Long-term life satisfaction and fear of intimacy in siblings of pediatric cancer patients

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Long-term life satisfaction and fear of intimacy in siblings of pediatric cancer patients

Abstract
This study evaluated the impacts of pediatric cancer on siblings of pediatric cancer patients. Specifically, it looked at the ways in which having had a sibling with cancer might impact one's level of life satisfaction, fear of intimacy, and parental bonding. A college aged sample of 40 participants was used to evaluate these impacts utilizing both a sibling and control group. Results indicated that siblings and controls did not differ significantly in these areas. However, siblings demonstrated a significant negative relationship between fear of intimacy and life satisfaction whereas this relationship was not significant for controls. In addition, siblings were significantly less likely to report feeling that relationships were safe than controls. Overall, the results indicate the need for further research and understanding into the impacts of pediatric cancer on siblings.

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LONG-TERM LIFE SATISFACTION AND FEAR OF INTIMACY IN SIBLINGS OF PEDIATRIC CANCER PATIENTS

A DISSERTATION
SUBMITTED TO THE FACULTY
OF
SCHOOL OF PROFESSIONAL PSYCHOLOGY
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BY
ERIN MCCUTCHÉON, M.S.

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PSYCHOLOGY

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This study evaluated the impacts of pediatric cancer on siblings of pediatric cancer patients. Specifically, it looked at the ways in which having had a sibling with cancer might impact one's level of life satisfaction, fear of intimacy, and parental bonding. A college aged sample of 40 participants was used to evaluate these impacts utilizing both a sibling and control group. Results indicated that siblings and controls did not differ significantly in these areas. However, siblings demonstrated a significant negative relationship between fear of intimacy and life satisfaction whereas this relationship was not significant for controls. In addition siblings were significantly less likely to report feeling that relationships were safe than controls. Overall, the results indicate the need for further research and understanding into the impacts of pediatric cancer on siblings.

Key Words:

Pediatric Cancer

Siblings

Fear of Intimacy

Parental Bonding

Life Satisfaction
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Introduction

In 2007, an estimated 10,400 children under the age of 15 were diagnosed with cancer (American Cancer Society, 2007). Given that the average family with children has 1.86 children, it is likely that more than 10,000 siblings are impacted by pediatric cancer each year (US Census Bureau, 2000). As survival rates have advanced, so too have the length and intensity of treatments. Today’s treatments, usually chemotherapy, radiation, and/or surgery, can be painful, lengthy, and require hospitalization. Such treatments can disrupt the family milieu as siblings stay overnight in the hospital, parents and other family members have increased distress, parents have less time to spend with well siblings, and the family sometimes experiences stress related to financial difficulties associated with medical costs.

Although pediatric cancer is increasingly less fatal, the diagnosis and treatment of pediatric cancer can still be traumatic for both the child diagnosed (Alderfer, Navasaria, & Kazak, 2009; Pelcovitz, Libov, Mandel, Kaplan, Weinblatt, & Septimus, 1998) as well as the child’s family (Abrams, Hazen, & Penson, 2007; Patenaude & Kupst, 2005; Pelcovitz et al., 1998; Woodgate, 2006). Some studies have even found that siblings of pediatric cancer patients (SOPCP) are more psychologically impacted by diagnosis and treatment than the pediatric cancer patients (PCP) themselves (Cairns, Clark, Smith, & Lanksy, 1979). Despite this, the literature has largely focused on the psychological impacts of cancer on PCP’s. The studies that have been done on siblings are mainly focused on the presence or absence of psychopathology in SOPCP’s shortly following diagnosis or treatment. Lubit, Rovine, Defrancisci, and Eth (2003) argued that siblings may experience difficulties with psychological adaption, which are not captured by
traditional psychopathology measures, and that focusing on psychopathology can cause professionals to overlook siblings’ deterioration of social and academic functioning. SOPCP’s may also experience long-term difficulties in adaption that are not seen in studies that extend, at most, to three years beyond diagnosis. Further, it is important to understand the impacts of sibling relationships and the long-term impacts of trauma on children. An understanding of non-psychopathological areas (i.e., fear of intimacy and life satisfaction) that might be affected by having had a sibling with pediatric cancer is thus warranted.

**Impacts of the Sibling Relationship**

Sibling relationships are among the most influential relationships children experience (Branje, Van Lieshout, Aken, & Haselager, 2004). In the United States, Caucasian siblings in middle childhood spend more time with each other than with any other person (McHale & Crouter, 1996). Above and beyond sheer time spent together, siblings have the unique experience of participating in both complementary roles and reciprocal roles with each other. Complementary roles involve siblings observing and learning from each other without direct interaction. During reciprocal roles, siblings interact with each other and learn from the direct interaction. Through complementary interactions a younger sibling may be taught or shown, through modeling, how to behave socially and during reciprocal interactions siblings can practice their social skills and increase their social expertise (Tucker & Updengraff, 2009). Thus, siblings may have a large influence on each other’s social skill development and may also serve as sources of support. During times of stress or separation, when one sibling may be unavailable for support, the other child may be at an increased risk of adjustment difficulties in the face
of stressors, as well as other negative outcomes (Kramer & Cogner, 2009). Given the importance of sibling relationships on social development, and the deleterious effects of separation, it appears that having a sibling with cancer might put SOPCP at increased risk of difficulties in social development and adaption. The long-term impacts of these difficulties have not been studied.

**Long Term Impacts of Trauma**

The long-term impacts of childhood trauma are not yet fully understood. Some studies have found that, although children appear to adapt immediately following trauma, they sometimes experience late effects of their trauma in adulthood. For example, Lubit et al. (2003) found that victims of either childhood physical or sexual abuse show higher rates of PTSD (72-100%) when assessed as adults than those who were assessed during childhood (21-55%). Further, Drapeau and Perry (2004) found that adults who had experienced traumatic childhood events internalized their trauma, affecting their wishes, emotions, and behaviors decades later. Both of these studies support the conclusion that the full impact of trauma may not be evidenced until the child reaches adulthood, develops cognitively, and experiences adult relationships.

Children’s views of themselves and of the world change and develop throughout childhood. As such, children are vulnerable to developing negative views of themselves or of the world following trauma (Lubit et al., 2003). Their understanding of relationships as safe or unsafe is also in flux, and trauma can cause children to feel that relationships are undependable, or dangerous. Hence, experiencing the threatened loss of a sibling, the disruption of family, and observing fear in parents might shape the child’s view of the world as being dangerous, or of intimate relationships as being unsafe. These feelings,
especially in relation to intimate relationships, might lead to the development of a fear of intimacy.

**Fear of Intimacy**

Fear of intimacy has been described as a reduced ability to form and maintain close relationships with others, and has been associated with experiences of trauma, illness, and loss (Kopp-Smith, 2009; Lloyd, Robinson, Andrews, Elston, & Fuller, 1993; Repic, 2007). While authors have long posited the importance of intimacy (Erikson, 1963; Orlofsky, Marcia, & Lesser, 1973), the construct is still not well defined or well understood. Despite this, several authors have explored the impacts of trauma on intimacy and fear of intimacy.

Battle, Ducharme, and Koverola (1997); Davis, Petretic-Jackson, and Ting (2001); and Repic (2007) have all evaluated the relationship between child abuse and fear of intimacy. In their sample of 128 male and 148 female undergraduates, Battle et al. (1997) evaluated the relationship between experiencing childhood abuse and level of reported intimacy in college. In order to assess childhood abuse, the Family Conflict Questionnaire, a study-developed questionnaire based on the Child Physical Maltreatment Scale (Runtz, 1991), was utilized. Intimacy was assessed using the Identity and Intimacy subscales of the Erikson Psychosocial Stage Inventory (Rosenthal, Gurney, & Moore, 1981) as well as through the Intimacy Attitude Scale Revised (Amidon, Kumar, & Treadwell, 1983), a scale assessing an individual’s feelings, attitudes, and relationships with others. Battle et al. found that abuse status was negatively related to intimacy scores; essentially those who had not experienced child abuse had significantly higher intimacy scores than those who had experienced child abuse.
Similarly, Davis et al. (2001) evaluated 315 female undergraduates for the relationship between sexual, physical, or psychological abuse and fear of intimacy. In order to assess sexual or physical abuse, questions were taken from the Maltreatment Questionnaire (Petretic-Jackson, Ames, Betz, Katsikas, Pitman, & Lawless, 1993). To assess psychological abuse, the Psychological Maltreatment Scale, a questionnaire consisting of items from Briere and Runtz’s (1990) scale on psychological maltreatment was used in addition to questions from Betz (1993) and Waitzman’s (1995) more recent studies. Fear of intimacy was evaluated using The Fear of Intimacy Scale (FIS; Descutner & Thelen, 1991). Significant differences were found in fear of intimacy between abused and non-abused groups. Additionally, those who experienced multiple forms of abuse reported greater fear of intimacy than any other group.

Repic (2007), evaluated the association between physical abuse in childhood and fear of intimacy in adult partner relationships in a sample of 68 men and 110 women. This sample included 108 married persons and 70 divorced persons with a mean age of 43. Fear of intimacy was measured using the FIS and physical abuse was measured using the Conflict Tactics Scales (Straus, 1979). Repic found that those who had experienced physical abuse in childhood had significantly higher rates of fear of intimacy than those who had not experienced child abuse. All of these studies indicate that one type of childhood trauma or abuse can lead to less intimacy in adult relationships or even to a fear of intimacy.

Thompson (2007) examined the relationship between pediatric cancer and intimacy in young adult survivors. She utilized a sample of sixty 18-25 year-old survivors of cancer, and 60 demographically similar healthy control participants. Thompson
reviewed medical charts to determine treatment intensity, and used several self-report measures to assess relationship history and satisfaction. Specifically, she used the Dating/Romantic Relationships Measure (Bagwell, 1996) to assess relationship history, and the Relationship Assessment Scale (Hendrik, 1988) and the Quality of Marriage Index (Norton, 1983) to assess relationship satisfaction. Thompson also utilized the Miller Social Intimacy Scale (Miller & Lefcourt, 1982) as well as the FIS (Descutner & Thelen, 1991) to assess for current levels of intimacy and fear of intimacy. Thompson found that young adult survivors of pediatric cancer reported being involved in fewer romantic relationships throughout the past five years than control participants. On quantitative measures of intimacy and fear of intimacy, no differences between the survivors and controls were found, but during qualitative interviews all survivors reported perceived difficulties with self-disclosure and at least one area of difficulty in their close relationships. These results may indicate that quantitative measures are not sensitive enough to capture intimacy difficulties in survivors of pediatric cancer. They may also indicate that fear of intimacy is not a significant concern for survivors of pediatric cancer. However, given their self-reported difficulties, and the differential impacts of pediatric cancer on siblings, this study certainly indicates that intimacy should be further examined for this population. While no studies have been found, up to this point, that have looked at siblings of pediatric cancer patients in relation to fear of intimacy, there have been a limited number of studies examining the social implications of having had a sibling with a chronic illness, including pediatric cancer.

Barak and Solomon (2005) examined the impact of having had a sibling with a chronic illness, specifically the impact of schizophrenia on non-schizophrenic siblings in
terms of degree of closeness with siblings as well as social interactions. They used a
taxone of 52 siblings and 48 controls with both groups ranging in age from 18-50. The
sibling relationship was evaluated using study-created questions assessing participants’
relationship with, and closeness to, their sibling before and after the sibling’s illness
presented. To assess interaction with the social environment they asked questions
regarding readiness to reveal their sibling’s illness to intimate others, and the impact of
their sibling’s illness on their social relationships. The authors found that the healthy
siblings reported less exposure to social relationships, and had stronger feelings of shame
than control groups. They also found that they reported stronger feelings of helplessness,
pity, and worry. Finally, they found that siblings expressed less closeness in their
relationship with their sick sibling and their parents.

Similarly Prchal and Landolt (2012) used a sample of 7 SOPCP’s between 11 and
18 years of age in their qualitative study of the experiences of SOPCP’s in the first half-
year after a cancer diagnosis. Siblings were interviewed surrounding their experiences in
their family and with peers. The study authors found that siblings reported difficulties in
all areas of life. Specifically, siblings reported less physical availability of their parents
due to them being at the hospital, and reported mental and psychological impairments in
their parents as a result of their sibling’s diagnosis/treatment. Neither the Thompson
(2007) study nor the Prchal and Landolt (2012) study evaluated if this lack of closeness
led to a lack of intimacy in adult relationships, or to a fear of intimacy. However, it is
realistic to hypothesize that decreased closeness to one’s parents and siblings might cause
decreases in future intimacy, and increases in future fear of intimacy.
Fanos and Nickerson (1991) sampled 25 participants under the age of 19 (with 8 adolescents) whose sibling had cystic fibrosis. Although they did not use any quantitative measures of fear of intimacy, six of the eight adolescents interviewed reported that they were concerned about the establishment of intimate relationships. One adolescent stated, “I’m reluctant to get involved at this point in my life because I don’t want to deal with the whole thing. I don’t want children that are going to die.” (p. 77). This study looked at siblings of cystic fibrosis patients who had died, which may be less representative of the experience of having a sibling who was or had been sick. Despite this, this study along with Barak and Solomon’s study provide support for the idea that SOPCP may be at risk of developing a fear of intimacy.

Foster et al. (2012) evaluated the frequency of changes in SOPCPs after a child’s death from cancer. They drew participants from three hospitals in the United States and Canada whose sibling had died 3 to 12 months prior. They interviewed 36 mothers, 24 fathers, and 39 siblings using semi-structured interviews with open-ended questions. They found that 47% of participants noted changes in siblings’ relationships with family members and peers. Specifically 33% of SOPCPs interviewed reported changes in their relationships with peers. One sibling said, “I couldn’t relate to the kids at school as much… Friendships sort of changed. I looked at everything everybody said a lot differently.” (p. 351). This suggests that siblings may be at an increased risk of experiencing negative social experiences, which may increase their risk of developing a fear of intimate relationships.
Fleary and Heffer (2013) examined the impact of growing up with an ill sibling on late adolescent psychological functioning. They utilized a sample of 40 college aged (18-24 years old) participants who identified themselves as growing up with an ill sibling. Each participant was given a demographic questionnaire; The Personality Assessment Screener (Morey, 1997) to assess for negative affect, acting out, health problems, psychotic features, social withdrawal, hostile control, suicidal thinking, alienation, alcohol problems, and anger control; the My Feelings and Concerns Sibling Questionnaire (Carpenter & Sahler, 1991) in order to evaluate the perception and adaption of well siblings to chronic illness of a sibling; as well as a semi-structured interview designed to illicit retrospective and current adaption and coping of having had a sibling with cancer. The study authors found that siblings were potentially experiencing more social withdrawal, and that there was a positive relationship between siblings’ retrospective reporting of poor parental communication during childhood and social withdrawal and alienation. This suggests that the lack of communication siblings may experience during cancer diagnosis and treatment may lead to increased social withdrawal and alienation later in life. This study, along with those previously reviewed, suggest that a fear of intimacy may be a serious area of concern for SOPCP. Further research in this area is necessary in order to better understand the relationship between having a sibling with pediatric cancer, and developing a fear of intimacy.

Quality of Life

Quality of life is a construct that is characterized by life satisfaction and appraisals of one’s life, which can be assessed both objectively and subjectively. Tate and Forchheimer (2002) argue that life satisfaction refers to an individual’s subjective
cognitive-judgmental aspects of quality of life. Given the similarities between quality of life and life satisfaction, both should be considered in terms of their relationship to childhood trauma, and pediatric cancer, for siblings of the chronically ill.

Rikhye et al. (2008) evaluated adults, aged 18-65, in terms of childhood trauma, parental bonding, depression, and quality of life. In order to assess these constructs the Childhood Trauma Questionnaire (Bernstein & Fink, 1998), the Parental Bonding Instrument (Parker, 1979), the Inventory of Depressive Symptomatology-Self-Report (Rush, Gullion, Basco, Jarrett, & Trivedi, 1996), and the Quality of Life Enjoyment and Satisfaction Questionnaire (Endicott, Nee, Harrison, & Blumenthal, 1993) were utilized. Rikhye et al. (2008) found that child maltreatment was positively correlated with lower levels of quality of life. More significantly, the authors found that it was actually the low parental bonding that was correlated with lower levels of adult quality of life. This is especially important given that SOPCP report less closeness with their parents (Barak & Sollomon, 2005). This might indicate that SOPCP are at risk of decreased quality of life.

Zebrack and Chesler (2002) evaluated 176 young adult survivors of pediatric cancer in regards to their quality of life. Through use of the Quality of Life-Cancer Survivors scale (Ferrell, Dow, & Grant, 1995), the authors found that adults who previously had pediatric cancer appear to adjust well but exhibit difficulties in social relationships that lead to lower levels of quality of life.

Houtzager, Grootenhuis, Caron, and Last (2004) evaluated the quality of life and psychological adaption of siblings two years following the diagnosis of pediatric cancer in their brother or sister. They evaluated a sample of 53 Dutch participants, aged 7-18, who were part of a longitudinal study as well as a sample of 46 retrospective Dutch
participants who were not enrolled in the larger longitudinal study. Self-report measures were utilized to evaluate several different areas of functioning. The State-Trait Anxiety Inventory for Children (Spielberger, Gorsuch, & Luschene, 1970) was used to assess for trait anxiety, the Youth Self-Report (Achenbach, 1983) was used to assess for internalizing and externalizing problems, and two similar measures, the Dutch Children’s AZL/TNO Quality-of-Life Questionnaire (Kolsteren, Koopman, Schalkeamp, & Mearin, 2001) and the TNO AZL Children’s Quality-of-Life questionnaire (Vogels, Verrips, Koopman, Theunissen, Fekkes, & Kamphius, 2000) were used to assess quality of life. The study authors found that siblings (aged 7-11) of those diagnosed reported lower quality of life than their same age controls. Given that children present lower quality of life following trauma, as well as the limited information regarding SOPCP’s quality of life and life satisfaction following trauma and whether any negative effects continue into adulthood, this is an area that should be the focus of further study.

Interaction Between Fear of Intimacy and Quality of Life

Reis and Shaver (1988) posited that lack of intimacy, as maintained by a fear of intimacy, may reduce quality of life. Thus, it is important to understand the relationship between these constructs in victims of childhood traumas. The relationship between intimacy, quality of life, and psychological adjustment was addressed by Khaleque (2004) in his study of 64 undergraduate and graduate students aged 19-43. To assess psychological adjustment, Khaleque utilized the Adult version of the Personality Assessment Questionnaire (Rohner, 1991), to assess intimacy he used the Intimate Partner Acceptance-Rejection/Control Questionnaire (Rohner, 2001), and to assess quality of life he utilized the Life Descriptive Scale (Wright, 1978). Khaleque found that
there were significant correlations between intimate relationships and quality of life. Specifically, those who reported more negative intimate relationships reported having less life satisfaction.

In regards to cancer patients, Carpenter (2007) assessed the relationship between dating anxiety and psychological distress in a sample of 39 adolescents, aged 12-19, with cancer. In order to assess dating anxiety and fear of intimacy, the Dating Anxiety Scale for Adolescents (Glickman & La Greca, 2004) and the FIS (Descutner & Thelen, 1991) were used. Psychological distress was measured using the Brief Symptom Inventory (Derogatis, 1993). She found that higher levels of fear of intimacy were related to increased levels of psychological distress in adolescents with pediatric cancer. While psychological distress is a different construct than life-satisfaction, this distress could presumably lead to less life satisfaction and lower quality of life.

**Summary and Hypotheses**

The full impact of pediatric cancer on siblings is not yet well understood. While most studies find that siblings of pediatric cancer adapt well following their cancer, these studies may fail to capture the non-pathological impact that siblings may face (Lubit et al., 2003). Qualitative studies have found long-term impacts of pediatric cancer, while quantitative studies often fail to find such impacts (Thompson, 2007). This may be because qualitative research offers less of a focus on pathology and more of a focus on difficulties salient to participants. By looking at areas that are not necessarily pathological, the present study may help to quantitatively define areas of difficulty in SOPCP’s.
In sum, fear of intimacy and life-satisfaction are important areas to consider in understanding the psychological adaption of SOPCP’s. These areas, and particularly fear of intimacy, have been neglected within the literature, and thus a better understanding of these concepts would contribute to a better understanding of SOPCP and their treatment needs. The long-term impacts on siblings have also been neglected in the literature with even “long-term” studies extending only 2-3 years past diagnosis. To that end, the present study utilized self-report measures to assess for fear of intimacy and life-satisfaction in college-age SOPCP. It was hypothesized that:

1. SOPCP would report lower levels of care and higher levels of overprotection on the Parental Bonding Instrument than those in the control group.

2. SOPCP would report higher levels of fear of intimacy as compared to peers without a history of having had a sibling who was diagnosed with pediatric cancer.

3. SOPCP would report lower life satisfaction than same-age peers whose sibling never had pediatric cancer.

4. SOPCP would display a significant negative correlation between fear of intimacy and life satisfaction.

5. Those in the control group (without a family history of cancer) would also display a significant negative correlation between fear of intimacy and life satisfaction.

6. SOPCP would endorse the statement “I feel that, in general, the world is a safe place” significantly less than those in the control group.

7. SOPCP would endorse the statement “I feel that, in general, relationships are safe” significantly less than those in the control group.
Method

Participants

Twenty-two college-aged (aged 18-24) participants whose siblings had pediatric cancer diagnosed at least 5 years prior were recruited through a combination of three strategies discussed below. These participants were recruited for an online survey, which assessed their parental bonding, fear of intimacy, and life satisfaction. Participants were excluded if they had ever been diagnosed with cancer, if another close family member had been diagnosed with cancer, or if they reported experiencing significant physical or sexual abuse. After consideration of exclusionary criteria, 15 participants were retained for analysis.

To serve as a control group, thirty-eight college-aged (18-24) participants who did not have a sibling with pediatric cancer were recruited through a combination of three strategies, discussed below. These participants were asked to complete the same online survey assessing their parental bonding, fear of intimacy, and life satisfaction. Participants were excluded from the control group if they had any immediate family history of cancer, had cancer or a chronic illness themselves, had a history of sexual or physical abuse, or had no siblings. After exclusionary criteria, 25 participants were retained for analysis.

Procedure

Recruitment e-mails (see Appendix A) were sent to universities and colleges throughout the country. E-mails were also sent to support groups for SOPCP, PCP, and families of PCP. Finally recruitment occurred through a “snow-ball” sampling method throughout different college-age and pediatric cancer communities. Those who were
interested were provided a web link that directed them to the online survey. Survey data were collected through an online survey tool, Survey Gizmo, which assessed background information including participants’ age, gender, and the presence/absence of having had a sibling who was diagnosed with pediatric cancer. This survey evaluated the participants’ reported relationship with their parents growing up, current levels of fear of intimacy, and their current life satisfaction. The survey took approximately 15-30 minutes and was anonymous. This survey was also used in order to obtain informed consent (Appendix B). Upon completion, participants had the option to be entered into a raffle for one of two $25.00 Amazon gift certificates. In order to be entered into the raffle for the Amazon gift cards, a linked web address was used, thus keeping participants’ information anonymous.

**Measures**

In order to determine the relationship between SOPCP, parental bonding, fear of intimacy, and life satisfaction several measures were utilized. Basic demographic and cancer-related inquiries were asked using questions developed for this survey such as “How old are you?” and “Have you ever had a family member with cancer?” (see Appendix C). In addition to demographic data, questions regarding SOPCP’s general beliefs about the world and relationships were used such as “Do you think that, in general, the world is safe?” and “Do you think that, in general, relationships are safe?” (see Appendix C).

Participants’ level of bonding with their parents was assessed using the Parental Bonding Instrument (Parker, Tupling, & Brown, 1979), a 25-item self-report scale that assesses participants’ respective memory of their parental bonding during their first 16 years (See Appendix D). This instrument consists of two scales, which measure “care”
and “overprotection.” Higher scores on both scales indicate higher levels of those traits (either care or protection/control) within participants’ parenting. In addition to the care and protection scores, the scale also allows for the placement of parents into quadrants based on their scores. The quadrants are as follows: “affectionate constraint”: high care and high protection; “optimal parenting”: high care and low protection; “affectionless control”: high protection and low care; and “neglectful parenting”: low care and low protection. During development and validation, Parker et al. (1979) found high internal consistency in both care (Chronbach’s=.88) and overprotection (Chronbach’s=.74). Authors also found adequate test-retest reliability coefficients for both the care scale (Chronbach’s=.74) and the over protection scale (Chronbach’s=.63).

Fear of intimacy was assessed using the Fear of Intimacy Scale (FIS; Descutner & Thelen, 1991), a 35-item self-report scale that assesses fear of intimacy in romantic relationships (See Appendix E). This measure assesses for an inhibited capacity to exchange ideas and emotions with a significant other due to fear. Specifically, it assesses for (a) content, statement of personal information; (b) emotional valence, strong emotions about the personal information communicated; and (c) vulnerability, the confidant’s perceived emotional importance. Items are rated on a 5-point Likert scale from 1 being “not at all characteristic of me” to 5 being “extremely characteristic of me” and are summed to create an aggregate score. Higher scores on the FIS indicate more fear of intimacy. The FIS has been found to be a valid and reliable measure of fear of intimacy. During the development and validation of this measure Descutner and Thelen (1991) found high internal consistency (Chronbach’s=.93) and test-retest reliability (Pearson Correlation=.89, p<.001) estimates.
In order to assess subjective quality of life, the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) was used. This is a 5-item self-report measure that assesses global satisfaction with one’s life (See Appendix F). This scale has been normed on American college students, among many other populations. Diener et al. found strong internal consistency (Chronbach’s=.87) and test-retest reliability (Pearson Correlation=.82) estimates. Construct validity was also established through convergent and discriminate validity (Arrindell, Meeuwesen, & Huyse, 1991; Diener et al., 1985; Pavot & Diener, 1991; Larsen, Diener, & Emmons, 1985). Thus, the SWLS has been found to be a valid and reliable measure of general life satisfaction.

**Statistical Analysis**

In order to assess the relationship between SOPCP with parental bonding, later life satisfaction, and fear of intimacy (Hypotheses 1, 2, and 3), independent samples t-tests were utilized. The two conditions were whether or not the participant has had a sibling with cancer, and the dependent variables were their fear of intimacy, their parental bonding (to either parent) or their life satisfaction. In order to evaluate the relationship between fear of intimacy and life satisfaction (Hypotheses 4 and 5) Pearson’s product moment correlations were conducted. In order to assess the relationship between having a sibling with cancer and feeling that the world or relationships are not safe (Hypotheses 6 and 7) Pearson’s Chi-Square analyses were completed.

Prior to analysis, variables were tested to assess whether or not they met normal distribution, linearity, and homogeneity of variance assumptions. Additionally, the presence of outliers was assessed using a scatter plot. No outliers were found or excluded from this analysis.
Results

Sample Characteristics

This study utilized a sample of 40 participants, 15 SOPCP and 25 Controls, with an average age of 19.87. The average age of SOPCP and Controls was similar between groups, with SOPCP’s having a slightly higher average age (21.43 years old) than the control group (19 years old). The racial makeup of the overall sample was 75% classifying themselves as Caucasian, 20% as Asian, and 5% classifying themselves as “other.” A higher percentage of Caucasians were represented in the SOPCP group (80%) when compared to the control group (72%). The opposite was true in relation to Asian participants who were less represented in the SOPCP group (13.3%) as opposed to the control group (24%). In relation to the “other” category neither the SOPCP’s nor the control group demonstrated a large percentage of participants (6.7% of SOPCPs and 4% of Controls). Although there was some variation, there does not appear to be significant differences in relation to race. There were some differences, however, in relation to gender. In both groups men were underrepresented, with 70% of the combined samples being female. Males were less represented in the control group, where only 24% of the sample was male, as opposed to 40% of males in the SOPCP group sample. This difference may be related to sampling methods, in that most of the control participants were recruited from college samples where there is a larger percentage of female students, whereas SOPCPs were recruited using both a snowball sampling method and recruitment through cancer organization where it is possible genders are more equally represented.
Table 1 demonstrates the means of participants on all measures:

<table>
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<tr>
<th></th>
<th>SOPCP</th>
<th></th>
<th></th>
<th>Controls</th>
<th></th>
<th></th>
<th>Total</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Min</td>
<td>Max</td>
<td>M</td>
<td>SD</td>
<td>Min</td>
<td>Max</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Number of Relationships</td>
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<td>3</td>
<td>.91</td>
<td>1.04</td>
<td>0</td>
<td>4</td>
<td>1.13</td>
<td>1.06</td>
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<tr>
<td>Parental Bonding: Maternal Caring</td>
<td></td>
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<td>36</td>
<td>29.93</td>
<td>5.32</td>
<td>17</td>
<td>36</td>
<td>29.92</td>
<td>6.27</td>
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<td>26</td>
<td>9.60</td>
<td>5.44</td>
<td>2</td>
<td>31</td>
<td>13.16</td>
<td>9.06</td>
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<tr>
<td>Paternal Bonding: Paternal Overprotection</td>
<td></td>
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<td>7.93</td>
<td>3.11</td>
<td>1</td>
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<td>11.21</td>
<td>9.09</td>
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<td>9</td>
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<td>135</td>
<td>85.58</td>
<td>32.76</td>
<td>49</td>
<td>126</td>
<td>79.51</td>
<td>27.68</td>
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</tbody>
</table>

**Group Differences in Parental Bonding**

It was hypothesized that SOPCPs would rate their relationships with parents as less caring and more overprotective than Controls. Results indicated that SOPCPs rated their mothers as exhibiting the same amount of caring and over protection as Controls, as indicated by non-significant results of the t-test for caring, \( t(38) = -0.007, p = .995 \), and overprotection, \( t(37.99) = 1.55, p = .129 \). This was also true for both groups’ relationships with their fathers, as the t-tests also did not achieve significance for group differences in either caring \( t(38) = 0.451, p = .654 \), or overprotection \( t(32.15) = 1.65, p = .109 \). Although differences were not significant, both mothers and fathers of SOPCPs were rated, on
average, as less overprotective than parents of Controls, which was counter to the research hypothesis.

**Group Differences in Fear of Intimacy**

It was hypothesized that SOPCPs would endorse a higher level of fear of intimacy than Controls. Results indicated that SOPCPs’ FIS mean scores were six points higher than Controls’ (SOPCPs M=85.578; Controls M=79.510) although this difference was not statistically significant, \( t(38) = -0.627, p =.535 \).

**Group Differences in Life Satisfaction**

The hypothesis that SOPCPs would endorse lower levels of life satisfaction was not supported. There were no significant group differences between SOPCPs and Controls in relation to life satisfaction, \( t(38) = 0.658, p =.514 \), and their mean scores only differed by 1.48 points.

**Relationship Between Fear of Intimacy and Life Satisfaction**

It was hypothesized that higher levels of fear of intimacy would be correlated with lower levels of life satisfaction across groups. This hypothesis was supported for the SOPCP group, as a Pearson Product Moment Correlation indicated a significant negative correlation between fear of intimacy and life satisfaction with a large effect size, \( r(15)=-.572, p =0.026 \). This hypothesis was not supported for the Control group, as the correlation was not significant \( r(25)=-.229, p =0.271 \). When the two groups were combined for analysis, a significant negative correlation was obtained with a medium effect size \( r(40)=-0.389, p =0.013 \), indicating that as a group there was a significant relationship between increased fear of intimacy and lower life satisfaction, but that the relationship between these variables was stronger for SOPCPs.
Group Differences in Beliefs of the World and Relationships as Safe

In order to evaluate group differences on items measuring participant’s beliefs about the world and relationships as safe a Chi-Square test was utilized. It was hypothesized that SOPCPs would be less likely than Controls to endorse feeling that the world is a safe place. A Chi-Square test indicated that there were no significant differences between SOPCPs and Controls in their view of the world as a safe place $\chi^2(1, N = 40) = 0.41, p = .522$. It was also hypothesized that SOPCPs would be less likely than Controls to endorse feeling that relationships are safe. This hypothesis was supported, as significant group differences were found with a medium to large effect size, $\chi^2(1, N = 40) = 4.40, p = .036$. SOPCPs were significantly less likely to rate relationships as safe than Controls.
Discussion

Review of Findings

This study aimed to demonstrate some of the ways in which SOPCPs are impacted by the diagnosis and treatment of their siblings. Although the literature has largely found that SOPCPs adapt very well, this study sought to look at variables outside of psychopathology in order to assess if there were any impacts on SOPCPs’ parental bonding, fear of intimacy, and life satisfaction. There were no significant differences between SOPCPs and Controls on any of the measures testing these variables. Some measures, however, such as the overprotection scores of the Parental Bonding Instrument, and the FIS score appeared to differ, though not significantly. This lack of statistical significance may be due to the small sample size, and may not be reflective of the population as a whole. The lack of differences between groups in relation to life satisfaction was supported by the current literature, which posits that SOPCPs as a group demonstrate resilience. On the Life Satisfaction Scale, SOPCPs’ and Controls’ scores hardly differed, with both groups scoring in the Average to High ranges of life satisfaction. This lends credence to the assumption that SOPCPs largely adapt well following their siblings’ treatment.

This study further examined the relationship between fear of intimacy and life satisfaction, positing that when fear of intimacy in either group increased, their life satisfaction would decrease. This was true when both of the groups were combined, as well as for the SOPCP group, but was not true for the Control group when separated out. These results indicate that SOPCPs’ satisfaction in their lives may be more impacted by fear of intimacy than those who have never had a sibling with cancer. These results are
similar to those found by Thompson (2007) who found that, while SOPCPs did not receive higher FIS scores, they were more impacted by the dissolution of relationships. These combined results may highlight a vulnerability in SOPCP to having less intimacy, and at the very least highlight an area that warrants further study.

It was also hypothesized that SOPCP would deny feeling that the world, in general, is a safe place. There were no differences between SOPCPs and Controls, indicating that having had a sibling with cancer may not significantly impact college-aged students’ experience of the world as a safe place.

Finally, it was hypothesized that SOPCPs would be less likely than Controls to think of relationships as being safe. The results showed significant differences between the groups, with SOPCPs being significantly less likely to feel that relationships are safe. In fact, 36% of SOPCPs denied feeling that relationships were safe, while only 4% of Controls denied that sentiment. These results demonstrate that there is some fear of, or uncomfortability related to, relationships for SOPCPs and bolsters the idea that a small sample size might have been the reason for not finding significant group differences in scores on the FIS. It is also possible, however, that participants’ reported feelings of danger in relationships are related to something other than a fear of intimacy. Further study is needed to better understand these results, especially in conjunction with the results that SOPCPs are not more likely to view the world as unsafe. It appears that there is some impact specific to relationships for SOPCPs, though exactly what that is remains to be fully defined.
**Strengths and Limitations**

This study targeted a largely under-researched population, and evaluated variables that have had a dearth of research within this population. The study utilized psychometrically strong measures which have been well validated, and sought to find participants across the country. However, there were many limitations to this study.

The utilization of snowball and convenience sampling in this study is a limitation. Certain participants may have been more likely to complete the survey if contacted in person or via phone, but e-mails were the largest method of sampling. Siblings were largely targeted through cancer organizations, which may have excluded those siblings whose families were not involved in cancer support organizations. In addition, controls were largely sampled from university psychology departments. This type of sampling may have limited the types of controls that we were able to obtain, and may have skewed results.

This study is also limited to college-aged SOPCP and therefore cannot be generalized to older or younger SOPCP. College-aged samples have typically been utilized due to the convenience of this population, but a focus on this specific age makes results specific to college-aged SOPCP.

The study was also limited in the number of measures used. Ideally, there would have been multiple measures for each construct of interest, but given the time limits of participants this study chose to focus on shorter surveys, with the hopes that more participants could complete it. Despite the reasons behind the choice, this was likely a limitation for the study.
As previously discussed, the small sample size of this study was a large limitation. Smaller sample sizes can limit the ability to find statistical significance, and it is possible that the small sample size in this study led to the lack of statistically significant group differences in relation to FIS scores. In addition to this measure, the small sample size of this study limited the ability to control for factors such as time since the diagnosis and treatment of the SOPCPs’ sibling, type of cancer, severity of treatment, number of siblings, order of siblings, or age of either the SOPCP or the pediatric cancer patient at diagnosis. With a larger sample size, it might be possible to compare the impacts of these variables on fear of intimacy, parental bonding, and life satisfaction, but for the purposes of this study that was not possible.

**Future Directions**

The results of this study point to the need to increase understanding of the impacts of cancer on SOPCP. Future studies should focus on assessing non-diagnostic aspects of resilience and should specifically focus on the impacts of pediatric cancer on SOPCPs’ relationships. It is possible that SOPCPs’ feeling that relationships are not safe is related to the same construct that is measured in the FIS, and that the sample size of this study was simply too small to see any group differences on the FIS. Or it is possible that this feeling of danger in relationships is a different construct and another measure should be found and utilized to better understand that feeling. Either way, studies should seek to study fear of intimacy and other variables related to viewing relationships as unsafe in order to see the impacts pediatric cancer might have on these variables. In order to assess these variables, a much larger sample size should be utilized. Another way to better understand SOPCPs’ experiences in relationships would be to conduct large scale
qualitative studies which could help to better define the construct to be tested, and could shed light on this area of difficulty in SOPCP.

Future studies should also focus on completing longitudinal research on the impact of cancer on relationships and parental bonding. Without a pre-cancer rating it is impossible to say whether SOPCPs’ fear of intimacy or parental bonding changed after their sibling’s diagnosis and treatment, or if these areas remained the same. A longitudinal study would help to parse apart any changes. Studies that looked more specifically at the type of cancer, age of SOPCP and pediatric cancer patient at diagnosis, birth order of SOPCP, birth order of pediatric cancer patient, severity of treatment, and other family variables (ethnicity, SES, religious affiliation, etc.) would also be important.

**Conclusion**

This study demonstrates the need to better understand the experience of SOPCPs and the long-term impacts of their sibling’s diagnosis. Although SOPCP appear to adapt well, it is important to understand what areas of their life are impacted by their siblings’ diagnosis and treatment.

The present study highlights some possible areas of impact. Specifically, it shows that siblings are less likely to report feeling relationships are safe, and that siblings display a stronger negative relationship between their reported levels of fear of intimacy and life satisfaction than those who do not have a family history of cancer. A better understanding of these difficulties can lead to better guidance for those who provide support for SOPCPs. For example, if relationships are strongly impacted in SOPCPs, parents can be instructed to discuss these fears with SOPCPs, or support groups could focus on discussing fears related to future relationships with SOPCPs.
Given the dearth of studies looking at long-term impacts, or at non-diagnostic areas of adaption, any research at this point would add to the literature and increase our knowledge base. As children continue to be diagnosed with cancer each year, we need to continue furthering our understanding of what this diagnosis means for those children and their families.
References


Gainesville, FL: University of Florida Press.


Appendix A

Recruitment E-mail

Subject Line: Participants being sought for a research study on the impacts of having had a sibling with pediatric cancer.

Hi,
My name is Erin McCutcheon and I’m a student in Pacific University’s doctoral psychology program. I am currently working on my dissertation, which explores the impacts of having had a sibling with pediatric cancer (cancer diagnosed before the age of 18). I would like to invite you to participate in this anonymous online survey. Participants will fill in a demographic questionnaire along with three surveys. The duration of the study is expected to be 15-30 minutes and benefits for participation include providing data for understanding the long-term impacts of having had a sibling with cancer as well as being eligible to enroll in a raffle for one of two $25 Amazon gift cards.

At this time both those whose siblings have had cancer, as well as control participants (whose siblings have not had cancer) are needed.

Participation in this study is voluntary. The participant may exit out of the survey at any time. Confidentiality of information will be maintained. Please contact the researcher at mccu1373@pacificu.edu if you have any questions about this research.

You can access this survey at http://edu.surveygizmo.com/s3/1029041/Long-term-Impacts-of-Pediatric-Cancer-on-Siblings

Thank you for your consideration,
Erin McCutcheon, M.S.
Appendix B

Informed Consent

You are invited to participate in a research study on the potential relationship between having had a sibling with pediatric cancer, and developing fear of intimacy or lower life satisfaction. The project has been approved by the Pacific University IRB and will be completed by May, 2013. The results of this study will be used to inform the field of pediatric psychology, and to demonstrate areas of need for the sibling population.

Two groups will be eligible to participate in this study. For the sibling group participants must be between the ages of 18 and 24, have had a sibling with pediatric cancer (cancer before the age of 18), and have never been diagnosed with cancer. For the control group participants will be excluded if they are outside the age range of 18-24, have a history of chronic illness themselves, have an immediate family history of cancer, have no siblings, or have experienced the death of a sibling.

Upon review and approval of this informed consent, you will be asked to fill out a demographic questionnaire and three surveys. It is estimated that the time commitment for your participation will be 15-30 minutes.

It is possible that participation in this study may expose you (or an embryo or fetus, if you are or become pregnant) to currently unforeseeable risks.

Risk involved with participation in this study is minimal. It is possible that you could experience some emotional discomfort while filling out the survey. If such distress occurs, you have the option to withdraw from the study at any time without consequence. Furthermore, you have the option to contact the primary investigator Erin McCutcheon (mccu1373@pacificu.edu) to report harm incurred by participation in the study, at which point you will be referred to appropriate mental health services.

This study does not involve experimental clinical trial(s).

The IRB office will be notified by the next normal business day if minor adverse events occur (e.g., mild emotional distress) and will be handled as follows: appropriate mental health referrals will be made. The IRB office will be notified within 24 hours if major adverse events occur (e.g., severe psychological and/or emotional distress) and will be handled as follows: appropriate mental health referrals will be made. It should be noted that investigators will only be aware of adverse events if participants choose to report them to the primary investigators.

There is no direct benefit to you as a study participant.

Participants who complete the demographic questionnaire and survey will have the option of entering into a raffle for one of two $25.00 Amazon gift certificates.

Many measures will be taken to ensure your confidentiality in this study. To begin with,
no identifying information will be requested, leaving all responses to survey questions completely anonymous. However, the security of information transmitted through the internet cannot be guaranteed. This survey is administered through a personal SurveyGizmo account for which only the primary investigator (Erin McCutcheon) will have access. To ensure the highest level of confidentiality possible, your IP address will not be tracked, and all electronic data files will be password protected and stored on a password-protected laptop. Upon completion of the study, all data will be deleted from SurveyGizmo.

During your participation in this project, it is important to understand that you are not a Pacific University clinic patient or client, nor will you be receiving complete mental health care as a result of your participation in this study. If you are injured during your participation in this study and it is not due to negligence by Pacific University, the investigators, or any organization associated with the research, you should not expect to receive compensation or medical care from Pacific University, the investigators, or any organization associated with the study. Your decision whether or not to participate will not affect your current or future relations with Pacific University. If you decide to participate, you are free to not answer any question or withdraw at any time without prejudice or negative consequences. If you choose to withdraw after beginning the study, any data you have already provided will be used unless you explicitly contact one of the investigators and request the data to be removed. In such an event, the investigators will do their best to remove any data you provided.

The researcher(s) will be happy to answer any questions you may have at any time during the course of the study. If you are not satisfied with the answers you receive, please call Pacific University's Institutional Review Board, at (503) 352-1478 to discuss your questions or concerns further. If you become injured in some way and feel it is related to your participation in this study, please contact the investigators and/or the IRB office. All concerns and questions will be kept in confidence.
Appendix C

Demographic Questionnaire

1) How old are you?

____________________________________________

2) How would you describe your ethnicity?
   [ ] American Indian / Native American
   [ ] Asian
   [ ] Black / African American
   [ ] Hispanic / Latino
   [ ] White / Caucasian
   [ ] Pacific Islander
   [ ] Other

3) How would you describe your gender?
   ( ) Male
   ( ) Female
   ( ) Other

4) Please describe your gender.

____________________________________________

5) Do you have any siblings?
   ( ) Yes
   ( ) No

6) Please report the gender and ages of your siblings.*

____________________________________________

7) Has your sibling ever been diagnosed and treated for pediatric cancer (cancer occurring before the age of 18)?
   ( ) Yes
   ( ) No

8) How old was your sibling at the time of diagnosis?

____________________________________________

9) How old were YOU at the time of your sibling's diagnosis?

____________________________________________

10) What type of cancer did your sibling have?

____________________________________________
11) What stage was your sibling's cancer at diagnosis?
( ) Stage 1
( ) Stage 2
( ) Stage 3
( ) Stage 4
( ) I do not know
( ) Other

12) Please describe your sibling's stage of cancer.
____________________________________________

13) How long did your sibling undergo treatment?
____________________________________________

14) Did your sibling survive treatment?
( ) Yes
( ) No

15) How long has your sibling been in remission?
____________________________________________

16) Do you feel that your family handled your sibling's diagnosis and treatment appropriately?
( ) Yes
( ) No

17) Please describe how your family handled your sibling's diagnosis and treatment.

18) Has anyone else in your immediate family (not a sibling) been diagnosed with cancer?
( ) Yes
( ) No

19) Who in your immediate family was diagnosed with cancer?
____________________________________________

20) What type of cancer did that family member have?
____________________________________________

21) Have you even been diagnosed with a chronic illness?
( ) Yes
( ) No

22) What type of chronic illness were you diagnosed with?
23) If you answered "other" what chronic illness have you been diagnosed with?
____________________________________________

24) Have you ever had a committed romantic relationship?
( ) Yes
( ) No

25) Are you currently in a committed romantic relationship?
( ) Yes
( ) No

26) How many committed romantic relationships have you had?
____________________________________________

27) How long did your longest romantic relationship last?
____________________________________________

28) In general have you been satisfied with your romantic relationships?
( ) Yes
( ) No

29) Are your parents married or in a committed relationship with each other?
( ) Yes
( ) No

30) How old were you when your parents divorced/separated?
____________________________________________

31) Was your parents divorce/separation mostly amicable?
( ) Yes
( ) No

32) In your opinion have you ever been physically, sexually, or emotionally abused?
Please mark all that apply.
[ ] Physically
[ ] Sexually
[ ] Emotionally
[ ] I did not experience abuse.
33) Have you ever experienced any other traumas?
   ( ) Yes
   ( ) No

34) If comfortable, please describe your trauma.

35) Have you ever sought mental health services?
   ( ) Yes
   ( ) No

36) For what did you seek mental health services?
   [ ] Anxiety
   [ ] Depression
   [ ] Relationship Issues
   [ ] Other

37) Please describe your "other" reasons for seeking mental health services.

38) Even if you have not sought mental health services in the past year have you felt long periods (greater than 2 weeks) of sadness or anxiety which you felt were excessive?
   ( ) Yes
   ( ) No

39) Do you feel that, in general, the world is a safe place?
   ( ) Yes
   ( ) No

40) Do you feel that, in general, romantic relationships are safe?
   ( ) Yes
   ( ) No
Appendix D

Parental Bonding Instrument
(Parker, Tupling, & Brown, 1979)

This page lists various attitudes and behaviors of parents. As you remember your MOTHER in your first 16 years respond to how much each statement is like her.

1) Spoke to me in a warm and friendly voice
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

2) Did not help me as much as needed:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

3) Let me do those things I liked doing:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

4) Seemed emotionally cold to me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

5) Appeared to understand my problems and worries:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

6) Was affectionate to me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

7) Liked me to make my own decisions:
8) Did not want me to grow up:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

9) Tried to control everything I did:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

10) Invaded my privacy:
    ( ) Very like
    ( ) Moderately like
    ( ) Moderately unlike
    ( ) Very unlike

11) Enjoyed talking things over with me:
    ( ) Very like
    ( ) Moderately like
    ( ) Moderately unlike
    ( ) Very unlike

12) Frequently smiled at me:
    ( ) Very like
    ( ) Moderately like
    ( ) Moderately unlike
    ( ) Very unlike

13) Tended to baby me:
    ( ) Very like
    ( ) Moderately like
    ( ) Moderately unlike
    ( ) Very unlike

14) Did not seem to understand what I needed or wanted:
    ( ) Very like
    ( ) Moderately like
    ( ) Moderately unlike
    ( ) Very unlike
15) Let me decide things for myself:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

16) Made me feel I wasn't wanted:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

17) Could make me feel better when I was upset:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

18) Did not talk with me very much:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

19) Tried to make me feel dependent on her:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

20) Felt I could not look after myself unless she was around:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

21) Gave me as much freedom as I wanted:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike

22) Let me go out as often as I wanted:
( ) Very like
( ) Moderately like
( ) Moderately unlike
( ) Very unlike
23) **Was overprotective of me:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

24) **Did not praise me:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

25) **Let me dress in any way I pleased:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

---

This page lists various attitudes and behaviors of parents. As you remember your FATHER in your first 16 years respond to how much each statement is like him.

1) **Spoke to me in a warm and friendly voice**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

2) **Did not help me as much as needed:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

3) **Let me do those things I liked doing:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
   - ( ) Very unlike

4) **Seemed emotionally cold to me:**
   - ( ) Very like
   - ( ) Moderately like
   - ( ) Moderately unlike
5) Appeared to understand my problems and worries:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

6) Was affectionate to me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

7) Liked me to make my own decisions:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

8) Did not want me to grow up:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

9) Tried to control everything I did:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

10) Invaded my privacy:
    ( ) Very like
     ( ) Moderately like
     ( ) Moderately unlike
     ( ) Very unlike

11) Enjoyed talking things over with me:
    ( ) Very like
     ( ) Moderately like
     ( ) Moderately unlike
     ( ) Very unlike

12) Frequently smiled at me:
    ( ) Very like
     ( ) Moderately like
13) Tended to baby me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

14) Did not seem to understand what I needed or wanted:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

15) Let me decide things for myself:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

16) Made me feel I wasn't wanted:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

17) Could make me feel better when I was upset:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

18) Did not talk with me very much:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

19) Tried to make me feel dependent on her:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

20) Felt I could not look after myself unless she was around:
   ( ) Very like
21) Gave me as much freedom as I wanted:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

22) Let me go out as often as I wanted:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

23) Was overprotective of me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

24) Did not praise me:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike

25) Let me dress in any way I pleased:
   ( ) Very like
   ( ) Moderately like
   ( ) Moderately unlike
   ( ) Very unlike
Appendix E

Fear of Intimacy Scale

(Descutner & Thelen, 1991)

IMAGINE you are in a close, dating relationship. Respond to the following statements as you would if you were in that close relationship. Rate how characteristic each statement is of you.
Note. In each statement "O" refers to the person who would be in the close relationship with you.

1) I would feel uncomfortable telling O about things in the past that I'm ashamed of.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

2) I would feel uneasy talking with O about something that has hurt me deeply.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

3) I would feel comfortable expressing my true feelings to O.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

4) If O were upset I would sometimes be afraid of showing that I care.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

5) I might be afraid to confide my innermost feelings to O.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
6) I would feel at ease telling 0 that I care about him/her.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

7) I would have a feeling of complete togetherness with 0.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

8) I would be comfortable discussing significant problems with 0.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

9) A part of me would be afraid to make a long-term commitment to 0.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

10) I would feel comfortable telling my experiences, even sad ones, to 0.
    ( ) Not at all characteristic of me.
    ( ) Slightly characteristic of me.
    ( ) Moderately characteristic of me.
    ( ) Very characteristic of me.
    ( ) Extremely characteristic of me.

11) I would probably feel nervous showing 0 strong feelings of affection.
    ( ) Not at all characteristic of me.
    ( ) Slightly characteristic of me.
    ( ) Moderately characteristic of me.
    ( ) Very characteristic of me.
    ( ) Extremely characteristic of me.

12) I would find it difficult being open with 0 about my personal thoughts.
    ( ) Not at all characteristic of me.
    ( ) Slightly characteristic of me.
13) I would feel uneasy with 0 depending on me for emotional support.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

14) I would not be afraid to share with 0 what I dislike about myself.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

15) I would be afraid to take the risk of being hurt in order to establish a closer relationship with 0.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

16) I would feel comfortable keeping personal information to myself.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

17) I would not be nervous about being spontaneous with 0.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

18) I would feel comfortable telling 0 things I do not tell other people.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.
19) I would feel comfortable trusting 0 with my deepest thoughts and feelings.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

20) I would sometimes feel uneasy if 0 told me about very personal matters.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

21) I would be comfortable revealing to 0 what I feel are my shortcomings and
    handicaps.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

22) I would be comfortable with having a close emotional tie between us.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

23) I would be afraid of sharing my private thoughts with 0.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

24) I would be afraid that I might not always feel close to 0.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

25) I would be comfortable telling 0 what my needs are.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
26) I would be afraid that 0 would be more invested in the relationship than I would be.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

27) I would feel comfortable about having open and honest communication with 0.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

28) I would sometimes feel uncomfortable listening to 0's personal problems.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

29) I would feel at ease to completely be myself around 0.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

30) I would feel relaxed being together and talking about our personal goals.
( ) Not at all characteristic of me.
( ) Slightly characteristic of me.
( ) Moderately characteristic of me.
( ) Very characteristic of me.
( ) Extremely characteristic of me.

31) I have shied away from opportunities to be close to someone.
( ) Not at all characteristic of me.
32) I have held back my feelings in previous relationships.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

33) There are people who think that I am afraid to get close to them.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

34) There are people who think that I am not an easy person to get to know.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.

35) I have done some things in previous relationships to keep me from developing
closeness.
   ( ) Not at all characteristic of me.
   ( ) Slightly characteristic of me.
   ( ) Moderately characteristic of me.
   ( ) Very characteristic of me.
   ( ) Extremely characteristic of me.
Appendix F

Satisfaction With Life Scale

(Pavot & Diener, 1992)

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by choosing the appropriate number for that item. Please be open and honest in your responding.

1) In most ways my life is close to my ideal:
   ( ) Strongly disagree
   ( ) Disagree
   ( ) Slightly disagree
   ( ) Neither agree nor disagree
   ( ) Slightly agree
   ( ) Agree
   ( ) Strongly agree

2) The conditions of my life are excellent:
   ( ) Strongly disagree
   ( ) Disagree
   ( ) Slightly disagree
   ( ) Neither agree nor disagree
   ( ) Slightly agree
   ( ) Agree
   ( ) Strongly agree

3) I am satisfied with my life:
   ( ) Strongly disagree
   ( ) Disagree
   ( ) Slightly disagree
   ( ) Neither agree nor disagree
   ( ) Slightly agree
   ( ) Agree
   ( ) Strongly agree

4) So far I have gotten the important things I want in life:
   ( ) Strongly disagree
   ( ) Disagree
   ( ) Slightly disagree
   ( ) Neither agree nor disagree
   ( ) Slightly agree
   ( ) Agree
   ( ) Strongly agree
5) If I could live my life over, I would change almost nothing:

( ) Strongly disagree
( ) Disagree
( ) Slightly disagree
( ) Neither agree nor disagree
( ) Slightly agree
( ) Agree
( ) Strongly agree