Spring 5-2017

Self-Efficacy in Offspring of Mentally Ill Parents

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ABSTRACT

The subjective experiences of offspring of mentally ill parents have resulted in the development and absence of various components of well-being. However, there are very few studies examining levels of self-efficacy as a component of well-being within offspring of mentally ill parents. Given the evidence of lower levels of resiliency among offspring of mentally ill parents, this study proposed to evaluate the relationship between self-efficacy and offspring of mentally ill parents. Two-hundred and fifty-seven students in an introductory psychology course completed two measures assessing self-efficacy and resiliency. Among the 257 students, 27 identified with a mentally ill parent. It was hypothesized that levels of self-efficacy and resiliency would be lower among offspring of mentally ill parents than offspring with mentally healthy parents. It was also hypothesized that a statistically significant positive correlation would be observed for self-efficacy with resiliency. Additionally, it was predicted that a statistically significant negative correlation would be observed for self-efficacy with the number of years lived with a mentally ill parent and the impact of a mentally ill parent. An independent samples t-test, along with one-tailed correlations were computed to test hypotheses. With regard to both self-efficacy and resiliency, results did not show a significant difference between offspring with mentally ill parents in comparison to those with mentally healthy parents. Self-efficacy showed a significant positive correlation with resiliency as predicted; however, no significant correlation for self-efficacy with the number of years lived with a mentally ill parent nor the impact of a mentally ill parent was observed.

Self-Efficacy in Offspring of Mentally Ill Parents

A Thesis

Presented to

The Faculty of the Graduate School

Abilene Christian University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science

In Psychology

By

Craig Motsenbocker

May 2017

This thesis, directed and approved by the candidate's, Craig Motsenbocker's committee, has been accepted by the Graduate Council of Abilene Christian University in partial fulfillment of the requirements for the degree

Master of Science

Assistant Provost of Graduate Programs

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I would like to dedicate my thesis to three individuals that understand me best, have given me reason, and taught me some of the most important lessons yet. My siblings, Crystal, Valarie, and Jacob.

Our childhood circumstances were daunting, and at one point or another each of you felt as if you were alone. Prior to beginning this research, I mistakenly agreed. The truth is, we are not alone in our experiences. Multitudes of stories exist that are similar to ours. I hope you may find comfort in this discovery as I have.

I initially felt guilty about leaving home to distance myself from our circumstances; however, through this distance I have come to realize we have the opportunity to rewrite the script we were given. I have not only found appreciation for our adversity, but have reached a greater depth of understanding. I encourage each one of you to understand and rewrite the script as well.

ACKNOWLEDGEMENTS

I would like to thank the members of my thesis committee for your support and guidance. This support and guidance has not been confined to this study. Rather, each one of you, along with other ACU Psychology professors, has taught me lessons that go beyond academia. As I reflect upon my two-year journey at ACU, I embrace the positive impact each professor has had upon my life. To my friends and family, your patience, encouragement, and support were much needed throughout this process. I am grateful for every one of you.

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CHAPTER 1

LITERATURE REVIEW

Offspring of mentally ill parents are two to thirteen times more likely to develop psychopathology than their counterparts with mentally healthy parents (Van Santvoort, Hosman, Van Doesum, & Jansssens, 2014). In fact, some offspring display maladjustment in communication styles as early as infancy when interacting with their depressed mother (Væver, Krogh, Smith-Nielsen, Christensen, & Tharner, 2015). Maladjustment has also been displayed at primary school age (Downey & Coyne, 1990; Hosman, Van Doesum, & Van Santvoort, 2009; Van Santvoort et al., 2014). Mental illness can cover a wide range of disorders, including but not limited to categories of anxiety, depression, neurodevelopmental, personality, and addictive disorders. As for offspring of mentally ill parents, the risk factors for developing psychopathology are not confined to genetic heritability and dysfunctional biological processes, but also to psychosocial mechanisms (Van Santvoort et al., 2014). The components of influential psychosocial mechanism may include the child's exposure to the cognitions, behaviors, and affect of the mentally ill parent (Van Santvoort et al., 2014). Alternatively, offspring of mentally ill parents are able to demonstrate resilience-related qualities when they acquire a deeper understanding of their parent's mental illness (Knutsson-Medin, Edlund, & Ramklint, 2007).

Negative Effects of Mentally Ill Parents

Impact on Family

A diagnosis of a mental disorder implies a required adjustment not only for the individual receiving the diagnosis, but the family members of the individual as well (Delmas, Proudfoot, Parker, & Manicavasagar, 2011). Family members have been shown to react negatively to the presence of mental illness within the family, as the additional amount of caregiving that is required among family members of mentally ill parents detracts from the amount of time spent engaging in self-care (Horwitz, 1996). This may lead to negative physical health outcomes as a result of increased stress (Gallagher & Mechanic, 1996). Aside from a diagnosis' psychological effects, increased hassles and stressors of daily living increase negative physiological outcomes (Kanner, Coyne, Schaefer, & Lazarus, 1981; Kiecolt-Glaser, Malarkey, Chee, Newton, Cacioppo, Mao, & Glaser, 1993; Kinney & Stephens, 1989; Lazarus & Folkman, 1984). In this particular context, the increased hassles and stressors of daily life are referred to as the subjective burden experienced by family members of a mentally ill parent. Kiecolt-Glaser et al. (1993), suggest that burdensome behavior suppresses healthy immune functioning, thus supporting the notion that increased distress effects health indirectly. As a result, empirical support exists for a link between family members who live with a mentally ill parent presenting in increased risk for more frequent illness and poorer general physical health (Gallagher & Mechanic, 1996).

Impact on Offspring

Evidence from the recorded experiences of offspring of mentally ill parents suggests such offspring present with distinct emotional and behavioral problems, as well as a lower level of social competence (Knutsson-Medin et al., 2007; Larsson, Knutsson-Medin, & Sundelin, 2000). Accompanying these characteristics of offspring of mentally ill parents are experiences of guilt, loneliness, and shame (Beardslee & Podorefsky 1988; Hinshaw, 2004; Van Santvoort et al., 2014). In addition, there is negative mood, fear of conflicts, feeling of abandonment, insecurity, insufficiency, fear, deceit, lack of confidence, anger, as well as envy towards peers who have normally functioning parents (Knutsson-Medin et al., 2007). This broad range of subjective negative emotions is especially experienced when the mentally ill parent frequently spends time in a mental hospital (Van Santvoort et al., 2013).

In addition, burden is a common feeling shared among offspring when their mentally ill parent spends a considerable amount of time at home. (Horwitz, Reinhard, & Howell-White, 1996). Within this context, burden refers to the objective and subjective burdens regarding care for the parent. Subjective burden is defined as the mental pain and cognitions regarding the experience of living with a mentally ill parent (Ohara, Komaki, Yamagata, Hotta, Kamo, & Ando, 2016). Studies have demonstrated that the level of subjective burden experiences by a family member is correlated with the level of impairment of the family member with the mental illness (Platt, 1985; Hasui, Sakamoto, Sugiura, Miyata, Fujii, Koshiishi, & Kitamura, 2002).

Offspring of parents with mental illness, such as schizophrenia, bipolar disorder, and major depressive disorder, have a 32% probability of developing a severe mental

illness (Rasic, Hajek, Alda, & Uher, 2014). Offspring of parents with severe mental illness (SMI) that do develop a SMI are not confined to developing the same disorder as their parent (Rasic et al., 2014). Parents with SMI display a range of symptoms from depressive symptoms to mania, and their children are exposed to such symptoms for an extended period, thus affecting emotions and behaviors in multiple directions (Rasic et al., 2014). For the 68% of offspring whom do not develop a SMI, ways in which they effectively cope is worth exploring (Sherman, 2007).

Causes of Maladjustment

Parenting Styles and Maladjustment

Special attention should be directed toward the development of psychopathology and negative affects among children of mentally ill parents in particular circumstances. Depending on the severity of the parent's disorder, parent hospitalization is a common occurrence. (Knutsson-Medin et al., 2007). When hospitalization occurs, parent-child interaction is reduced. Poor-parent child interaction has been correlated with problem development among children (Van Santvoort et al., 2013). Additional factors that may result from the experience of a parent with mental illness include poverty, lack of social support, and abuse (Menard, Bandeen-Roche, Chilcoat, 2004; Dixon, Browne, & Hamilton-Giachritsis, 2005; Sidebotham, Heron, & the ALSPAC Study Team, 2006; Khan & Hanif, 2014).

Since direct links have been established between parenting practices and child outcomes, it is imperative to examine the parenting styles of those with a mental disorder on a child's maladjustment (Easterbrooks & Graham, 1999; Frick et al., 1999; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994). Ineffective or uncaring parenting has

been supported as a powerful predictor of adult failure in multiple domains (Doll & Lyon, 1998; Prevatt, 2003). For example, parenting styles of those with bipolar disorder have been correlated with levels of disturbance in offspring (Calam, Jones, Sanders, Dempsey, & Sadhnani, 2012). More specifically, as parent well-being and stability decreases, child emotional difficulty increased (Calam et al., 2012). Similarly, offspring of unengaged parents lack in self-regulation skills, social skills, and cognitive competence (Baumrind, 1992). According to Baumrind, a parent who does not act as an active agent in the child's life, known as a permissive parent, contributes to the child's poor emotion regulation and low persistence to challenging tasks. On the other hand, an adequate amount of parental involvement weakens the negative effects of having a parent with a mental illness (Brennan, Le Brozque, & Hammen, 2003; Foster, Garber, & Durlak, 2008; Van Santvoort, 2013).

Nonetheless, parental distress, a factor within parenting style, is correlated with a child's well-being within high-risk environments (Forehand, Thomas, Wierson, Brody, & Fauber, 1990; Dutra, Forehand, Armistead, Brody, Morse, Morse, & Clark, 2000). Parental well-being is a crucial component of parent-child interactions and child well-being (Newland, 2015). Existing evidence supports a significant, inverse relationship between parenting and childhood emotional difficulties, as well as an inverse relationship between parental stability and child behavioral difficulty (Calam et al., 2012). It is evident that parenting styles of those with mental illness have the potential for a significantly negative effect on children's emotional disturbance.

Parentification and Maladjustment

While the direct impact of living with a mentally ill parent remains empirically supported in regard to heritability and lack of parental support, social adversity may be more influential (Rutter, 1989; Hall, 2004). Components of the social adversity offspring of mentally ill parents face include but are not limited to the inability to maintain close friendships, excessive guilt, negative self-concept, poor cognitive development, and learning disabilities (Gladstone, Boydell, & McKeever, 2006). A component of particular significance is level of caregiving, where a high level of caregiving leads to burden (Dechillo, Matorin, & Hallahan, 1987). During childhood being asked to engage in excess amounts of caregiving at an inappropriate age, or "parentification" (Gladstone et al., 2006), may lead to pathological effects in which children's needs are replaced by the needs of the parent (Chase, 1999). Numerous studies provide support for the correlation between childhood parentification and a risk factor for adult psychopathology (Jacobvitz & Bush, 1996; Katz, Petracca, & Rabinowitz, 2009; Shiften & Kachorek, 2003).

Positive Effects of Mentally Ill Parents

Impact on Offspring

Despite the difficulties and additional roles children of mentally ill parents must adapt to, positive developments have also been observed (Polkki, Ervast, & Huupponen, 2004). Positive coping skills develop as a buffer to the adverse effects of living with a mentally ill parent. For example, children raised in traumatic circumstances have demonstrated the ability to develop coping strategies, special talents, creativity, and spirituality as a way to adapt to their negative experiences (Cook, Spinazzola, Ford, Lanktree, Blaustein, Cloitre, DeRosa, Hubbard, Kagan, Liautaud, Mallah, Olafson, van

der Kolk, 2005). These coping strategies may include developing a hobby, furthering social support, and the practice of separating oneself from the emotional experiences of the parent (Beardslee & Podorefsky, 1988; Solantaus & Beardslee, 1996; Polkki et al., 2004). Children of mentally ill parents are typically required to engage in caretaker roles due to the lack of involvement on behalf of the mentally ill parent (Aldridge & Becker, 1995). As a result of the caretaking role, advanced maturity and positive coping have been noted among offspring of mentally ill parents (Polkki et al., 2004).

In a more specific context, studies pertaining to risk and resiliency have consistently demonstrated that children raised in adverse circumstances have the potential to become well-functioning adults (Doll & Lyon, 1998; Prevatt, 2003). Distinguishable levels of resiliency are present among children of mentally ill parents, who might otherwise be considered high-risk individuals (Knuttson-Medin et al., 2007; Rutter, 1985). Positive psychosocial components have been shown to have a strong impact on the risk for psychopathology (Knutsson-Medin et al., 2007). If the ability to adjust well despite prolonged, negative familial circumstances is present among children of mentally ill parents, factors that contribute to a healthy development are important to explore.

Protective Factors

Parentification as a Protective Factor

Parentification may also be seen as a protective factor rather than a source of risk (Van Parys, Bonnewyn, Hooghe, De Mol, & Rober, 2015). Mordoch and Hall (2008) suggest that some adolescents utilized their caregiving role as a way to protect themselves from the negative emotional impact from the parent's condition. In other words, taking care of the family in response to the lack of care from the parent allow

some children to create a distance from personal feelings of distress (Van Parys et al., 2015).

Autonomy as a Protective Factor

Furthermore, self-esteem, social competence, and general optimism have been suggested as offspring protective factors that may minimize the adverse effects of living with a mentally ill parent (Pretis & Dimova, 2008). Children that emphasized inner growth and learning in areas of self-esteem, social competence, and other social skills while living with the mentally ill parent typically fared well in their adult lives (Polkki et al., 2004). Pearlin and Schooler (1978), suggest that the offspring able to positively adapt despite their adversity actively responded to their family's negative circumstances. This suggests that children who did not actively respond to their parent's illness were unable to develop the necessary social competence to overcome their adversity. The development of social competence as a protective factor encompasses other factors, such as resiliency and self-efficacy (Hamill, 2003).

Resiliency and Self-Efficacy in Families with Mentally Ill Parents

Resiliency

Resiliency is defined as the process of, capacity for, or outcome of successful adaptation despite adverse circumstances (Masten, Best, & Garmezy, 1990). Research has established the development of enduring coping patterns and behavior for family members of someone with a severe mental illness (Rasic et al., 2014). Consequently, resiliency can be a potential outcome among those living with a mentally ill family member (Marsh, Lefley, Evans-Rhodes, & Ansell, 1996).

The development of resiliency has been linked to a foundation of an enduringly supportive relationship between the child and a parent or caregiver (Radke-Yarrow & Brown, 1993). Social support and personality attributes such as hardiness (King, Foy, Keane, & Fiarbank, 1999), optimism, regular exercise, positive role models, and positive coping styles (Southwick, Vythilingham, & Charney, 2005) are considered as important factors in the consideration of resiliency. On the other hand, supported risk factors for poor resilience include but are not limited to lack of social support, poor financial circumstances, poor health, low quality of life, and feelings of helplessness (Craig, in press; Rutter, 1985; Southwick et al., 2005).

Parents with mental disorders have been shown to utilize poor coping strategies such as drug and alcohol use, thereby demonstrating a lack of resiliency in the midst of their daily challenges stemming from their mental health (Nicholson, Sweeney, & Geller, 1998). On the other hand, parents that are able to function well may also engage in developmental parenting behaviors such as affection, responsiveness, encouragement, teaching, engagement, and discipline (Newland, 2015). Parents who are able to function well and thereby maintain a positive parent-child relationship are able to promote resiliency within their offspring (Dutra et al., 2000).

An alternate definition of resilience has been suggested (Fraser & Pakenham, 2009), in which it is conceptualized as the process by which the detrimental effects of risk factors are mediated or removed by protective factors. Such protective factors include healthy parenting behaviors as previously discussed. A risk/resilience continuum has been posited for individuals who maintain a risk of developing a mental illness versus individuals who are able to remain distinctively resilient (Beardslee, Versage, &

Gladstone, 1998; Hall, 2004; Rutter, 1989; Rutter, 1990; Smith, 2004). Contributions to where children fare on the risk/resilience continuum include the quality of their childhood, with more difficult childhoods associated with increased risk and lower resilience. However, children who had difficult childhoods have been noted to become socially accomplished and master obstacles (Bleuler, 1978).

Self-Efficacy

In addition to resiliency, self-efficacy has been supported as an adaptive coping mechanism in dealing with the negative effects of negative circumstances (Hamill, 2003). Self-efficacy is defined as one's belief about his or her capability to perform behaviors necessary to produce specific outcomes (Bandura, 1998). The examination of self-efficacy is important as self-efficacy contributes to one's well-being and sense of autonomy (Bandura, 1998). More specifically, offspring of parents with SMI may present with strong sense of autonomy and well-being in order to decrease risk of developing an SMI themselves (Rasic et al., 2014).

In regard to having a mentally ill parent, self-efficacy describes one's sense of personal control or confidence in handling the negative circumstances (Solomon & Draine, 1995). Children who present with a higher amount of confidence in handling adversity than their counterparts were able to decrease the amount of experienced subjective burden (Solomon & Draine, 1995). Underlying factors contribute to a greater sense of self-efficacy when dealing with a mentally ill parent. For example, family members who were able to act as partners viewed themselves separately from the family member's illness, as well as those who felt instrumental in the family member's intervention presented with higher self-efficacy (Abramowitz & Coursey, 1989; Solomon

& Draine, 1995; Zipple & Spaniol, 1987). Individuals who were able to develop self-efficacy felt as if they retained a sense of control over their life (Hamill, 2003).

Control beliefs have been empirically supported as successful adaptations to contexts of adversity such as living with a mentally ill parent (Aspinwall & Richter, 1999; Hamill, 2003). In fact, the development of internal resources related to self-efficacy beliefs have been linked to the development of other coping mechanisms (Saarni, 1999; Hamill; 2003). Self-efficacious beliefs have been supported as a determining factor in how well offspring cope in persistently adverse situations. Alternatively, those who feel as if they have little control (lower self-efficacy) in response to their parent's mental illness deal with greater amounts of self-doubt and anxiety (Schwarzer & Warner, 2013). Bandura (1994) suggests that those who have disbelief in their capabilities face the consequences of behavioral validation, that is, low self-efficacy. In this case, the presentation of low self-efficacy prevents one from actively responding to their adversity, thereby decreasing the development of effective coping skills.

Current Study

Research has demonstrated that the risk for development of psychopathology is elevated more than four times in offspring of mentally ill parents in comparison to those from mentally healthy parents (Beardslee, 2002; Beardslee, Gladstone, Wright, & Cooper, 2003). Relatedly, the ability to provide supportive and healthy parenting is jeopardized when a parent presents with a mental illness (Newland, 2015). Thus, it is important to identify additional factors that influence the development of psychopathology within offspring of mentally ill parents.

While there is support for negative outcomes such as increased emotional disturbance and increased family burden, it is possible to simultaneously encounter positive outcomes and protective factors for offspring such as resiliency (Delmas et al., 2011). It is equally as important to identify the protective factors that impede development of psychopathology within offspring of mentally ill parents. Although resiliency has been reported among offspring of mentally ill parents, there are few studies examining self-efficacy within this context. For the purposes of this study, self-efficacy was conceptualized as an additional positive development in the midst of such adverse circumstances (Hamill, 2003). Offspring of mentally ill parents may develop a strong sense of self-efficacy as they learn to effectively cope with the family burden of a mental disorder (Marsh, Lefley, Evans-Rhodes, Ansell, Doerzbacher, LaBarbera, & Paluzzi, 1996). The development of self-efficacy may be the critical piece in the fostering subsequent resiliency.

While protective factors for psychopathology development have been explored in the areas of bereavement (Coifman & Bonanno, 2010), as well as posttraumatic stress disorder (King et al., 1999), exploration in the area of family psychopathology is still lacking. Consequently, the aim of this study was to assess the levels of self-efficacy and resiliency in offspring of mentally ill parents in comparison to those with mentally healthy parents. Overall, it was predicted that levels of self-efficacy and resiliency would be lower among offspring of mentally ill parents than offspring with mentally healthy parents. It was also hypothesized that a statistically significant positive correlation would be observed between self-efficacy and resiliency. Additionally, it was predicted that a statistically significant negative correlation would be observed between self-efficacy and

the number of years lived with a mentally ill parent and the impact of a mentally ill parent. Such associations, should they be observed, may provide insight as to how self-efficacy and resilience develops, or fail to develop, among the children of mentally ill parents.

CHAPTER II

METHODOLOGY

Participants

The participants in this study were 257 undergraduate students recruited through an undergraduate, Introduction to Psychology course at Abilene Christian University. Of these participants, 98 reported that they were male and 157 female. Six identified their ethnicity as other, 8 as Asian, 12 as Biracial, 33 as African American, 40 as Hispanic, and 156 as Caucasian. The average reported age of participants was 19.3 years

Twenty-seven students reported that at least one of their parents has a diagnosed mental illness. Participants who identified a parent with a mental illness reported which parent has a mental illness (biological father, biological mother, stepmother, or stepfather). In regard to the parent's specific diagnosis, no exclusion criteria were applied. Parental mental illness was based on the participants' report. In addition to the preliminary questions, participants were asked to complete two questionnaires measuring resiliency and self-efficacy.

Measures

First, participants completed a set of preliminary questions (Appendix C) designed to assess the experience of living with a parent with mental illness Two self-

report measures were used in the current study. These included the Connor-Davidson Resilience Scale 25 and the General Self-Efficacy Scale. Both of these have been widely used and statistically validated.

Generalized Self-Efficacy Scale (GSE)

The GSE was developed to assess self- efficacy, or the belief that one's actions are responsible for successful outcomes (Jerusalem & Schwarzer, 1981). Jerusalem and Schwarzer (1981) specifically focused on the ability to cope with daily hassles as well as adaptation to negative life events. The scale is designed for the general adult population, including adolescents over age 12. The GSE is a 10-item scale, with scaled score ranges from 1-4 ("Not at all true, hardly true, moderately true, and exactly true"). The total score is the sum of responses from all ten items yielding a composite score with a range between 10 and 40. Higher scores reflect a stronger degree of self-efficacy. The scale requires an average of four minutes to complete. Cronbach alpha ranges from .75 to .94 across 23 nations (Jerusalem & Schwarzer, 1981). The majority of the Cronbach alphas fell in the .80s. The scale is uni-dimensional. Criterion-related validity is supported in that the scale positively correlated with favorable emotions, dispositional optimism, and work satisfaction. The scale negatively correlated with depression, anxiety, stress, burnout, and health complaints.

Connor-Davidson Resilience Scale 25 (CD-RISC-25)

The CD-RISC-25 (Davidson & Connor, 2016) was developed as an instrument designed as a self-rating scale in order to measure resilience. The scale is uni-dimensional. The authors state that the 25-iteam scale provides a consistent tool for the measurement of resilience levels (Davidson & Connor, 2016). The CD-RISC-25 is a psychometrically sound measure of overall resilience in emerging adulthood (Madewell & Ponce-Garcia, 2016).

Although several scales measure aspects of resilience, the CD-RISC-25 is the first of its kind to relate to clinical practice. In the first validation study, Davidson and Connor (2016), found the following mean scores within specific populations: 80.7 for the US general population, 71.8 for primary care patients, 68.0 for psychiatric outpatients, 62.4 for Generalized Anxiety, as well as 47.8 and 52.8 for two Post Traumatic Stress Disorder samples. Additionally, the authors of the scale have utilized content from several sources that correlate with patience, the ability to endure stress or pain, adaptability, social problem solving skills, previous experiences of success, control, commitment, and change (Bezdjian, Schneider, Burchett, Baker, & Garb; Connor & Davidson, 2003). Connor and Davidson (2003) supported adequate test-retest reliability of .87, and strong internal consistency ($\alpha = .89$) (Bezdjian et al., 2003). Each of the items is rated on a 5-point scale, ranging from 0 = not true at all to 4 = true nearly all the time, with a higher total score supporting greater resilience.

Procedure

Participants were recruited from the Introduction to Psychology course, where the course instructor presented the opportunity to enrolled students. Students who chose to participate were provided with a link to an electronic survey. Prior to beginning the survey, participants were provided with informed consent, which was then followed with the statement, “Please click the button below if you voluntarily agree to participate in this study. Click only after you have read all of the information provided and your questions have been answered to your satisfaction. If you wish to have a copy of this consent form, you may print it now. You do not waive any legal rights by consenting to this study. I consent to participate in the research study.” Consenting participants were asked to

answer a set of preliminary questions to make a distinction between participants who identified with a parent(s) with mental illness and those without a parent with mental illness. Both groups of participants were asked to complete two questionnaires measuring self-efficacy and resiliency.

Participants were awarded extra credit upon completion of the survey. Following completion, data was entered in Statistical Package for the Social Sciences (SPSS; IBM, 2013) and scale scores were arranged for statistical analysis. The project was approved by and conducted under the authority of the Institutional Review Board of Abilene Christian University.

CHAPTER III

RESULTS

Parents with Mental Illness

Overall, 27 students identified having a mentally ill parent(s). The average number of years lived with a mentally ill parent was 16.29 years, and the standard deviation was 5.85. The average impact of mental illness upon offspring with a mentally ill parent was 41.40, and the standard deviation was 23.92. A diagnosis breakdown regarding parental diagnoses provided by the students can be found in Table 1.

Table 1

Diagnosis Breakdown of Parents with Mental Illness

Diagnosis Breakdown:	N
Schizophrenia Spectrum/Other Psychotic Disorder	1
Bipolar Disorder	13
Depressive Disorder	13
Anxiety Disorder	11
Obsessive-Compulsive and Related Disorder	2
Trauma and Stressor-Related Disorder	2
Substance Use/Addictive Disorder	7
Other	2

Effect of Living with a Parent with Mental Illness Upon Self-efficacy

The goal of this analysis was to compare levels of self-efficacy between offspring of mentally ill parents and offspring of mentally healthy parents. It was hypothesized that levels of self-efficacy would be lower among offspring of mentally ill parents than offspring of mentally healthy parents. To assess this hypothesis, an independent-samples t-test was computed. As presented below in Table 2, there were no significant differences of self-efficacy between the groups, $t(237) = 1.41$, $p > .05$.

Table 2

Differences in Self-efficacy Between Groups

		Self-Efficacy	
Groups:	*N*	Mean	SD
Mentally Ill Parent	25	33.20	3.63
Non-Mentally Ill Parent	214	32.02	3.98

Effect of Living with a Parent with Mental Illness Upon Resiliency

The goal of this analysis was to compare levels of resiliency between offspring of mentally ill parents and offspring of mentally healthy parents. It was hypothesized that levels of resiliency would be lower among offspring of mentally ill parents than offspring of mentally healthy parents. To assess this hypothesis, an independent-samples t-test was computed. As presented below in Table 3, there were no significant differences of resiliency between the groups, $t(227) = .505$, $p > .05$

Table 3

Differences in Resiliency Between Groups

Groups:	*N*	Resiliency Mean	SD
Mentally Ill Parent	23	97.4783	13.4295
Non-Mentally Ill Parent	206	98.9660	13.4089

Correlation Between Impact, Years Living With, Self-efficacy, and Resiliency

The goal of this analysis was to compare levels of self-efficacy and resiliency with the impact of parental mental illness and the number of years lived with the mentally ill parent(s). It was hypothesized that a statistically significant negative correlation would be observed for levels of self-efficacy and resiliency with the impact of parental mental illness and the number of years lived with the mentally ill parent(s). It was also hypothesized that a statistically significant positive correlation would be seen for self-efficacy and resiliency. One-tailed correlations were computed to test these hypotheses.

Results indicating a statistically significant positive correlation between resiliency and self-efficacy ($r = .73$, $p < .01$). Overall, results showed no significant correlations between self-efficacy and resiliency with impact of parental mental illness and the number of years lived with the mentally ill parent(s). Correlation coefficients for the impact of parental mental illness, number of years lived with mentally ill parent(s), self-efficacy, and resiliency are presented in Table 4 below.

Table 4

Correlation Coefficients for Impact, Years Living With, Self-efficacy, and Resiliency

	Impact	Years	Self-efficacy
Impact			
Years	.22		
Self-efficacy	.02	-.29	
Resiliency	.22	-.01	.73*

Note: $^{*}p < .01$

CHAPTER IV

DISCUSSION

Offspring of mentally ill parents are two to thirteen times more likely to develop psychopathology compared with children of parents without mental illness (Van Santvoort, Hosman, Van Doesum, & Jansssens, 2014). In fact, some offspring display maladjustment in the form of communication style as early as infancy when interacting with their depressed mother (Væver, Krogh, Smith-Nielsen, Christensen, & Tharner, 2015). For those with mentally ill parents, childhood has been characterized by multiple, intense responsibilities such as caring for other members of the family, mediating conflict, as well as attaining care for the mentally ill parent (Grant, Repper, & Nolan, 2008). Children in such circumstances also describe their childhoods as isolating, unpredictable, and stigmatizing (Foster, Lewis, DipAppSc, & McCloughen, 2014). Additional risks for children with mentally ill parents include a higher risk of child maltreatment and neglect (Royal College of Psychiatrists, 2010; Stith, Liu, Davies, Boykin, & Alder, 2009), poor psychological and physical health (Reupert & Maybery, 2007; Goodman, Rouse, Connell, Broth, & Hall, 2011), and lower competency (Larsson, Knutsson-Medin, Sundelin, & Trost von Werder, 2000). It is important to note that such outcomes are not the result of mental illness alone. That is, a child's exposure to the cognitions, behaviors, and affect of the mentally ill parent are part of a psychosocial mechanism that impact the child's well-being (Van Santvoort, Hosman, Van Doesum, &

Jansssens, 2014). Additionally, Newland (2015) supported the notion that parental well-being is a crucial component of parent-child interactions as well as child well-being. Even more, existing evidence supports a significant, negative relationship between parental stability and child behavioral difficulty.

Despite evidence of negative consequences from living with a mentally ill parent, other studies supported positive developments from such circumstances (Polkki, Ervast, & Huupponen, 2004). Children have been found to develop positive coping strategies (Farber & Egeland, 1987), as well as advanced maturity (Polkki et al., 2004) in reaction to their adverse circumstances brought upon by the presence of a mentally ill parent. Taken a step further, resilience (Knuttson-Medin et al., 2007; Rutter, 1985) and self-efficacy (Hammill, 2003) have been noted as foundational factors for the development of coping strategies and maturity. Resilience research suggests that the potentially detrimental effects of living with a parent with mental illness can be mediated or removed by the constructs of resilience (Fraser & Pakenham, 2009). The ability to garner social support and positive role models, as well as personality attributes such as hardiness, optimism, and regular exercise have been noted to be particularly relevant to resilience (King, Foy, Keane, & Fiarbank, 1999; Southwick, Vythilingham, & Charney, 2005). Similarly, research on self-efficacy suggests that children raised by a parent with a mental illness decrease their risk for developing psychopathology by developing a high level of autonomy and well-being (Rasic, Hajek, Alda, & Uher, 2014). While keeping in mind that self-efficacy is domain-specific (Andreou, 2004), children who present with a high level of self-efficacy in handling adversity stemming from their parent's mental illness

are able to decrease the amount of experienced subjective burden (Solomon & Draine, 1995).

Interestingly, despite the empirically supported negative outcomes of living with a parent with mental illness, children have potential to develop attributes that act as buffers in acquiring such outcomes. Although resilience is empirically supported in the context of healthy development despite adverse circumstances, the potential role of self-efficacy is less well understood. Therefore, it is worth examining whether self-efficacy is a buffer in the experience of living with a mentally ill parent.

Hypotheses

After reviewing evidence between well-being and living with a mentally ill parent along with the ways in which offspring of mentally ill parents cope with adversity, the current study aimed to assess levels of self-efficacy and resiliency in offspring of mentally ill parents in comparison to those with mentally healthy parents. It was predicted that upon conclusion of the study, three specific relationships would be revealed. The first would show that levels of self-efficacy are lower among offspring of mentally ill parents than offspring with mentally healthy parents. The second would show that levels of resiliency are lower among offspring of mentally ill parents than offspring with mentally healthy parents. The third would show that self-efficacy and resiliency are significantly and negatively correlated with the impact of parental mental illness as well as the number of years lived with the mentally ill parent(s). The fourth would show that self-efficacy is significantly and positively correlated with resiliency. That is, the higher an individual scored on the self-efficacy dimension, the more likely that individual would be to score high on the resiliency dimension. Two self-report were used in the study. The

General-Self Efficacy Scale was utilized to assess self-efficacy. The Connor-Davidson Resilience Scale 25 was utilized to assess resiliency.

Findings

There were 257 participants in the study. Among the 272 participants, 27 identified with a mentally ill parent choosing all that apply from a list of seven categories: one from Schizophrenia Spectrum/Other Psychotic disorder, 13 from Bipolar Disorder, 13 from Depressive Disorder, 11 from Anxiety Disorder, two from Obsessive-Compulsive and Related Disorder, two from Trauma and Stressor-Related Disorder, seven from Substance Use/Addictive Disorder, and two from other category. Within these 29 participants, 11 identified with a father with mental illness, 12 identified with a mother with mental illness, four identified with both mother and father with mental illness, and two did not report which parent had a mental illness.

Statistical analysis revealed one significant correlation among the included variables. With regard to self-efficacy, results did not show a significant difference between offspring with a mentally ill parent in comparison to those with mentally healthy parents. With regard to resiliency, no significant difference was found between offspring with a mentally ill parent in comparison to those with mentally healthy parents. On the other hand, a significant correlation for levels of self-efficacy with resiliency was observed. That is, self-efficacy and resiliency have a moderate, positive correlation. Finally, no significant relationship was observed between the self-efficacy and resiliency with impact of parental mental illness and the number of years lived with the mentally ill parents.

The findings of a significant relationship between self-efficacy and resiliency is consistent with the literature that suggests both dimensions are found among offspring who positively cope and adapt in response to living with a mentally ill parent. It is unclear as to why there was no significant relationship between the level of impact upon offspring from having a mentally ill parent and levels of resiliency and self-efficacy. It seems logical that the reported levels of self-efficacy and resiliency are due to other factors besides parental impact. Although there were no significant findings among the other variables, each of these findings warrants further investigation as to why self-efficacy and resiliency do not differ between offspring of mentally ill parents and offspring of mentally healthy parents.

Implications

Although the effects of mental illness upon an individual are empirically and clinically supported, the effects upon offspring of parents with mental illness suggest a dichotomy. On one hand, studies on offspring of mentally ill parents have supported a negative impact, specifically in lower levels of academic and social functioning, as well as an increased risk for mental illness among offspring (Reupert, Maybery, & Kawolenko, 2012). Conversely, studies have yielded a positive impact of having a parent with mental illness, where offspring acquire maturity, independence, empathy, and the ability to accomplish difficult tasks at a younger age in comparison to their peers with mentally healthy parents (Drost, van der Krieke, Systema, and Schippers, 2015). In the context of resiliency, the dichotomy remains. In other words, studies support low levels of resiliency (Christiansen, Anding, Schrott, & Röhrle, 2015) among offspring of mentally ill parents, while other studies support average to high levels of resilience

among offspring of mentally ill parents (Murphy, Peters, Jackson, & Wilkes, 2011). In regard to self-efficacy among offspring of mentally ill parents, neither positive nor negative effects are not as clear. However, self-efficacy as an adaptive coping strategy has been supported in the more general context of adverse circumstances (Hamill, 2003). Therefore, utilizing an approach that yields information regarding self-efficacy within the specific context of offspring of mentally ill parents is enticing.

This study specifically examined the facets of well-being of self-efficacy and resiliency in terms of their relationship with offspring of mentally ill parents as well as offspring of mentally healthy parents. Results indicated that there was no significant difference in levels of self-efficacy and resiliency between both groups of offspring. Additionally, it was found that parental mental illness had no significant impact upon offspring. Comparatively speaking, participants who identified with a mentally ill parent (N=29) were significantly lower than participants who did not identify with a mentally ill parent (N=243). Although the absence of a significant difference between offspring of mentally ill parents and mentally healthy parents may have been due to power, these findings nonetheless carry meaningful implications.

Murphy et al. (2011), found that adult offspring of mentally ill parents developed creativity, resiliency, and personal growth, thereby negating the idea that the presence of a parent with mental illness automatically equates to trauma. Similarly, it was found that young individuals with social support factors demonstrate plasticity in their abilities, perspectives of themselves, and resiliency (Foster et al., 2014). Furthermore, factors such as the provision of information, support from mental health services, and the ability to move away from home have been supported as buffers in being traumatized from living

with a mentally ill parent (Drost et al., 2016). It is imperative for researchers and practitioners to note that trauma is not an absolute when assessing an individual who has lived with a parent with mental illness. Even more, the lack of significant results from this study promote the idea of a neutral point on a spectrum rather than a dichotomy between negative and positive effects of living with a mentally ill parent. In other words, while research has widely supported both positive and negative effects from living with a mentally ill parent, less time has been devoted to exploring the lack of either positive or negative effects from living with a mentally ill parent. According to this study, it is plausible that offspring of mentally ill parents are equally as self-efficacious and resilient as their counterparts with mentally healthy parents.

Research on offspring of mentally ill parents has been fruitful in analyzing the effects of living with a mentally ill parent (Murphy et al., 2011). However, the same cannot be said for the analysis of how offspring of mentally ill parents are as socially, academically, and cognitively competent in comparison to their counterparts with mentally healthy parents. Maybe the 29 participants in this study who identified with a mentally ill parent were able to garner the social support factors suggested by previous research. It is also possible that the experience of living away from home has allowed these participants to mentally distance themselves and gain perspective from their experiences of living with their mentally ill parent(s). This study revealed similar composite scores for self-efficacy and resiliency between both groups, as well as a non-directional impact of parental mental illness among the group that identified with a mentally ill parent. Both of these results point toward the ability for offspring of mentally ill parents to successfully adapt to adverse or unusual circumstances (Hamill, 2003), as

well as acquire protective factors that mediate the potentially detrimental effects of living with a mentally ill parent (Fraser & Pakenham, 2009). The results of this study may also suggest that the lack of a clear, negative impact from living with a mentally ill parent is due to the presence of self-efficacy and resiliency within these offspring. That is, the absence of differences between groups may imply a self-efficacious and resilient sample, regardless of whether or not participants identified with a mentally ill parent.

In consideration of the sample's average age of 19.3 years-old, it is important to consider whether age is a variable in the levels of self-efficacy and resiliency among offspring of mentally ill parents. In other words, the scores for self-efficacy and resiliency for participants who identified with a mentally ill parent in this study might have increased in recent years. Research has highlighted the negative and positive effects on children of mentally ill offspring during childhood years (Van Santvoort, Hosman, Van Doesum, & Janssens, 2014), as well as adult years (Knutsson-Medin, Edlund, Ramklint, 2007). However, much less attention has been given to empirical evidence of factors influencing differences between childhood and adult levels of self-efficacy and resiliency within this population. Given that this study provides results on adult offspring of mentally ill offspring, it is worth consideration whether this sample presented with self-efficacy and resiliency during childhood. Taken a step further, researchers should assess which variables might influence a child to become more or less self-efficacious and resilient during later ages. It is possible that the previously mentioned factors of social support and/or moving away have influenced these participants to become more self-efficacious and resilient. Empirical evidence supporting the reduction of maladjustment among offspring of mentally ill parents due to the provision of mental

health services is scarce (Wansink, Janssens, Hoencamp, Middelkoop, & Hosman, 2015). Therefore, researchers should give special attention to the protective factors offspring independently acquire in response to their abnormal circumstances.

Similarly, the clinical implications are useful for practitioners as well. Although offspring of mentally ill parents may be at an increased genetic risk to develop psychopathology, several studies have highlighted that offspring in such circumstances may not have a diagnosed disorder, but instead need to heal wounds and describe their experiences of grief and worry (Murphy et al., 2011). If children in such circumstances are experiencing grief and worry, then it is prudent that clinicians focus on allowing time for processing emotions and experiences rather than attempting to diagnose in accordance with the mental illness of the parent.

Given that the findings of this study may provide evidence of a resilient and self-efficacious sample despite the experience of living with a mentally ill parent, clinicians should be aware of the experiences that have influenced children to develop these attributes. Knowledge of how individuals are able to achieve resilience and self-efficacy despite these circumstances would allow clinicians to help individuals who are unable to successfully cope and adapt to their adverse experiences. Moreover, this study demonstrates that parental mental illness does not a positive or negative effect upon offspring. Therefore, answering the question as to whether resiliency and self-efficacy are developed as a result of such experiences or are innate may provide insight into the ongoing nature versus nurture debate. This study allows clinicians to provide credibility to a spectrum of results from such experiences rather than a view that places patients on either end of a dichotomy between negatively affected and positively affected by

abnormal childhoods. If factors contributing to the development of self-efficacy and resiliency can be better understood, then clinicians may be able to emphasize the need for such factors for individuals who are struggling to understand their abnormal circumstances.

Limitations and Future Research

A few limitations should be considered in the review of this study. First, it is important to acknowledge that the participants, comprised of college students, represent a convenience sample. Each of the participating college students were psychology majors, therefore not representative of students who major in other academic realms. Due to the information this sample of students has learned from studying psychology thus far, it is possible that they have been able to make connections in their experiences with living with a mentally ill parent. In essence, results may not be generalizable to all parent-child perspectives. More importantly, it should be noted that this particular sample is not representative of the general population due to their status as university students. That is, the status of a university student implies an inherently self-efficacious and resilient sample. The decision to apply for college, as well as the decision to admit a student signals a distinct sample. It is possible that the college admissions process is biased toward individuals who convey qualities related to self-efficacy and resilience. Future research measuring self-efficacy and resiliency among high school students, where selection processes are absent, would be more suitable for such generalizations.

Furthermore, in regard to sample size, the sample of participants who identified with a mentally ill parent was relatively small. This was especially the case when the experimental group of offspring was compared to the control group of offspring who did

not identify with a mentally ill parent. In comparison, the experimental group composed only 10.67% of the entire sample. Second, results from this study should be interpreted with care, as one cannot be completely confident that the parents had been formally diagnosed. The participants were provided with a "check all that apply" list of DSM-5 diagnoses. Rather than relying on a formal diagnosis, it is possible that the participants selected one or more of the boxes that closely resemble what they personally witnessed while living with their parent(s). Third, and in line with this, participants who did not identify with a mentally ill parent may have been unaware of their parent(s) mental illness. There is possibility that the parents of this sample may not have disclosed their mental illness to their children. Lastly, given the self-report nature of the provided assessments, it is possible that the participants focused on their positive experiences and characteristics and minimized their negative experiences. In essence, there is possibility that the participants aimed to present themselves in a more favorable way on the self-report measures.

In regard to future research directions, additional considerations are worth mentioning. First, researchers should explore these relationships of self-efficacy, resiliency, and the impact of a mentally ill parent in settings outside of academia. Researchers should look at samples that have not been able to attend college in order to analyze whether attending college impacts levels of self-efficacy and resiliency. Second, within the sample of offspring of mentally ill parents, additional factors that impact self-efficacy and resiliency are worth exploring. The participants in this study reported that their parents' mental illness had neither a negative nor a positive impact their life, thereby suggesting that other factors influenced their capabilities. Third, age influences on self-

efficacy and resiliency warrants further exploration. Previously noted, the age of the participants in this study may have influenced levels of self-efficacy and resiliency. Given that the participants in this study are college-age, it is possible that being away from home weakened the impact of their parents' mental illness. A future study examining age differences may reveal important findings on the impact of parental mental illness upon offspring. Finally, future work should examine whether ethnic influences levels of self-efficacy and resiliency. Within this study, the sample was predominantly Caucasian, which may have served as a factor in how participants view themselves. A future study examining ethnic differences may provide important findings on the relationship between ethnicity and levels of self-efficacy and resiliency. In conclusion, wider research for offspring of mentally ill parents is necessary to increase understanding of offspring who perform well in various domains.

REFERENCES

Abramowitz, I. A., & Coursey, R. D. (1989) Impact of an educational support group on family participants who take care of their schizophrenic relatives, *Journal of Consulting and Clinical Psychology, 57*(2), 232-236.

Aldridge, J., & Becker, S. (1999). Children as carers: The impact of parental illness and disability on children's caring roles. *Journal of Family Therapy, 21*, 303–320.

Andreou, E. (2004). Bully/victim problems and their association with Machiavellianism and self-efficacy in Greek primary school children. *The British Journal of Educational Psychology, 74*(2), 297-309.

Aspinwall L. G., & Richter, L. (1999). Optimism and self-mastery predict more rapid disengagement from unsolvable tasks in the presence of alternatives. *Motivation x and Emotion, 23*, 221–245.

Bandura, A. (1998). Health promotion from the perspective of social cognitive theory. *Psychology and Health, 13*, 623-649.

Bandura, A. (1994). Self-efficacy. *Encyclopedia of Mental Health, 4*, 71-81.

Baumrind, D. (1992). The influence of parenting style on adolescent competence and substance use. *Journal of Early Adolescence, 11*(1), 56-95.

Beardslee, W. R., Gladstone, T. R., Wright, E.J., & Cooper, A.B. A family-based approach to the prevention of depressive symptoms in children at risk: Evidence of parental and child change. *Pediatrics, 112*(2), 119-131.

Beardslee, W. R., & Podorefsky, D. (1988). Resilient adolescents whose parents have serious affective and other psychiatric disorders: Importance of self-understanding and relationships. *The American Journal of Psychiatry, 145*(1), 63-69.

Beardslee, W. R., Versage, E. M., & Gladstone, T. R. (1998). Children of affectively ill parents: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*(11), 1134-1141.

Bezdjian, S., Schneider, K., Burchett, D., Baker, M., & Garb, H. (2016). Resilience in the united states air force: Psychometric properties of the Connor-Davidson Resilience Scale (CD-RISC). *Psychological Assessment*. Advance online publication.

Bleuler, M. (1978). The schizophrenic disorders: Longterm patient and family studies. *New Haven, CT:Yale University Press.*

Brennan, P.A., Le Brocque, R., & Hammen, C. (2003). Maternal depression, parent-child relationships, and resilient outcomes in adolescence. *Journal of the American Academy of Child and Adolescent Psychiatry, 42*(12), 1469-1477.

Calam, R., Jones, S., Sanders, M., Dempsey, R., & Sadhnani, V. (2012). Parenting and the emotional and behavioural adjustment of young children in families with a parent with Bipolar disorder. *Behavioral and Cognitive Psychotherapy, 40*(4), 425-437.

Chase, N. (1999). Parentification: an overview of theory, research, and societal issues. *Burdened children, theory, research, and treatment of parentification*, 3–33.

Christiansen, H., Anding, J., Schrott, B., & Rohrle, B. (2015). Children of mentally ill parents-a pilot study of a group intervention program. *Frontiers in Psychology*, 6.

Coifman, K. G., & Bonanno, G. A. (2010). When distress does not become depression: Emotion context sensitivity and adjustment to bereavement. *Journal of Abnormal Psychology, 119*(3), 479-490.

Cook, A., Spinazzola,J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., DeRosa, R., Hubbard, R., Kagan, R., Liautaud, J., Mallah, K., Olafson, E., & van der Kolk, B. (2005).Complex trauma in children and adolescents. *Psychiatric Annals, 35*(5), 390-398.

Davidson J., R., T., & Connor K., M. Connor-Davidson Resilience Scale (CD-RISC) Manual. Unpublished. 10-01-2016 and partly accessible at www.cd-risc.com.

Dechillo, N., Matorin, S., & Hallahan, C. (1987). Children of psychiatric patients: Rarely seen or heard. Health and Social Work, 12(4), 296-302.

Delmas, K., Proudfoot, J., Parker, G., & Manicavasagar, V. (2011). Recording past experiences: A qualitative study of how patients and family members adjust to the diagnosis of bipolar disorder. *The Journal of Nervous and Mental Disease, 199*, 136-139.

Dixon, L., Browne, K., & Hamilton-Giachritsis, C. (2005). Risk factors of parents abused as children: A meditational analysis of the intergenerational continuity of child maltreatment (Part I). *Journal of Child Psychology and Psychiatry, and Allied Disciplines, 46*(1), 47-57.

Doll, B., & Lyon, M. A. (1998). Risk and resilience: Implications for the delivery of educational and mental health services in schools. *School Psychology Review, 27*, 348-363.

Downey, G., & Coyne, J. C. (1990). Children of depressed parents: an integrative review. *Psychological Bulletin, 108,* 50-76

Drost, L. M., van der Krieke, L., Sytema, S., & Schippers, G. (2015). Self-expressed strengths and resources of children of parents with a mental illness: A systematic review. *International Journal of Mental Health Nursing, 25*(2), 105-115

Dutra, R., Forehand, R., Armistead, L., Brody, G., Morse, E., Morse, P. S., & Clark, L. (2000). Child resiliency in inner-city families affected by HIV: The role of family variables. *Behaviour Research and Therapy, 38*(5), 471-486.

Easterbrooks, M. A., & Graham, C. A. (1999). Security of attachment and parenting: homeless and low-income housed mothers and infants. *The American Journal of Orthopsychiatry, 69*(3), 337-346.

Farber, E. A., & Egeland, B. (1987). Invulnerability among abused and neglected children. *The Invulnerable Child* (253-288). New York: Guilford Press.

Forehand, R. Thomas, A. M., Wierson, M., Brody, G., & Fauber, R. (1990). Role of maternal functioning and parenting skills in adolescent functioning following parental divorce. *Journal of Abnormal Psychology, 99*(3), 278-283.

Foster, C. J., Garber, J., & Durlak, J. A. (2008). Current and past maternal depression, maternal interaction behaviors, and children's externalizing and internalizing symptoms. *Journal of Abnormal Child Psychology, 36*(4), 527-537.

Foster, K., Lewis, P., & McCloughen, A. Experiences of peer support for children and adolescents whose parents and siblings have mental illness. *Journal of Child and Adolescent Psychiatry Nursing, 27*(2), 61-70.

Fraser, E., & Pakenham, K. I. (2009). Resilience in children of parents with mental illness: Relations between mental health literacy, social connectedness and coping, and both adjustment and caregiving. *Psychology, Health & Medicine, 14*(5), 573-584.

Frick, P.J., Lilienfeld, S.O., Ellis, M.L., Loney, B.R., & Silverthorn, P. (1999). The Association Between Anxiety and Psychopathy Dimensions in Children. *Journal of Abnormal Child Psychology, 27*, 381–390

Gallagher, S., & Mechanic, D. (1996). Living with the mentally ill: Effects on the health and functioning of other household members. *Social Science and Medicine, 42*(12), 1691-1701.

Gladstone, B. M., Boydell, K. M., & McKeever, P. (2006). Recasting research into children's experiences of parental mental illness: Beyond risk and resilience. *Social Science and Medicine, 62*(10), 2540-2550.

Grant, G., Repper, J.,& Nolan, M. (2008). Young people supporting parents with mental health problems: Experiences of assessment and support. Health Sociology Care Community, 16(3), 271-281.

Goodman, S. H., Rouse, M. H., Connell, A. M., Broth, M. R., Hall, C. M., & Heywar, D. (2011). Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review, 14*(1), 1-27.

Hall, A. (2004). Parental Psychiatric Disorder and the Developing Child. In *Parental psychiatric disorder: Distressed parents and their families* (pp. 21-46). New York, NY: Cambride

Hamill, S. K. (2003). Resilience and self-efficacy: The importance of efficacy beliefs and coping mechanisms in resilient adolescents. *Colgate University Journal of the Sciences, 35*, 114-136.

Hasui, C., Sakamoto, S., Sugiura, T., Miyata, R., Fujii, Y., Koshiishi, F., & Kitamura, T. Burden on family members of the mentally ill: a naturalistic study in Japan. (2002). *Comprehensive Psychiatry, 43*(3), 219-222.

Hinshaw, S. (2004). Parental mental disorder and children's functioning: Silence and communication, stigma and resilience. *Journal of Clinical Child and Adolescent Psychology, 33*(2), 400-411.

Horwitz, A., Reinhard, S., & Howell-White, S. (1996). Caregiving as a reciprocal exchange in families with seriously mentally ill members. *Journal of Health and Social Behavior, 37*(2), 149-162.

Hosman, C., van Doesum, K., & van Santvoort, F. (2009). Prevention of emotional problems and psychiatric risks in children of parents with mental illness in the Netherlands: The scientific basis to a comprehensive approach. *The Australian e-Journal for the Advancement of Mental Health, 8*(3), 264-276.

Jacobvitz, D. B., & Bush, N. F. (1996). Reconstructions of family relationships: Parent-child alliances, personal distress, and self-esteem. *Developmental Psychology, 32*(4), 732-743.

Jerusalem, M., & Schwarzer, R. (1981). Generalized Self-Efficacy scale. In J. Weinman, S. Wright, & M. Johnston, *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, UK: Nfer-Nelson.

Kanner, A., Coyne, J., Schaefer, C., & Lazarus, R. (1981). Comparison of two modes of stress measurement: Daily hassles and uplifts versus major life events. *Journal of Behavioral Medicine, 4*(1), 1-39.

Katz, J., Petracca, M., & Rabinowitz, J. (2009). A retrospective study of daughter's emotional role reversal with parents, attachment anxiety, excessive reassurance-seeking, and depressive symptoms. *American Journal of Family Therapy, 37*, 185-195.

Khan, M., Hanif, R., & Tariq, N. (2014). Relationship of parental mental health with children's behavioral problems: Role of social support and resilience. *Journal of Behavioural Sciences, 24*(1), 115-129.

Kiecolt-Glaser, J., Malarkey, W., Chee, M., Newton, T., Cacioppo, J., Mao, H., & Glaser, R. (1993). Negative behavior during marital conflict is associated with immunological down-regulation. *Psychosomatic Medicine, 55*(5), 395-472.

King, D.W., Foy, L. A., Keane, D. W., & Fairbank, J. A., (1999). Posttraumatic stress disorder in a national sample of female and male Vietnam veterans: Risk factors, war-zone stressors, and resilience-recovery variables. *Journal of Abnormal Psychology, 108*(1), 164-170.

Kinney, J., & Stephens, M. (1989). Hassles and uplifts of giving care to a family member with dementia. *Psychology and Aging, 4*(4), 402-408.

Knutsson-Medin, L., Edlund, B., & Ramklint, M. (2007). Experiences in a group of grown-up children of mentally ill parents. *Journal of Psychiatric and Mental Health Nursing, 14*(8), 744-752.

Larsson, B., Knutsson-Medin, L., Sundelin, C. & Trost von Werder, A. (2000). Social competence and emotional/behavioural problems in children of psychiatric inpatients. *European Child and Adolescent Psychiatry, 9*(2), 122-128.

Lazarus, R. S., & Folkman, S. Stress, appraisal, and coping. New York: Springer; 1984.

Madewell, A. N., Ponce-Garcia, E. Assessing resilience in emerging adulthood: The resilience scale (RS) connor-davidson resilience scale (CD-RISC), and scale of protective factors (SPF). *Personality and Individual Differences, 97,* 249-255.

Marsh, D., Lefley, H., Evans-Rhodes, D., Ansell, V., Doerzbacher, B., LaBarbera, L., & Paluzzi, J. (1996). The family experience of mental illness: Evidence for resilience. *Psychiatric Rehabilitation Journal, 20*(2), 3-12.

Masten, A., Best, K., & Garmezy, N. (1990). Resilience and development: Contributions from the study of children who overcome adversity. *Development and Psychopathology. 2*, 425-444.

Menard, C. B., Bandeen-Roche, K. J., & Chilcoat, H. D. (2004). Epidemiology of multiple childhood traumatic events: Child abuse parental psychopathology, and other family-level stressors. *Social Psychiatry and Psychiatric Epidemiology, 39*(11), 857-865.

Mordoch, E., & Hall, W. A. (2008). Children's perceptions of living with a parent with a mental illness: Finding the rhythm and maintaining the frame. *Qualitative Health Research. 18*(8), 1127–1144.

Murphy, G., Peterks, K., Jackson, D., & Wilkes, L. (2011). A qualitative meta-synthesis of adult children of parents with a mental illness. *Journal of Clinical Nursing, 20*, 3430-3442.

Newland, L. (2015). Family well-being, parenting, and child well-being: Pathways to healthy adjustment. *Clinical Psychologist, 19*(1), 1-61.

Nicholson, J., Sweeney, E. M., & Geller, J. L. (1998). Mothers with mentall illness: I. The competing demands of parenting and living with mental illness. *Psychiatric Services, 49*(5), 635-642.

Ohara, C., Komaki, G., Yamagata, Z., Hotta, M., Kaimo, T., & Ando, T. (2016). Factors associated with caregiving burden and mental health conditions in caregivers of patients with anorexia nervosa in Japan. *BioPsychoSocial Medicine, 10*, 21.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior, 19*(1), 2-21.

Platt, S. (1985). Measuring the burden of psychiatric illness on the family: an evaluation of some rating scales. *Psychological Medicine, 15*, 383-293.

Polkki, P., Ervast, S. A., & Huupponen, M. (2004). Coping and resilience of children of a mentally ill parent. *Social Work in Health Care, 39*(1-2), 151-163.

Pretis, M., & Dimova, A. (2008). Vulnerable children of mentally ill parents: towards evidence-based support for improving resilience. *Social Innovative Network, 23*(3), 152-159.

Prevatt, F. F. (2003). The contribution of parenting practices in a risk and resiliency model of children's adjustment. *British Journal of Developmental Psychology, 21*, 469-480.

Radke-Yarrow, M., & Brown, M., (1993). Resilience and vulnerability in children of multiple-risk families. *Development and Psychopathology, 5*(4), 581-592.

Rasic, D., Hajek, T., Alda, M., & Uher, R. (2014). Risk of mental illness in offspring of parents with schizophrenia, bipolar disorder, and major depressive disorder: A meta-analysis of family high-risk studies. *Schizophrenia Bulletin, 40*(1), 28-38.

Reupert, A., & Maybery, D. (2007). Families affected by parental mental illness: A multi-perspective account of issues and interventions. *American Journal Orthopsychiatry, 77*(3), 632-369.

Reupert, A. E., Maybery, D. J., Kowalenko, N. M. (2012). Children whose parents have a mental illness: Prevalence, need and treatment. *Medical Journal of Australia, 196*(7), 7-9.

Royal College of Psychiatrists (2010). Parents as patients: Supporting the needs of patients who are parents and their children. Available: http://www.repsych.ac.uk/publications/collegereports/cr/cr164.aspx

Rutter, M. (1985). Psychiatric disorder in parents as a risk factor in children. Prevention of Psychiatric Disorders in Child and Adolescent: The Project of the American Academy of Child and Adolescent Psychiatry, 2, 157-189.

Rutter, M. (1989). Pathways from childhood to adult life. *The Journal of Child Psychology and Psychiatry, 30*(1), 23-51.

Rutter, M. (1990). Changing patterns of psychiatric disorders during adolescence. In *The Kinsey Institute Series, Volume 3* . (pp. 124-145). New York, NY: Oxford University Press

Saarni, C. (1999). *The development of emotional competence.* New York: Guilford Press.

Schwarzer, R., & Warner, L. M. (2013). Perceived self-efficacy and its relationship to resilience. *Resilience in Children, Adolescents, and Adults: Translating Research into Practice* 139-150.

Sherman, M. (2007). Reaching out to children of parents with mental illness. *Social Work Today*, *7*(5), 26.

Shifren K, & Kachorek L. V. (2003). Does early caregiving matter? The effects on young caregivers' adult mental health. *International Journal of Behavioral Development, 27*, 338–346.

Sidebotham, P., & Heron, J., & ALSPAC Study Team. (2006). Child maltreatment in the "children of the nineties": A cohort study of risk factors. *Child Abuse & Neglect, 30*(5), 497-522.

Smith, M. (2004). Parental mental health: Disruptions to parenting and outcomes for children. *Child and Family Social Work*, *9*, 3–11

Solantaus, T., Paavonen, E. J., Toikka, S., & Punamaki, R. (1996). Preventive interventions in families with parental depression: children's psychosocial symptoms and prosocial behaviour. *European Child & Adolescent Psychiatry, 19*(12), 883-892.

Solomon, P., & Draine, J. (1995). Subjective burden among family members of mentally ill adults: Relations to stress, coping, and adaptation. *American Journal of Orthopsychiatry, 65*(3), 419-427.

Southwick, S. M., Vythilingham, M., & Charney, D. S., (2005). The psychology of depression and resilience to stress: Implications for prevention and treatment. *Annual Review of Clinical Psychology, 1*, 255-291.

Steinberg, L., Lamborn, S. D., Darling, N., Mounts, N. S., & Dornbusch, S. M. (1994). Over-time changes in adjustment and competence among adolescents from authoritative, authoritarian, indulgent, and neglectful families. *Child Development, 65*(3), 754-770.

Stith, S. M., Liu T., Davies, L. C., Boykin, E. L., Alder, M. C., Meagan, C., Harris, J. M., Som, A., McPherson, M., & Dees J. (2009). Risk factors in child maltreatment: A meta analytic review of the literature. *Aggression and Violent Behavior, 14*(1), 13-29.

Væver, M. S., Krogh, M. T., Smith-Nielsen, J., Christensen, T. T., & Tharner, A. (2015). Infants of depressed mothers show reduced gaze activity during mother-infant interaction at 4 months. *Infancy, 20*(4), 445-454.

Van Parys, H., Bonnewyn, A., Hooghe, A., De Mol, J., & Rober, P. (2015). Toward understanding the child's experience in the process of parentification: Young adults' reflections on growing up with a depressed parent. *Journal of Marital and Family Therapy, 41*(4), 522-536.

Van Santvoort, F., Hosman, C. M., Van Doesum, K. T., & Janssens, J. M. (2014). Effectiveness of preventive support groups for children of mentally ill or addicted parents: A randomized control trial. *European Child and Adolescent Psychiatry, 23*(6), 473-484.

Wansick, H. J., Janssens, J. M., Hoencamp, E., Middelkoop, B. J., & Hosman, C.M. (2015). Effects of preventive family service coordination for parents with mental illnesses and their children, a RCT. *Families, Systems, and Health, 33*(2), 110-119.

Zipple, A. M., & Spaniol, L. (1987). Current educational and supportive models of family intervention. *Families of the mentally ill: Coping and Adaptation*. New York: Guilford. 261-277.

APPENDIX A

IRB Approval Letter

ABILENE CHRISTIAN UNIVERSITY
Educating Students for Christian Service and Leadership Throughout the World

Office of Research and Sponsored Programs
320 Hardin Administration Building, ACU Box 29103, Abilene, Texas 79699-9103
325-674-2885

1/18/2017

Craig Motsenbocker
Department of Psychology
ACU Box 28011
Abilene Christian University

Dear Mr. Motsenbocker:

On behalf of the Institutional Review Board, I am pleased to inform you that your project titled Self-Efficacy In Offspring of Mentally Ill Parents

was approved by expedited review (46.110(b)(1) category 7) on 1/18/2017 for a period of one year (IRB # 16-114). The expiration date for this study is 1/8/2018 . If you intend to continue the study beyond this date, please submit the Continuing Review Form at least 30 days, but no more than 45 days, prior to the expiration date. Upon completion of this study, please submit the Inactivation Request Form within 30 days of study completion.

If you wish to make **any** changes to this study, including but not limited to changes in study personnel, number of participants recruited, changes to the consent form or process, and/or changes in overall methodology, please complete the Study Amendment Request Form.

If any problems develop with the study, including any unanticipated events that may change the risk profile of your study or if there were any unapproved changes in your protocol, please inform the Office of Research and Sponsored Programs and the IRB promptly using the Unanticipated Events/Noncompliance Form.

I wish you well with your work.

Sincerely,

Megan Roth

Megan Roth, Ph.D.
Director of Research and Sponsored Programs

APPENDIX B

Informed Consent

You have been invited to participate in a study investigating resiliency and self-efficacy in offspring of mentally-ill parents. The decision to participate is completely voluntary. If you decide to participate, you will be asked to complete two brief surveys as well as provide some basic demographic information. It is estimated that this will require between 15 and 20 minutes of your time.

You may find the questions embarrassing or briefly upsetting but no serious or long-term consequences are expected. Additionally, possible risks include breach in confidentiality that may result in the release of personal information. However, the probability of this risk occurring is not likely to occur, and thus only constitutes minimal risk. Steps will be taken to ensure that any information you provide will remain confidential and intact. Specifically, your responses will only be used for data analysis and will not be shared with anyone outside of the research team. Furthermore, your name will not be collected for this research project. Rather, the only identifying information we will request will be your Banner ID which will only be used to ensure that you are provided with the agreed upon extra credit for Dr. Beck's class. Upon receiving extra credit, your Banner ID information will be eliminated from the data file. Data used in statistical analysis will include only your responses. The data file will be kept on a password protected university-owned computer behind a locked door and will be maintained for no more than a period of three years following project completion. Once the three-year period is complete, the data will be deleted. Following completion of surveys on the following pages, you will receive extra credit to the Introduction to Psychology from Dr. Richard Beck. Participation in this study is entirely voluntary. By responding to survey questions on the following pages, you acknowledge having read this information and give formal consent to participate in this study.

If you have any questions or concerns, feel free to contact any of these individuals:

Craig Motsenbocker, Researcher
469-323-8651
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325-674-2472
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325-674-2885
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APPENDIX C

Preliminary Questions

1. Do at least one of your parent(s) have a diagnosed mental illness?

A. Yes

B. No

2. Which parent(s) have a diagnosis?

3. What is their diagnosis? Check all that apply (if there is more than one) and give specific diagnosis in the box provided below.

A. Schizophrenia Spectrum/Other Psychotic Disorder

B. Bipolar Disorder

C. Depressive Disorder

D. Anxiety Disorder

E. Obsessive-Compulsive and Related Disorder

F. Trauma and Stressor-Related Disorder

G. Substance Use/Addictive Disorder

H. Other

4. How many years have you lived with your diagnosed parent(s)?

5. What impact has your parent(s) mental illness had upon you?

A. 0-100

APPENDIX D

Generalized Self-Efficacy Scale (GSE)

1. I can always manage to solve difficult problems if I try hard enough.
2. If Someone opposes me, I can find the means and ways to get what I want.
3. It is easy for me to stick to my aims and accomplish my goals.
4. I am confident that I could deal efficiently with unexpected events.
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.
6. I can solve most problems if I invest the necessary effort.
7. I can remain calm when facing difficulties because I can rely on my coping abilities.
8. When I am confronted with a problem, I can usually find several solutions.
9. If I am in trouble, I can usually think of a solution.
10. I can usually handle whatever comes my way.

Items are rated on a scale of…

Not at all true

Hardly true

Moderately true

Exactly true

APPENDIX E

Connor-Davidson Resilience Scale 25 (CD-RISC-25)

1. I am able to adapt when changes occur.
2. I have at least one close and secure relationship that helps me when I am stressed.
3. When there are no clear solutions to my problems, sometimes fate or God can help.
4. I can deal with whatever comes my way.
5. Past successes give me confidence in dealing with new challenges and difficulties.
6. I try to see the humorous side of things when I am faced with problems.
7. Having to cope with stress can make me stronger.
8. I tend to bounce back after illness, injury, or other hardships.
9. Good or bad, I believe that most things happen for a reason.
10. I give my best effort no matter what the outcome may be.
11. I believe I can achieve my goals, even if there are obstacles.
12. Even when things look hopeless, I don't give up.
13. During times of stress/crisis, I know where to turn for help.

14. Under pressure, I stay focused and think clearly

15. I prefer to take the lead in solving problems rather than letting others make all the decisions.

16. I am not easily discouraged by failure.

17. I think of myself as a strong person when dealing with life's challenges and difficulties.

18. I can make unpopular or difficult decisions that affect other people, if it is necessary.

19. I am able to handle unpleasant or painful feelings like sadness, fear, and anger.

20. In dealing with life's problems, sometimes you have to act on a hunch without knowing why.

21. I have a strong sense of purpose in life.

22. I feel in control of my life.

23. I like challenges.

24. I work to attain my goals no matter what roadblocks I encounter along the way.

25. I take pride in my achievements.

Items are rated on a scale of…

Not true at all

Rarely true

Sometimes true

Often true

True nearly all the time