence: Empirical support for the parentification construct. *Journal of Family Psychology, 22:3,* 633-642. doi: 10.1037/a0012792

Pollet, T., Nettle, D. (2009). Birth order and adult family relationships: Firstborns have better sibling relationships than laterborns. *Journal of Social and Personal Relationships, 26:8,* 1029-1046. doi: 10.1177/0265407509347940

Poortman, A., & Voorpostel, M. (2008). Parental divorce and sibling relationship: A research note. *Journal of Family Issues, 30(1),* 74-91. doi: 10.1177/0192513X08322782.

Reese-Weber, M. (2000). Middle and late adolescents' conflict and resolution styles with siblings: Association with interparental and parent-adolescent conflict resolution. *Journal of Youth and Adolescence, 29:6,* 697-711.

Riggio, H. (2001). Relations between parental divorce and the quality of adult sibling relationships. *Journal of Divorce and Remarriage, 36(1/2),* 67-82. doi:10.1300/J087v36n01_04.

Sheehan, G., Darlington, Y., Noller, P., & Feeney, J. (2004): Children's perceptions of their sibling relationships during parental separation and divorce. *Journal of Divorce & Remarriage, 41:1-2,* 69-94. doi: 10.1300/J087v41n01_05

Stocker, C., Lanthier, R., & Furman, W. (1997). Sibling relationships in young adulthood. *Journal of Family Psychology, 11:2,* 210-221.

Tabachnick, B. & Fidell, L. (2007). *Using Multivariate Statistics, Fifth Edition*. Pearson: New York.

Tucker, C., Barber, B., & Eccles, J. (2001). Advice about life plans from mothers, fathers, and siblings in always-married and divorced families during late adolescence. *Journal of Youth and Adolescence, 30*(6), 729-747.

Uphold-Carrier, H, & Utz, R. (2012). Parental divorce among young and adult children: A long-term quantitative analysis of mental health and family solidarity. *Journal of divorce and Remarriage, 53(4),* 247-266. doi: 10.1080/10502556.2012.663272

Vélez, C.E., Wolchik, S.A., Tein, J., & Sandler, I. (2011). Protecting children from the consequences of divorce: A longitudinal study of the effects of parenting on children's coping processes. *Child Development, 82,* 244-257. doi: 10.1111/j.1467-8624.2010.01553.x.

Volkom, M., Machiz, C., & Reich, A. E. (2011). Sibling relationships in the college years: Do gender, birth order, and age spacing matter? *North American Journal of Psychology, 13,* 35-50. Retrieved from http://www.freepatentsonline.com/article/North-American-Journal-Psychology/249058089.html

Whiteman, S.D., McHale, S.M., & Soli, A. (2011). Theoretical perspectives on sibling relationships. *Journal of Family Theory & Review, 3,* 124-139. doi: 10.1111/j.1756-2589.2011.00087.x.

Williams, K., & Francis, S. (2010). Parentification and psychological adjustment: Locus of control as moderating variable. *Contemporary Family Therapy, 32,* 231-237. doi:10.1007/s10591-010-9123-5

Wolchick, S., Ruehlman, L., Braver, S. & Sandler, I. (1989). Social support of children of divorce: direct and stress buffering effects. *American Journal of Community Psychology, 17(4),* 485-501. Retrieved from http://link.springer.com.ezproxy.aub.edu.lb/content/pdf/10.1007%2FBF00931174

Xu, A., Zhang, J., & Xia, Y. (2008). Impacts of parents' divorce on Chinese children. *Marriage & Family Review, 42:3,* 91-119. doi: 10.1300/J002v42n03_05

Yu, J., & Gamble, W. (2008). pathways of influence: Marital relationships and their association with parenting styles and sibling relationship quality. *Journal of Child and Family Studies, 17,* 757-778. doi: 10.1007/s10826-008-9188-z

Zimet, D.M., & Jacob, T. (2001). Influences of marital conflict on child adjustment: Review of theory and research. *Clinical Child and Family Psychology Review, 4(4),* 319-335. doi:1096-4037/02/1200-0319/0

Appendix A

Consent form for PSYC 201 Participants

American University of Beirut

P.O. Box 11-0236

Riad El Solh, 1107 2020

Beirut, Lebanon

CONSENT TO SERVE AS A PARTICIPANT IN A RESEARCH PROJECT

Project Title: The Effects of Divorce on the Sibling Relationship in a Sample of University Students

Project Director and Research Investigator: Dr. Fatima Al-Jamil, American University of Beirut, fa25@aub.edu.lb, 01-350000 Ext.4372

Research Collaborator (Co-investigator): Joumana Ammar, American University of Beirut, jwa00@aub.edu.lb

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Nature and Purpose of the Project:

The purpose of the study is to examine the quality of sibling relationships and how it differs between siblings whose parents are divorced and those whose parents are still married.

Explanation of Procedures:

As a research participant you will be asked to fill out some socio-demographic information and four questionnaires: the Parentification Inventory (Hooper, 2009), The MOS Social Support Survey (Sherbourne & Stewart, 1991), the Interparental Conflict Scale (Black & Pedro-Carroll, 1993) and the Lifespan Sibling Relationship Scale (Riggio, 2000).

You will not be asked to provide your name or any identifying information during your participation. Only the primary investigator will have access to the data collected from this study. The data will be kept in a password protected computer in the primary investigator's office.

It is expected that your participation in this research study will last approximately 30 to 40 minutes.

Potential Discomfort and Risks:

There are no more than minimal risks associated with participating in this study.

Potential Benefits:

The potential benefit of you participation in this study is that you will receive one extra point on your final PSYC 201 grade. You will also be contributing to research in the field of psychology in Lebanon. Your participation will contribute to the scarce body of literature concerning the impact of divorce on sibling relationships.

Costs/Reimbursements:

There are no costs associated with you participation in the study. To thank you for your participation in the study, you will receive one extra point on your final PSYC 201 grade

Alternative Procedures:

If you do not wish to participate, no alternative procedures are offered.

Alternatives to Participation:

If you wish not to participate, there will be no penalty and you could either write a brief report on an article in a psychological journal or participate in another study.

Termination of Participation:

Should you decide to consent to participate in this survey, the principle investigator or project director may terminate your participation if the results indicate that you have not abided by the instructions given at the top of each set of questions, if you have not answered truthfully, or if a lot of questions remain unanswered.

Confidentiality:

The results of your participation will remain fully confidential. No identifying information will be linked to the data you have provided. Only data that cannot be traced back to you will be used in reports or manuscripts published or presented by the investigator or director. Raw data on data-recording systems will be kept in a password protected computer in the office of the primary investigator for a period of seven years following the termination of the study after which all data will be permanently deleted.

Withdrawal from the Project:

Your participation in this survey is completely voluntary. You may withdraw your consent to participate in this research at any point without any explanation and without any penalty. You are also free to stop answering this survey at any point in time without any explanation. Should you wish to withdraw, you will not be awarded an extra point on your final PSYC 201 grade.

Debriefing

If you are interested in learning about the outcome of the study, you may contact Joumana Ammar (jwa00@aub.edu.lb). After data analysis would be completed, a summary of the results could be emailed to you upon request.

Who to Call if You Have Any Questions:

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

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

IRB, AUB: 01-350000 Ext. 5543 or 5540

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

Dr. Fatima Al-Jamil, fa25@aub.edu.lb, 01-350000 Ext.4372

Joumana Ammar, jwa00@aub.edu.lb

INSTITUTIONAL REVIEW BOARD APPROVAL STAMP:

Appendix B

Consent form for participants not taking PSYC 201

American University of Beirut

P.O. Box 11-0236

Riad El Solh, 1107 2020

Beirut, Lebanon

CONSENT TO SERVE AS A PARTICIPANT IN A RESEARCH PROJECT

Project Title: The Effects of Divorce on the Sibling Relationship in a Sample of University Students

Project Director and Research Investigator: Dr. Fatima Al-Jamil, American University of Beirut, fa25@aub.edu.lb, 01-350000 Ext.4372

Research Collaborator (Co-investigator): Joumana Ammar, American University of Beirut, jwa00@aub.edu.lb

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Nature and Purpose of the Project:

The purpose of the study is to examine the quality of sibling relationships and how it differs between siblings whose parents are divorced and those whose parents are still married.

Explanation of Procedures:

One hundred AUB undergraduate and graduate students will be recruited through flyers and internet advertisements for the purposes of this study and will be asked to complete some self-report questionnaires using LimeSurvey. As a research participant, you will be asked to fill out some socio-demographic information and four questionnaires: the Parentification Inventory to assess your role in your family (Hooper, 2009), The MOS Social Support Survey to assess the amount and nature of social support you receive from people (Sherbourne & Stewart, 1991), the Interparental Conflict Scale to assess for possible conflict between your parents (Black & Pedro-Carroll, 1993) and the Lifespan Sibling Relationship Scale to assess your relationship with your sibling who is closest in age to you (Riggio, 2000).

A copy of this consent form will be left for you in the Psychology Department's administrative office in Jessup 105 should you wish to pick it up. You will not be asked to provide your name or any identifying information during your participation. Only the primary investigator will have access to the data collected from this study. The data will be kept in a password protected computer in the primary investigator's office.

It is expected that your participation in this research study will last approximately 15 to 20 minutes.

Potential Discomfort and Risks:

There are no risks associated with participating in this study.

Potential Benefits:

The potential benefit of you participation in this study is that you will be contributing to research in the field of psychology in Lebanon. Your participation will contribute to the scarce body of literature concerning the impact of divorce on sibling relationships.

Costs/Reimbursements:

There are no costs associated with you participation in the study.

Alternative Procedures:

If you do not wish to participate, no alternative procedures are offered.

Alternatives to Participation:

If you decide not to participate, there will be no penalty and no participation alternatives are offered.

Termination of Participation:

Should you decide to give consent to participate in this survey, the principle investigator or project director may terminate your participation if the results indicate that you have not abided by the instructions given at the top of each set of questions, if you have not answered truthfully, or if a lot of questions remain unanswered.

Confidentiality:

The results of your participation will remain fully confidential. No identifying information will be linked to the data you have provided. Only data that cannot be traced back to you will be used in reports or manuscripts published or presented by the investigator or director. Raw data on data-recording systems will be kept in a locked cabinet in the office of the primary investigator for a period of seven years following the termination of the study after which all data will be destroyed.

Withdrawal from the Project:

Your participation in this survey is completely voluntary. You may withdraw your consent to participate in this research at any point without any explanation and without any penalty. You are also free to stop answering this survey at any point in time without any explanation.

Debriefing

If you are interested in learning about the outcome of the study, you may contact Joumana Ammar (jwa00@aub.edu.lb). After data analysis would be completed, a summary of the results could be emailed to you upon request.

Who to Call if You Have Any Questions:

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

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

IRB, AUB: 01-350000 Ext. 5543 or 5540

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INSTITUTIONAL REVIEW BOARD APPROVAL STAMP:

Appendix C

Demographic Information

Please fill in the following information:

1. Age:
2. Gender: male / female
3. What is your parents' marital status?
    a. Married
    b. Separated
    c. Divorced
    d. One of my parents is deceased
    e. Both my parents are deceased
4. How many siblings do you have? _____
5. Please indicate your ranking in the family
    a. I am the oldest child
    b. I am the middle child
    c. I am the youngest child

You will later be asked to answer some questions about **one** of your siblings. You are required to answer the questions as they apply to the sibling that is **closest to you in age**.

6. The sibling I will be filling the Lifespan Sibling Relationship Scale about is:
    a. Male
    b. Female

7. The sibling I will be filling the Lifespan Sibling Relationship Scale about is _____ years old
8. This sibling and I live in the same house: Yes / No
9. I have a close friend or relative whose parents are divorced: Yes / No
10. If your parents are **divorced**, how old were you when they got divorced?

I was _____ years old.

11. If your parents are **divorced**, which parent do you live with currently?
    a. My mother
    b. My father

Appendix D

The MOS Social Support Survey (Sherbourne & Stewart, 1991)

Instructions: Sometimes people look to others for companionship, assistance, or other types of support. How often is each of the following kids of support available to you if you need it?

1	2	3	4	5
None of the time	A little of the time	Some of the time	Most of the time	All of the time

1.	Someone to help you if you were confined to bed	1	2	3	4	5
2.	Someone you can count on to listen to you when you need to talk	1	2	3	4	5
3.	Someone to give you good advice about a crisis	1	2	3	4	5
4.	Someone to take you to the doctor if you needed it	1	2	3	4	5
5.	Someone who shows you love and affection	1	2	3	4	5
6.	Someone to a have a good time with	1	2	3	4	5
7.	Someone to give you information to help you understand you problems	1	2	3	4	5
8.	Someone to confide in or talk to about yourself or your problems	1	2	3	4	5

9. Someone who hugs you	1	2	3	4	5
10. Someone to get together for relaxation	1	2	3	4	5
11. Someone to prepare your meals if you were unable to do it yourself	1	2	3	4	5
12. Someone whose advice you really want	1	2	3	4	5
13. Someone to do things with to help you get your mind off things	1	2	3	4	5
14. Someone to help with daily chores if you were sick	1	2	3	4	5
15. Someone to share your most private worries or fears with	1	2	3	4	5
16. Someone to turn to for suggestions about how to deal with a personal problem	1	2	3	4	5
17. Someone to do something enjoyable with	1	2	3	4	5
18. Someone who understands your problems	1	2	3	4	5
19. Someone to love and make you feel wanted	1	2	3	4	5

Appendix E

The Lifespan Sibling Relationship Scale (Riggio, 2000)

Instructions: Pleas answer the following questionnaire about your relationship with your sibling that is closest to you in age.

1	2	3	4	5
Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

1. My sibling makes me happy	1	2	3	4	5
2. My sibling's feelings are very important to me	1	2	3	4	5
3. I enjoy my relationship with my sibling	1	2	3	4	5
4. I am proud of my sibling	1	2	3	4	5
5. My sibling and I have a lot of fun together	1	2	3	4	5
6. My sibling frequently makes me very angry	1	2	3	4	5
7. I admire my sibling	1	2	3	4	5
8. I like to spend time with my sibling	1	2	3	4	5
9. I presently spend a lot of time with my sibling	1	2	3	4	5
10. I call my sibling on the telephone frequently	1	2	3	4	5
11. My sibling and I share secrets	1	2	3	4	5

12. My sibling and I do a lot of things together	1	2	3	4	5
13. I never talk about my problems with my sibling	1	2	3	4	5
14. My sibling and I borrow things from each other	1	2	3	4	5
15. My sibling and I “hang out” together	1	2	3	4	5
16. My sibling talks to me about personal problems	1	2	3	4	5
17. My sibling is a good friend	1	2	3	4	5
18. My sibling is very important in my life	1	2	3	4	5
19. My sibling and I are not very close	1	2	3	4	5
20. My sibling is one of my best friends	1	2	3	4	5
21. My sibling and I have a lot in common	1	2	3	4	5
22. I believe I am very important to my sibling	1	2	3	4	5
23. I know that I am one of my sibling’s best friends	1	2	3	4	5
24. My sibling is proud of me	1	2	3	4	5
25. My sibling bothered me a lot when we were children	1	2	3	4	5
26. I remember loving my sibling very much when I was a child	1	2	3	4	5
27. My sibling made me miserable when we were children	1	2	3	4	5

28. I was proud of my sibling when I was a child	1	2	3	4	5
29. I enjoyed spending time with my sibling as a child	1	2	3	4	5
30. I remember feeling very close to my sibling when we were children	1	2	3	4	5
31. I remember having a lot of fun with my sibling when we were children	1	2	3	4	5
32. My sibling and I often had the same friends as children	1	2	3	4	5
33. My sibling and I shared secrets as children	1	2	3	4	5
34. My sibling and I often helped each other as children	1	2	3	4	5
35. My sibling and I looked after each other when we were children	1	2	3	4	5
36. My sibling and I often played together as children	1	2	3	4	5
37. I talked to my sibling about problems when we were children	1	2	3	4	5
38. My sibling and I were “buddies” as children	1	2	3	4	5
39. My sibling did not like to play with me when we were children	1	2	3	4	5
40. My sibling and I were very close when we were children	1	2	3	4	5
41. My sibling and I were important to each other when we were children	1	2	3	4	5
42. My sibling had an important and positive effect on my	1	2	3	4	5

childhood					
43. My sibling knew everything about me when we were children	1	2	3	4	5
44. My sibling and I liked all the same things when we were children	1	2	3	4	5
45. My sibling and I had a lot in common as children	1	2	3	4	5

Appendix F

Interparental Conflict Scale (Black & Pedro-Carroll, 1993)

Instructions: Please circle the response choice that answers the following questions about conflict between your parents, both currently and while you were growing up.

1. How often did your parents fight while you were growing up?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

2. How angry were your parents when they fought?

1	2	3	4	5
My parents never fought	Not at all angry	Slightly angry	Fairly angry	Very angry

3. Sometimes people experience conflict without actually fighting openly. While you were growing up, how often did your parents treat each other with an underlying atmosphere of hostility, without fighting openly?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

4. Currently, how often do your parents fight?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

5. Currently, how angry are your parents when they fight?

1	2	3	4	5

My parents never fight	Not at all angry	Slightly angry	Fairly angry	Very angry

6. Sometimes people experience conflict without actually fighting openly. Currently, how often do your parents treat each other with an underlying atmosphere of hostility, without fighting openly?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

7. How supportive of each other were your parents while you were growing up?

1	2	3	4	5
Very unsupportive	Somewhat unsupportive	Neither supportive or unsupportive	Somewhat supportive	Very supportive

8. When your parents discussed parenting issues while you were growing up, how often did they argue?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

9. While you were growing up, how often did your parents try to one-up or outdo each other?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

10. While you were growing up, how often did your parents criticize each other?

1	2	3	4	5
Never	Seldom	Occasionally	Fairly often	Very often

Appendix G

Parentification Inventory (Hooper, 2009)

Instructions: The following are questions about your thoughts, behaviors, and feelings, concerning yourself and your family **when you were growing up**. Please read each statement carefully. Select a response based on how true the statement is on a scale of 1 (never true) to 5 (always true). Be sure to answer every question as accurately as possible.

1	2	3	4	5
Never True	Rarely True	Sometimes True	Often True	Always True

1. I was expected to comfort my sibling(s) when they were sad or having emotional difficulties.	1	2	3	4	5
2. My parent(s) often shared secrets with me about other family members.	1	2	3	4	5
3. Most children living in my community contributed to their family's finances.	1	2	3	4	5
4. I had time for myself to be happy or sad even though I had to care for family members.	1	2	3	4	5
5. I helped my parent(s) make important decisions.	1	2	3	4	5
6. I was responsible for making sure that my siblings went to bed every night.	1	2	3	4	5
7. I felt appreciated by my family.	1	2	3	4	5
8. Most children my age had the same roles and responsibilities that I did.	1	2	3	4	5

9. I had time for play or school work even though I had family responsibilities.	1	2	3	4	5
10. I worked and contributed to the family finances.	1	2	3	4	5
11. I was responsible for helping my siblings (brother/sister) complete their homework.	1	2	3	4	5
12. I was the first person family members turned to when there was a family disagreement.	1	2	3	4	5
13. I was the primary person who disciplined my siblings.	1	2	3	4	5
14. I often helped solve problems between my parent(s) (or adult caregivers in my family).	1	2	3	4	5
15. I really enjoyed my role in my family.	1	2	3	4	5
16. I was expected to comfort my parent(s) when they were sad or having emotional difficulties.	1	2	3	4	5
17. I was in charge of doing the laundry for the family most days of the week.	1	2	3	4	5
18. I served in the role of referee for my family.	1	2	3	4	5
19. I was the person with whom family members shared their secrets.	1	2	3	4	5
20. I felt like our family was a team and worked well together.	1	2	3	4	5
21. I was asked to complete the grocery shopping more than any other family members.	1	2	3	4	5
22. I served in the role of translator for family members.	1	2	3	4	5