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Predictors of Resilience and Their Influence on Adaptation after Elective Abortion

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PREDICTORS OF RESILIENCE AND THEIR INFLUENCE ON ADAPTATION

AFTER ELECTIVE ABORTION

By

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A dissertation submitted in partial fulfillment
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ABSTRACT

Predictors of Resilience and Their Influence on Adaptation after Elective Abortion

By Anna Marie B. Antonio

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The literature has inconsistent findings on the impact of an induced abortion on a woman's physical and psychological well-being. The purposes of this survey research design using correlational and multiple regression analyses were to determine the relationship between protective factors, risk factors, resilience, and outcomes (positive or negative). Additionally, this study investigated whether resilience, protective factors, and risk factors could be predictive of positive or negative outcomes following induced abortion. A convenience sample of 216 women was recruited nationally from hospitals, clinics, and various organizations. Inclusion criteria included women, 18 years of age or older, living in the United States, able to read English at a 5th grade level, history of one or more induced abortions at any time, and willingness to give informed consent. Online survey questionnaires using Survey Monkey were used to collect the data. Descriptive statistics including frequencies, means, and standard deviations were used to describe the demographic variables. Correlational and multiple regression analyses were carried out to answer the research questions by testing the hypotheses of the study. There is sufficient evidence to indicate that individual protective factors are positively correlated with resilience. There is sufficient evidence to indicate that increased numbers of protective factors are positively correlated with resilience. There is sufficient evidence to indicate that individual risk factors are negatively correlated with protective factors and

resilience. There is sufficient evidence to indicate that increased numbers of risk factors is negatively correlated with protective factors and resilience. There is sufficient evidence to indicate that positive outcome is positively correlated with protective factors and resilience. There is sufficient evidence to indicate that negative outcome was negatively correlated with protective factors and resilience. Two multiple regression analyses indicated that resilience was not significantly predictive of positive outcome. The significant predictors of positive outcome were Herth Hope Index (HHI), Jalowiec Coping Scale (JCS), parents/participant negative score, and homeownership. Resilience was significantly predictive of a negative outcome. The significant predictors of negative outcome were Resilience Scale (RS), Spiritual Well-Being (SWBS), Effectiveness in Obtaining Resources (EOR), and employment status.

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To my only God, thank you for all your blessings. Thank you for the gift of life and for the talents that You have given me. You are the only reason for my being.

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CHAPTER 1

Introduction

One of the nation's health goals is to reduce unintended pregnancies from 49% to

39% in the next decade (United States [U.S.] Department of Health and Human Services,

2000). The most recent version of Healthy People 2020 ("Healthy People 2020," 2009)

addresses this goal by including objectives on improving the health and well-being of

women between 18 and 44 years of age by proposing an increase in access to

preconception and interconception services. Objectives in Healthy People 2020 also

propose increased screening for mental health disorders, as well as increasing the number

of adults who can receive mental health treatment. To strengthen this mandate the

National Institute of Nursing Research (NINR) is funding studies focused on health

promotion and women's life-long health (National Institute of Nursing Research, 2004).

Unintended pregnancy, which is defined as either mistimed or unwanted at the time

of conception ("Unintended Pregnancy," 2010), is a public health, political, and socio-

economic issue that needs attention from the health care system and political arena

(Santelli et al., 2003). This unexpected life event can bring about stresses and challenges

that can negatively affect the physical, mental, emotional, and socio-economic well-being

of women as they make difficult decisions related to their pregnancies (Kuroki,

Allsworth, Redding, Blume, & Peipert, 2008; Gipson, Koenig, & Hindin, 2008;

Westhoff, 2003). Though some women experience few negative consequences when an

induced abortion is chosen as a way of dealing with their unintended pregnancy, other

women have significant mental and physical problems.

Resilience can be one of the defining differences between women who can thrive even when faced with adversities, as opposed to those who succumb to destructive behaviors. Resilience is the individual's ability in the face of overwhelming adversity to adapt and restore equilibrium to his or her life and to avoid the potentially deleterious effects of stress (Wagnild & Young, 1993). Hence, resilience can play a significant role in protecting women from the negative consequences of unintended pregnancies.

Background

In 2006, Centers for Disease Control and Prevention (CDC) reported that 33.4% - 59.5% of pregnancies in 24 states were unintended ("Pregnancy Risk Assessment Monitoring System (PRAMS)," 2009). Finer and Henshaw (2006) chronicled that in 2001, almost 50% of the pregnancies in the US were unintended. In 2002, nearly 5 billion U.S. Dollars per year were spent for the medical expenses related to unintended pregnancies (Kuroki et al., 2008; Amaral et al., 2007).

Though unexpected pregnancies affect women of all ages, teenage pregnancy rates in the U.S. continue to be in the higher percentages among industrialized nations (Evans et al., 2003). According to Pazol et al. (2009), the rate was 11.0 per 1,000 adolescents, while the abortion ratio was 358 abortions per 1,000 live births, with a large number of these pregnancies unplanned. Between 15 – 44 years of age, one in every two females had at least one unintended pregnancy (PRAMS, 2009; Henshaw, 1998). However, teens aged 15 – 19 are the most at risk for unintended pregnancies (PRAMS, 2009; Trussell, Ellertson, Stewart, Raymond, & Shochet, 2004; Steinbrook, 2004). Though the percentage of teenagers who do poorly as a result of an induced abortion might be small,

the effect on teens that suffer negative consequences, physical or mental, is still important and warrants further consideration.

The induced abortion rate reported for the U.S. was higher than recent rates reported for Canada and Western European countries (Evans et al., 2003). In fact, the U.S. has the second leading number of legal induced abortions worldwide with a total of 1,210,880 annually (Organization for Economic Co-operation and Development, 2010; World Health Organization, 2008). With these considerable numbers, recognizing the positive and negative outcomes of this choice is important in understanding women's health.

Pregnancy intentions are complex and difficult to assess (Lifflander, Gaydos, & Hogue, 2007; Santelli et al., 2003). However, among all the pregnancies in the US, 48% are unintended (Finer & Henshaw, 2006) and induced abortion is a prevalent choice when dealing with this event (Thorp, Hartman, & Shadigian, 2003). In fact, in the US, one fifth of all pregnancies end in induced abortion (Finer & Henshaw, 2006), with 848,181 induced abortions reported to CDC in 2006. According to Pazol et al. (2006), in 2006, there was an increase of 3.2% in the induced abortion rate from the previous year among women aged 15 to 44 years, reaching a figure of 16.1 abortions per 1,000 women. Women who undergo induced abortion can have subsequent adverse health and well-being outcomes owing to the procedure's complexity. Understanding the mechanisms that support good choices can help health care providers assist women when they are deciding on what actions to take for an unwanted pregnancy.

When the CDC began abortion surveillance in 1969, they only documented the number and demographic characteristics of women obtaining abortions. Reports on any psychiatric or psychological problems related to induced abortion were not included.

Recent studies on the impact on the female mental health have demonstrated that some women do well after an induced abortion while others do poorly; nevertheless, the short and long-term effects of abortion on women have remained inconclusive (Thorp et al., 2003). Resilience can be the pivotal factor that can explain the disparity in the relationship of induced abortion and psychological effects in women who experienced it.

Significance of the Study and Nursing Implications

With a considerable number of women undergoing induced abortion, the need is evident to evaluate and study further why some women do well while others do poorly. Unfortunately, the available studies are not only insufficient; they also report conflicting conclusions regarding the effects of abortion on the physical and mental well-being of women who underwent the procedure (Thorp et al., 2003).

Broen, Moum, Bodtker, and Ekeberg (2006) concluded that women who had induced abortions had higher rates of anxiety and depression than the general population. Fergusson, Horwood, and Ridder (2006) found that abortion in women might be associated with increased risks of mental health problems. As well, Schmiege and Russo's (2005) study reported inconclusive results when determining the risk of depression for women who chose to terminate rather than deliver an unwanted pregnancy. Therefore, the extent to which abortion has harmful consequences for mental health remains controversial (Fergusson et al., 2006).

A few studies have compared the psychological sequelae following either medical or surgical abortion (Ashok et al., 2005). However, this research addressing the emotional reaction to induced abortion is limited due to: (a) short follow-up periods; (b) the absence of information on prior psychological state; and (c) lack of nationally representative

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samples (Cougle, Reardon, & Coleman, 2003). These limitations further reduce our understanding of the psychological sequelae of induced abortion (Illsey & Hall, 1976).

Resilience is one variable that might account for the inconsistent results on the impact of induced abortion on women's physical and psychological state. Understanding how the concept of resilience has evolved as a meaningful variable that influences health are important in this study's exploration of the effect of resilience on women's health.

The concept of resilience is defined in different ways. One popular definition is that resilience is the ability to bounce back or cope successfully despite substantial adversity (Rutter, 1985). Earlier research considered resilience as a personality trait. However, over the past decades, the meaning of resilience evolved to a dynamic, modifiable process (Luthar, Cichetti, & Becker, 2000). Thus, the concept of resilience presently emphasizes the adaptive outcomes, protective processes, and protective factors (Rutter, 1990; Gamerzy, 1993; Fraser, Kirby, & Smokowski, 2004). Some of the viewpoints on resilience include outcomes (Rutter, 1990), processes (Kumpfer, 1999), and/or the ability to cope despite stressful circumstances (Grotberg, 2003).

Arthur et al. (2002) explained, "Resilient individuals use more than one resilient factor at a time and the greater the number of resilience factors possessed by an individual, the greater the probability of positive outcomes" (p. 584). Fraser, Richman, and Galinsky (1999) also emphasized, "If we can understand what helps some people function well in the context of high adversity, we may be able to incorporate this knowledge into new practice strategies" (p. 136).

Thus, according to the modern theories, the dynamic, modifiable process of resilience continues to evolve and some authors have added that biopsychosocial/spiritual process is

dependent on life context and its complicated processes (Stewart, Reid, & Mangham, 1997). Congruent with this biopsychosocial/spiritual process, researchers have noted that "faith, spirituality, belief in something larger than oneself, and the ability to develop meanings following a traumatic event were important characteristics in the development of resilience" (Angell, Dennis, & Dumain, 1998, p. 618). Researchers have also asserted that caring relationships (Ainsworth, 1989) and strong social network (Steele & Steele, 1994) were significant contributors to increased resilience.

Identifying the components of resilience can promote early recognition of protective factors and/or qualities of resilient individuals that will help buffer the negative consequences of any stressful life event as well as thwart the development of risk factors that can elicit negative consequences. Health care providers can also gain invaluable knowledge and understanding of the dimensions and characteristics of resilience; thus, creating treatment plans that can contribute to and further enhance clients' resilience. In addition, comprehension and application of the research findings is crucial in the foundation of education and in the translation of resilience-based interventions and evidence-based practice.

In addition to resilience, numerous researchers have recognized relevant promotive (protective) factors that might buffer the effect of risk factors and protect women from the negative consequences of induced abortions. These protective factors include: hope (Goldsmith, Pellmar, Kleinman, & Bunney, 2002; Valle, Huebner, & Suldo, 2006), spirituality (Ferrell & Coyle, 2008; Puchalski, 2004; Dobratz, 2002), self-efficacy (Lin, Sandler, Ayers, Wolchik, & Luecken, 2004; Cauce, Stewart, Rodriguez, Cochran, & Ginzler, 2003), coping skills (Masten & Powell, 2003), social support (Piko, 2000;

Fleming, Kim, Harachi, & Catalano, 2002), and effectiveness in obtaining resources (Borowsky, Ireland, & Resnick, 2002; Belle & Doucet, 2003).

Researchers have also identified a number of risk factors (Rutter, 1990; Fraser et al., 2004) that might be critical to recognize in order for women to mitigate or avoid the negative consequences of induced abortions. These factors include: educational status (Garmerzy, Masten, & Tellegen, 1984; Werner, 1989), socio-economic disadvantage (Buckner, Mezzacappa, & Beardslee, 2003; Kim-Cohen, Moffitt, Caspi, & Taylor, 2004), family breakdown (King, Schwab-Stone, & Flisher, 2001; Breton, Tousignant, Bergeron, & Berthiaume, 2002), physical and mental illness (Costello, Egger, & Angold, 2005; McLeod & Kaiser, 2004), parental psychiatric illness (Luthar & Sexton, 2007), and the presence of adverse life events (D'Imperio, Dubow, & Ippolito, 2000). These factors may also be important to consider when evaluating women at risk for depression, anxiety, and somatization symptoms, which can occur because of those major life stressors.

Though majority of women do not suffer mental health problems following an induced abortion, some women do. To understand these negative consequences health care providers need to consider the short and long term negative mental health consequences specific to an induced abortion. Depression, anxiety, and suicidal ideation/attempts (Broen et al., 2006; Cougle et al., 2003) are a few of the negative outcomes that health care providers may encounter in treating these women. To assist women in making decisions about unwanted pregnancies, studies must continue to evaluate the positive and negative impact of induced abortion, so that health care workers can focus on the patient's strengths and provide support for the patient's vulnerabilities.

As stated above, major depression is one possible negative consequence of induced abortion and can be a significant health problem. This is noteworthy because numerous research studies and national surveys from different countries and cultures have consistently ascertained robust findings of the gender gap in depression among adults, stating that women are twice as likely to be depressed as men (Gater et al., 1998). Depression is more prevalent among adolescent girls than in boys of same age (Wade, Cairney, & Pevalin, 2002; Khalil et al., 2010). In the U.S. the lifetime prevalence of major depression in the general population is 17.1% while the incidence among females is 21.3% (Kessler et al., 1994; Greden, 2001). Due to severe social and economic impact of depression, these high rates cannot be ignored (Simon, 2003; Sartorius, 2001). By 2020, major depression together with anxiety disorders, which represent a considerable amount of the global burden of disease, are expected to be the second most common cause of disability (Murray & Lopez, 1996; Greden, 2001) and the prominent cause of disability among women worldwide (Lopez & Mathers, 2006). Ustun, Ayuso-Mateos, Chatterji, Mathers, & Murray (2004) found depression to be the fourth leading cause of disease burden; it is the largest amount of nonfatal burden, accounting for almost 12% of all total years living with disability worldwide. The tendency of depression toward under detection and under treatment (Vega-Lopez et al., 2008; Kelly, Zatzick, & Anders, 2001), the strong association with somatic problems, the high rate of relapse (Duggan, 1997), and the high prevalence of suicide – estimated at 15% (American Psychiatric Association, 1994; Lonnqvist, 2000), further demonstrate the fact that the depressive disorders can develop into severe mental health problems.

Anxiety disorders are another potential outcome for induced. Being female can pose a risk in developing anxiety. This might increase the likelihood of developing anxiety in a stressful event, such as abortion. Numerous epidemiological surveys and various research studies have proven and documented the findings that women, in general, have shown significantly higher rates of anxiety and depression compared to men (Breslau, Schulz, & Peterson, 1995; APA, 1995; Kuehner, 2003). Previous research studies have established that adolescent girls reported higher levels of anxiety, depression, and post-traumatic stress symptoms than boys of same age (Zahn-Waxler, 1993; Leadbeater, Kupermine, Blatt, & Hertzog, 1999; Foster, Kupermine, & Price, 2004). Female reproductive hormones and related cycles are two early childhood vulnerability factors for adult anxiety disorder, behavioral inhibition, and separation anxiety are more prevalent and enduring in girls than boys (Pigott, 1999). Complications in anxiety disorders, such as agoraphobia and depression, are also more frequently diagnosed in females (Pigott, 1999). Post-traumatic disorder (PTSD) is one type of anxiety disorder, with prevalence is between 7% and 8% in the general population; women are twice as likely to develop PTSD as men (Kessler et al., 1994). The quality of life is more severely disrupted in females than in males with depression and/or anxiety disorders on a variety of measures of symptom severity, including effects on interpersonal relationships and functional impairment (Shear, 1997). Most research studies have focused on males, as compared to women and children, which might lead to serious implications on the health care of women and children. Males typically have been considered as the standard model in research studies on males and human beings in general; studies focus less often on women as the standard model (Nauert, 2006). This study focuses on women to address

the gender bias that has existed in research studies, particularly in health care. The findings of this study are used to recommend practice guidelines on how to care for women who have had an induced abortion. These recommendations are guided by the resilience model as it has both preventive and treatment implications. The application of the resilience model can guide health care providers in seeking and recognizing the importance of strengthening protective factors, uncovering the patients' vulnerabilities and risk factors, early diagnosis and treatment of symptoms, and utilizing resilience-based interventions to enhance positive outcomes. These approaches can modify the impact of adversities, promote resilience, and increase the number of positive health outcomes. The results of the study will further emphasize the understanding and importance of dialogue between clinicians and women who have had abortions, thereby improving education, compliance, and positive outcomes.

Statement of the Problem

Amidst these conflicting studies on the consequences and outcomes of induced abortion, the resilience of women who have had an induced abortion has never been investigated. In spite of the stresses associated with an induced abortion, some women do well while others develop depression or other mental disorders. Resilience might actually hold the promise of better understanding of the relationship between induced abortion and women's subsequent psychological experience (i.e. depression and anxiety).

Statement of the Purpose

The purposes of this study are: (1) to determine the relationship between resilience and protective factors (hope, spirituality, self-efficacy, coping skills, social support, and effectiveness in obtaining resources); (2) to determine the relationship between resilience

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and risk factors (educational status, mental and health status, socio-economic status, parental history of mental disorder, family breakdown/conflict, and presence of a stressful event); and (3) to determine the relationship of resilience and protective factors with positive (adaptation) and negative outcomes (depression, anxiety, and somatization symptoms). Additionally, this study determines if resilience, protective factors, and risk factors can be predictive of positive or negative outcomes following induced abortion.

Variables

The research variables of this correlational study are defined as follows:

Independent Variables – protective factors, risk factors, and resilience

Dependent Variables – depression, anxiety with somatization symptoms, and adaptation

Definition of Terms

The terms used in this study are defined as follows:

Resilience -- an individual's ability in the face of overwhelming adversity to adapt and restore equilibrium to his or her life and to avoid the potentially deleterious effects of stress (Wagnild & Young, 1993).

Protective Factors -- the circumstances that act preventively, without altering the risk factors themselves (Appleby, 1992) and characteristics of an individual, family, and environment that reduce the negative effects of adversity (Masten & Reed, 2002).

Risk Factors – emotional states, as well as activities and experiences, that can directly or indirectly endanger the health and well-being of a person and have the potential to result in personally, socially, or developmentally undesirable outcomes (Jessor, 1998).

Outcome/Adaptation – occurs at a specific point in time or as a trajectory that unfolds over a relatively lengthy period (Flynn, Ghazal, Legault, Vandermeulen, & Petrick, 2004) with either positive or negative outcome.

Research Hypotheses

In this study, following induced abortion, it is hypothesized that:

1. Individual protective factors are positively correlated with resilience.

2. Increased numbers of protective factors are positively correlated with resilience.

3. Individual risk factors are negatively correlated with protective factors and resilience.

4. Increased numbers of risk factors are negatively correlated with protective factors and resilience.

5. Positive outcomes are positively correlated with protective factors and resilience.

6. Individual negative outcomes are negatively correlated with protective factors and resilience.

CHAPTER 2

Review of the Related Literature

This chapter presents the literature review, whereby the relevant studies are directly linked to the research questions. This chapter begins with a discussion of the inconsistencies in the results that plagued the research studies on abortion and continues with a discussion of the concept of resilience, protective factors, risk factors, and outcome.

The reviewed studies on resilience are thus grouped in relation to the above stated hypotheses: (a) individual protective factors are positively correlated with resilience; (b) increased numbers of protective factors are positively correlated with resilience; (c) individual risk factors are negatively correlated with protective factors and resilience; (d) increased numbers of risk factors are negatively correlated with protective factors and resilience; (e) positive outcome are positively correlated with protective factors and resilience; and (f) individual negative outcomes are negatively correlated with protective factors and resilience.

Effects of Abortion on Psychological Well-Being

A thorough review of literature reflects inconsistencies in identifying the psychological effects women can suffer after an induced abortion. Some research studies confirmed the ill effects of induced abortion on the well-being of the women, while others refuted this premise.

Furthermore, a few studies concluded that there was no psychological impact on women after induced abortion. Kero, Hogberg, and Lalos (2004) studied reasoning, reactions, and emotions of 58 women four and twelve months following the induced

abortion. Out of 58 women, 46 did not experience any emotional distress following the induced abortion and reported that they coped well at the one-year follow-up. However, 12 of the 58 women had severe emotional distress four months after the induced abortion. The study demonstrated that the majority of women were generally able to make the complex decision to have an induced abortion without suffering any subsequent regret or negative effects, as ascertained at the one-year follow-up. Pope, Adler, and Tschann (2001) studied 96 women aged 14 to 21 years seeking counseling for unwanted pregnancies. The results indicated that adolescents under the age of 18 were less comfortable with their decisions than older patients were, but they showed no other psychological differences compared to those aged 18 to 21 years. Both groups showed significant improvement in psychological responses following the induced abortion. The study concluded that there was no evidence to suggest that induced abortion poses a threat to adolescents' psychological well-being.

Several studies contradicted the findings that women do not develop psychopathology after abortion. Broen et al. (2006) conducted a prospective, longitudinal follow-up study to assess anxiety and depression in women who had experienced either a miscarriage or an induced abortion six months and five years after the event. Women who experienced miscarriage (n = 40) and induced abortion (n = 80) were interviewed ten days (T1), six months (T2), two years (T3), and five years (T4) after the event. The results indicated that women who suffered miscarriage had significantly higher incidence of anxiety and depression at T1 than the general population. Women who opted for induced abortion had significantly higher anxiety rates at all-time points and more depression at T1 and T2, compared to the general population. In both groups, important predictors of anxiety

and depression at T2 and T4 were recent stressful life events and poor psychiatric health. Childbirth events between T1 and T4 had no significant influence on the scores. For women who had induced abortion, the doubt about the decision to abort was related to depression at T2, while a negative attitude towards induced abortion was associated with anxiety at T2 and T4. Cougle, Reardon, and Coleman (2003) compared depression in women with a history of induced abortion versus delivery by conducting a study on 1,884 women from the National Longitudinal Survey of Youth (NLSY) who experienced their first pregnancy event (abortion or childbirth) between 1980 and 1992. After controlling for several socio-demographic factors, women whose first pregnancies ended in induced abortion were 65% more likely to score in the high-risk range for clinical depression than participants whose first pregnancies resulted in a birth. The study concluded that induced abortion might be a risk factor for subsequent depression eight years after the pregnancy event. The identified higher rates of depression may be due to delayed reactions, persistence of depression, or some other common risk factor. Several studies have investigated the effects of miscarriages; however, the long-term health consequences of induced abortion are poorly investigated (Thorp et al., 2003). Furthermore, the few studies that did examine the psychological consequences of induced abortion reported contradictory results. To date, no study has explored the resilience in women who have had an induced abortion. Resilience may be the missing link that can elucidate the inconsistencies in the psychological findings in women who have experienced induced abortion.

Resilience

Resilience is described as "the positive pole of individual differences in people's response to stress and adversity" (Rutter, 1987, p. 316). Resilience theory has been described as a dynamic process (Luthar & Zelazo, 2003) or as a continuum (Block & Block, 1980) that consists of a constant cycle of shared transactions between the individual and the environment. Resilience is not the mere absence of risk, but rather the presence of protective factors that buffer the effects of adversity (Shiner, Masten, & Tellegen, 2002). A plethora of studies indicate that resilience occurs when there is a positive outcome, even if there are risk factors that can increase the probability of developing psychopathology (Luthar, Cicchetti, & Becker, 2000; Rutter, 2000; Masten & Reed, 2002) due the presence of protective factors that contribute to the increased resilience level and good outcome. The Model of Resilience – Expanded Version (M-REV) has four broad components: protective factors, risk factors, resilience, and outcomes. Appendix A shows the model that explains the influence of resilience after a stressful event – induced abortion.

Protective Factors

Protective factors are characteristics of an individual, family, and environment that reduce the negative effects of adversity (Masten & Reed, 2002). Risks factors tend to co-vary and can continue steadily over time or can be resistant to change; however, the presence of protective factors can moderate or decrease the effect of risk factors (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Some researchers contend that protective factors operate indirectly (Rutter, 1990) and must interact with risk factors to predict outcome (Garmezy et al., 1984; Rutter, 1987). Protective factors have additive

effects on resilience and positive outcome (Garmezy, Masten, & Tellegen, 1984; Masten et al., 1988). Hollister-Wagner, Foshee, and Jackson (2001) argued that the presence of protective factors exhibited the moderation effect, suggesting that the higher levels of protective factors could buffer or neutralize the risk factors and negative outcome. Protective factors work in an opposite direction of the risk factors to moderate their effects; thus, protective factors positively affect resilience and promote positive outcomes (Zimmerman & Arunkumar, 1994). Resilience is affected by the interaction of risk factors and the presence of increased number of relevant protective factors. According to Hollister-Wagner et al. (2001), risk factors and negative outcomes deteriorated or declined as the number of the protective factors increased. Therefore, the presence of higher levels of protective factors moderates or buffers the relation between the risk factors and negative outcome, while high numbers of protective factors positively contribute to the levels of resilience and positive outcome.

Various studies posit several protective factors that are positively associated with depression, anxiety, suicidal ideation or attempts, PTSD, use of addictive substances, and other psychopathology. The protective factors of interest in this study are hope, spirituality, self-efficacy, coping skills, social support from family, friends/peers, and community, and the effectiveness in obtaining resources.

Hope. Hope is defined as believing in oneself, having a sense of personal agency, and being optimistic about the future (Andresen, Oades, & Caputi, 2003). Morse and Doberneck (1995) defined hope as "a response to a threat that results in the setting of a desired goal; the awareness of the cost of not achieving the goal; the planning to make the goal a reality, the assessment, selection, and use of all internal and external resources and

supports that will assist in achieving the goal; and the reevaluation and revision of the plan while enduring, working, and striving to reach the desired goal" (p. 281). Hope can act as a cushion against the effects of risk factors on mental, behavioral, and physical health (Goldsmith et al., 2002). The presence of hope can decrease the risk for depression since this positive attribute may act as a protective factor during depressive states (Needles & Abramson, 1990). Psychology is concerned with the prevention of psychopathology and it has recognized that hope provides a psychological strength that cultivates physical, psychological, and spiritual well-being (Valle, Huebner, & Suldo, 2006). Valle et al. (2006) conducted a longitudinal study on adolescents from three public middle schools. The researchers found out that those adolescents who reported higher levels of hope also reported higher levels of global life satisfaction after one year. They further upheld the hypothesis that high levels of hope acted as a protective factor against stress or adverse life events and provided positive mental health outcomes. Thompson, Kaslow, Short, and Wyckoff (2002) studied 1,287 high school students who were struggling in school and found that hopelessness had a direct effect on depression and suicidal behaviors. Another large study on students established that hope was a major influence on depression and suicidal behaviors (Perkins & Hartless, 2002). Csorba, Rozsa, and Gadoros (2003) studied 51 suicidal and 81 non-suicidal patients and discovered that hope and self-efficacy could decrease the probability of fighting and self-injurious behavior.

Spirituality. Spirituality is a unique and individual characteristic that may or may not include a belief in "God"; however, it is responsible for linking the "me" with the universe and with others (Sullivan, 1993). Shaw (2005) has defined spirituality as, "a

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personal resource to deal with the limitations of the life cycle, separation and loss, biological fragility, transience, and non-existence" (p. 350). Numerous definitions of spirituality are found in the literature; however, the lack of consensus prevails (Chiu, Emblen, Van Hofwegen, Sawatzky, & Meyerhoff, 2004). Thus, the words "spirituality" and "religiosity" are often used interchangeably, implying the possibility of parallel origins. In contrast, religiosity consists of the belief in and practice of the fundamentals proposed by a religion (Miller, 1998). Some scholars point out the importance of distinctly defining spirituality out of respect for religion, but they all agree that both spirituality and religion are beneficial to health and well-being (Moss, 2002). However, some researchers have disputed the contention of distinctly separating spirituality from religion, since the difference in the terms "religious" and "spiritual" are simply academic and not a mirror image or true reflection of the real differences among the lay people (Pargament, 1997). Regardless of the differences between spirituality and religiosity, this study focuses mainly on the spiritual, since this is the epitome of who we are as human beings (Nussbaum, 2003). Furthermore, this approach avoids bias among religious denominations. Spirituality imparts a buffering effect in overcoming suffering, pain, despair, and assists in coping with adverse life events, including serious illness and impending death (Ferrell & Coyle, 2008; Chiu et al., 2004; Gall et al., 2005; Puchalski, 2004; Dobratz, 2002). Spirituality is important as a coping resource for families dealing with serious illness of a child and reduces the symptoms of depression among mothers caring for their sick child (Garrison, Marks, Lawrence, & Braun, 2004). Cardella and Friedler (2004) studied the psychological distress among the166 parents caring for their children with cancer in relation to their spirituality. The researchers reported that the

parents who were spiritual showed less psychological distress, fostered positive attitude towards life, and exhibited positive outcomes. Koenig, McCullough, and Larson (2001) asserted that adults with higher levels of spirituality recuperated faster, were less depressed, and had better health-related quality of life (HRQOL) than those with lower levels of spirituality. Likewise, adolescents who reported having higher levels of spirituality were less likely to engage in risky health behaviors and have demonstrated more positive mental health outcomes (i.e. less depression and anxiety) compared to their peers who had lower levels of spirituality (Bridges & Moore, 2002). Using spirituality as a coping strategy is linked with the development of positive physical and psychological well-being among adults. Similarly, underutilizing spirituality to cope with negative life events can result in poorer physical and psychological outcomes (Pargament, Koenig, & Tarakeshwar, 2004). Spirituality has been proven effective in improving health and in increasing positive coping skills (Koenig, 2000). It is also linked with positive quality of life (Tarakeshwar et al., 2006) and acts a mediator between optimism and depression (Boscaglia, Clarke, Jobling, & Quinn, 2005; Mofidi et al., 2007). A considerable number of research studies found a protective effect of spirituality on the physical and mental health of African Americans (Taylor, Chatters, & Levin, 2004; Williams, 1997). Spirituality moderates the effect of negative outcomes among adolescents who abused substances due to exposure to stressful life events (Wills, Sandy, Shinar, & Yaeger, 1999). Similarly, adolescents whose parents abused substances are protected from negative outcomes because of spirituality (Brook et al., 2001).

Self-efficacy. Self-efficacy, or pronounced optimism and the feeling of being in control of oneself, in conjunction with coping abilities have significant protective factors.

Studies on children and adolescents reveal that internal attributes, such as self-efficacy or self-esteem and coping skills, are associated with positive outcomes (Lin et al., 2004; Cauce et al., 2003; Luthar & Zigler, 1992). Some adolescents living in poverty display positive outcomes due to high levels of self-efficacy or self-esteem (Buckner et al., 2003). In contrast, depressed adolescents have low levels of self-efficacy and self-competence (Greenberger, Chen, Tally, & Dong, 2000; Alva & de los Reyes, 1999). Studies find that adolescents who engaged in substance abuse due to negative or stressful life events were protected from the negative outcomes because of their high level of self-efficacy and self-esteem (Byrne & Mazanov, 2001; Scheier, Botvin, & Miller, 1999). The presence of self-efficacy or self-esteem protected the adolescents against substance use and promoted the use of condoms, safer sex intentions, and refusal of drug use (Malow, Devieux, Jennings, Lucenko, & Kalichman, 2001; Santelli et al., 2004). Individuals who have high self-efficacy and think that they have control over the circumstances in their lives respond less negatively to adverse events and have better coping skills and abilities to problem-solve. Piquet and Wagner (2003) studied adolescents hospitalized following a suicide attempt and found that they had shown hardly any "effortful-approach" responses to stress (taking direct action, seeking support) and demonstrated significant "automatic-approach" responses (aggressive, impulsive, or destructive behaviors) compared to adolescents who were non-suicidal.

Coping skills. Coping skills are skills that we utilize to counterbalance or overcome adversities. Tak and McCubbin (2002) have defined coping as "a process by which individuals or families engage in direct response to excessive demands and depleted resources, realizing that systemic changes are needed to restore some functional stability

and improve individual and family satisfaction in the face of a stressor" (p. 192). Coping skills, including decision-making skills, protect adolescents against peers who abuse substances (Botvin, Malgady, Griffin, Scheier, & Epstein, 1998). Coping strategies are linked to positive outcomes in children (Masten & Powell, 2003); in older children, studies associate coping skills with positive outcomes including social competence, school grades, and positive internalizing and externalizing behaviors (Lin et al., 2004; Cauce et al., 2003).

Social support. Social support refers to the degree to which individuals are in close personal social networks that can provide a source of support in difficult times (Hammer & Marting, 1988). In spite of growing up in poverty, many children and adolescents cope positively because of the presence of an adult mentor (Zimmerman, Steinman, & Rowe, 1998) who can help prevent the negative outcomes associated with poverty. Parental support, including family connectedness (Fleming et al., 2002; Lloyd-Richardson, Papandonatos, Kazura, Stanton, & Niaura, 2002), parental involvement in adolescents' education (Fleming et al., 2002), parental monitoring (Fleming et al., 2002; Griffin et al., 1999), and open communication with parents (Stanton et al., 2002) are promotive or protective factors for adolescents who abuse substances. Insufficient social relationship with parents and lack of family support, repeatedly intensified by lack of social interactions among the family members, are prevalent in adolescents with high level of depression (Olsson, Nordstrom, Arinell, & von Knorring, 1999). Parental closeness, open communications with parents and teachers, and good peer relations are protective factors among adolescents against poor psychosocial health and depression (Piko, 2000; Twemlow, Fonagy, & Sacco, 2001). Research studies on African American women

revealed consistent findings that social support provided by family and friends had a buffering effect on poverty and mental health (Belle & Doucet, 2003; Hobfoll, Johnson, Ennis, & Jackson, 2003; Taylor et al., 2004). Low levels of social support are strongly linked to suicidal ideation and attempts (Turvey, Stromquist, Kelly, Zwerling, & Merchant, 2002; Compton, Thompson, & Kaslow, 2005). In a study of 14,922 students, Perkins and Hartless (2002) emphasized that family support was a negative predictor of suicide. Some studies have shown that family support, such as connectedness and cohesiveness, is a protective factor against suicidal behaviors (Flouri & Buchanan, 2002; Brent, 1995; Anteghini, Fonseca, Ireland, & Blum, 2001; Neumark-Sztainer, 1999). Connectedness to friends and peers and social acceptance among peers are protective factors against suicidal behaviors (Bearman & Moody, 2004; Anteghini et al., 2001; Field, Diego, & Sanders, 2001; Prinstein, Boergers, Spirito, Little, & Grapentine, 2000).

Using assets or resources. Using assets or resources (Zimmerman et al., 1998) can be beneficial in overcoming risk factors and is thus a protective factor and a sign of resilience. Borowsky et al. (2002) studied 13,781 adolescents over a period of two years and found that cumulative measures of ability to obtain assets and resources could mitigate the cumulative negative effects of risk factors. Masten (1999) hypothesized that a resilient individual was less susceptible to the impact of traumatic events because they used accessible resources, compared to a non-resilient individual. The overwhelming burden of obtaining the necessary resources for living had deleterious impacts on the mental health of an individual, leading to a range of negative outcomes, including depression (Ennis, Hobfoll, & Schroder, 2000). Decreased access to resources, inadequate food supply, poorly maintained housing, and transportation problems could

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increase the probability of exposure to chronic and acute stressors (Belle & Doucet, 2003; Siefert, Bowman, Heflin, Danziger, & Williams, 2000) and the adverse effects on mental health (Heflin, Siefert, & Williams, 2005; Siefert, Heflin, Corcoran, & Williams, 2004).

Protective factors can compensate or counteract the effects of risk factors. Adolescents living in poverty have increased probability of exhibiting behavior problems including violence (Edari & McManus, 1998); however, the presence of social support through adult monitoring compensates for the negative effects of poverty. Higher level of protective factors, or the presence of more protective factors (Brook, Whiteman, Gordon, & Cohen, 1989), can reduce the effects of the risk factors and promote resilience and positive outcomes. The presence of both parental support and self-efficacy in a child promote increased levels of resilience and produce positive outcome in spite of living in poverty, compared to the presence of only one protective factor. Therefore, the presence of several relevant protective factors or higher levels of protective factors can moderate or buffer the correlation between the risk factors and negative outcome, while increased number of protective factors can increase the level of resilience and increase the likelihood of positive outcome.

Risk Factors

Risk factors are emotional states, activities, and experiences that can directly or indirectly endanger the health and well-being of a person and can potentially result in personally, socially, or developmentally undesirable outcomes (Jessor, 1998). Risk factors are aspects of an individual's environment that are associated with poor outcomes (Garmezy & Rutter, 1983; Werner, 1995). Unlike protective factors that can improve or transform an individual's response to stressors that can cause negative outcomes (Rutter,

1985), risk factors have direct effects on the development of psychopathology (Rutter, 1990) and negative outcomes by decreasing the level of resilience and increasing the probability of developing psychopathology (Masten & Gamerzy, 1985). Rutter (2000) argues that there is a relatively small correlation between risk factors and negative outcomes; nonetheless, risk factors do not exist by themselves. Risk factors do not become apparent in isolation, instead they tend to come together and intermingle. Leventhal and Brooks-Gunn (2000) explained further that a correlation exists between living in a low-income neighborhood and lower educational attainment, exposure to deviant peers, decreased access to resources, and higher levels of negative life events. Risk factors have tendency to be cumulative and stable (Ruther, 2000). Aside from the cumulative effect of risk, the high continuity over time also amplifies its impact (Sameroff, Seifer, Baldwin, & Baldwin, 1993), thereby decreasing resilience and increasing the probability of negative outcomes (Fergusson & Lynskey, 1996; Ruther, 2000). These authors studied the relationship of stability of risk and Intelligence Quotient (IQ) between the ages of four and thirteen and found that the longer a child was subjected to high levels of risk, the higher the probability that important developmental processes would be interrupted and harmful behavior would develop. Studies on children living in extreme or chronic poverty have identified high incidence poor negative outcomes compared to children who experienced less severe or intermittent poverty (Duncan, Brooks-Gunn, & Klebanov, 1994; Korenman, Miller, & Sjaastad, 1995). When several risk factors occur simultaneously, the prevalence of psychopathology increases exponentially, as the level of resilience declines. In the presence of higher level of risk factors, the level of protective factors is decreased (Luthar & Cicchetti, 2000; Dubow,

Edwards, & Ippolito, 1997) and reveals lower levels of resilience (Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999). Moreover, several studies show that cumulative risk is strongly associated with negative outcomes and that the probability of a negative outcome increases with the number of risk factors (Fergusson & Lynskey, 1996; Rutter, 2000). Therefore, as the number of risk factors increases, the level of resilience decreases while the probability of developing negative outcomes increases.

The risk factors of interest in this study are lower educational level, history of mental and physical illness, parental history of psychiatric disorder, family breakdown and parental conflicts, poverty and socio-economic disadvantage, and the presence of stressful life events.

Educational status. Studies that focus on the cognitive ability of children resulted on the same findings. Lower intellectual level demonstrates an increased risk for antisocial behavior (Moffitt, 1990). Childhood and adolescent behavioral problems, such as hostility, physical aggressiveness, impulsivity, hyperactivity, and non-conformity with adults are associated with poor academic performance (Arnold & Doctoroff, 2003; Shumow, Vandell, & Posner, 1999; Farmer, 1995; Hinshaw, 1992). Depressed adolescents typically have unsteady school achievement (Greenberger et al., 2000; Alva & de los Reyes, 1999); similarly, empirical studies illustrate that poor academic achievement is an important risk factor for depression in adolescents (Formoso, Gonzales, & Aiken, 2000; Knox, King, Hanna, Logan, & Ghaziuddin, 2000). Children's emotional, cognitive, and intellectual problems are linked to post-natal depression among their mothers in developing countries (Cooper & Murray, 1998). In contrast, intelligence or cognitive skills are linked with resilience (Garmerzy et al., 1984; Werner, 1989;

Zimrin, 1986). Studies on post-traumatic stress disorders (PTSD) identify risk factors

that include pre-trauma variables, such as lower educational level and lower intelligence

(Kessler et al., 1999; Orr et al., 1998) that exist prior to incidence of trauma.

History of mental and physical illness. A history of mental and physical illnesses

(Luthar & Sexton, 2007) relates to genetic and environmental risk factors. Mental health

disorders are related to the negative effect on the individual involved as well as his or her

relationships with family and peers (Costello et al., 2005; McLeod & Kaiser, 2004; Patel,

Flisher, Hetrick, & McGorry, 2007). The presence of medical problems in early

childhood is a risk factor linked with poor outcomes in children and adolescents (Lavigne

& Faier-Routman, 1992). Mental health disorder associated with behavior problems (e.g.

aggressiveness or minor delinquent activities) is also linked with adolescent depression

(Knox et al., 2000).

Parental history of mental disorders. Parental psychopathology (Conrad &

Hammen, 1993; Luthar & Sexton, 2007) is associated with genetic risk factors. A

considerable number of genetic research studies show an average degree of heritability

for delinquent behavioral problems from childhood to adulthood (Taylor, Iacono, &

McGue, 2000; Eley, Lichenstein, & Stevenson, 1999). Civic and Holt (2000) studied a

nationally representative sample of mothers in the US and found that mothers who

exhibited depressive symptoms reported having children with behavioral problems.

Hereditary factors and/or in utero experiences predisposed some children to externalizing

behavior problems (Cole & Dodge, 1998; Fowles, 2001). Research studies on behavioral

genetics revealed that genetic factors accounted for the development of various

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characteristics including impulsivity, tendency toward addiction, temperament, attention deficit, and other behavior problems (Miles & Carey, 1997).

Family breakdown/conflict. Parental stress (Leadbeater & Bishop, 1994), conflict and violence within the home, including violence between parents and inter-parental conflicts (Davies & Windle, 2001; Formoso et al., 2000; Abidin, Jenkins, & McGaughey, 1992; McCloskey, Figueredo, & Koss, 1995), conflicts and violence outside the home, as well as cruel parental discipline and physical abuse (Dodge, Pettit, & Bates, 1994; Fisher & Fagot, 1993) are risk factors associated with hyperactivity, hostility, impulsivity, adverse temperament, and other behavior problems in children and adolescents. Lack of warmth between the parent and the child increases the development of antisocial behaviors in children (McFadyen-Ketchum, Bates, Dodge, & Pettit, 1996). Studies show that family stress and parent-child conflict could cause lower sense of control among depressed adolescents (Olsson et al., 1999, Knox et al., 2000). Studies conclude that poor family environment due to family breakdown and parental conflicts are associated with suicidal behaviors (King et al., 2001; Breton et al., 2002). High school students who exhibit suicidal behaviors reported a weaker relationship with their parents (Wichstrom, 2000), while family dysfunction (history of discord among family members, chronic instability) correlates with suicide (Werenko et al., 2000).

Presence of stressful life events. Presence of stressful life events is a risk factor in the development of irritability, hostility, and physical aggressiveness in children and adolescents (Abidin et al., 1992). Chronic exposure to stress or traumatic adversities can have immediate negative effects that dispel easily or result in lingering negative outcomes (Bonanno, 2004; Rosenthal, Feiring, & Taska, 2003). Stress or negative life

events are strongly linked to mental disorders, including suicidal behaviors (D'Imperio et al., 2000). Insufficient food for the entire family and economic deprivation are stressful life events that increase the pathway to depression among women (Heflin et al., 2005; Siefert et al., 2004). Beautrais (2003) compared suicidal and non-suicidal individuals and discovered that that risk of suicide is associated with recent stressful life events, such as interpersonal struggles or difficulties with work, finances, and legal matters. King et al. (2001) found out that there was a major relationship between suicidal tendencies and adverse life events among a random sample of children between nine and seventeen years old.

Socio-economic disadvantage. Socio-economic and cultural risk factors in the development of adverse temperament and resistance to external control among children and adolescents include: poverty (Huston, McLoyd, & Coll, 1994), poor family structure, such as living in a single-mother home (Achenbach, Howell, Quay, & Conners, 1991; Duncan et al., 1994), or single-parent (Ackerman, D'Eramo, Umylny, Schultz, & Izard, 2001), young age of the mother and lack of preparedness for the pregnancy (Williams, Anderson, McGee, & Silva, 1990), and social isolation (Leadbeater & Bishop, 1994). Adolescents living in poverty are linked with a number of negative outcomes like poor academic achievement (Arnold & Doctoroff, 2003; Shumow et al., 1999) and aggressive behavior (Dornbusch, Erickson, Laird, & Wong, 2001; Edari & McManus, 1998). In his study on the origins of depression, Brown (2002) remarked that poverty was a major risk factor for depression. Socio-economic disadvantage (Buckner et al., 2003; Kim-Cohen et al., 2004) is also linked with psychopathology and suicidal behaviors. Adequate family income was, however, found to neutralize the association between neighborhood

difficulties and alcohol and marijuana abuse (Duncan, Duncan, & Strycker, 2000). In contrast, family's low socio-economic status negatively affects the sexual behaviors of secondary school students (Magnani, Seiber, Gutierrez, & Vereau, 2001). Volatile peer relationships and social rejection by peers are associated with the development of antisocial behaviors in children and adolescents (Hymel, Rubin, Rowden, & LeMare, 1990).

Resilience is a concept found to moderate the impact of risk factors and adversities. However, risk factors are variables that can increase the probability of developing psychopathology (Masten & Garmezy, 1985). Several studies revealed that the presence of high level of risk factors significantly lowers the levels of protective factors (Luthar & Cicchetti, 2000; Dubow et al., 1997) and decreases the resilience levels (Miller et al., 1999). These studies explain that the likelihood of an individual exhibiting self-efficacy or internal locus of control is markedly reduced if there are an increased number of uncontrollable chronic risk factors, compared to an individual whose life was uneventful. As the number of risk factors increases, the resilience level decreases and the likelihood of developing negative outcomes rise.

Outcome/Adaptation

An outcome of resilience occurs at a specific point in time or as a trajectory that unfolds over a relatively lengthy period as either positive or negative outcome (Flynn et al., 2004). Exposure to a considerable risk or adversity and the achievement of positive outcome or adaptation are the two essential criteria that are compulsory before an individual is said to have attained the resilient outcome or trajectory (Flynn et al., 2004). Resilience is associated with a good outcome in the face of adversities (Rutter, 2000).

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Resilience or lack thereof can, thus, lead to either positive or negative outcomes, such as coping well with an adverse traumatic event; averting a negative outcome, such as depression or anxiety; or succumbing to adversities and eventually developing psychopathology.

Positive outcome. Positive adjustment is the result or outcome of resilience, whereas resilience is the course or the process of overcoming the risk. Positive outcome is defined as the absence of a psychiatric disorder and the presence of good functioning on a psychiatric assessment (Tiet et al., 2001). Masten et al. (1999) studied children from elementary school to early adulthood and found that 57% of the children were resilient due to the presence of protective factors, in spite of being exposed to high levels of adverse life events. Likewise, Tiet et al. (2001) studied 1,285 children and found that 62% of the girls and 50% of the boys whose mothers had major psychopathology were considered resilient because of the protective factors. However, more recent studies pointed out that to be resilient an individual needs to have three or more protective factors of any type (Cicchetti, Rogosch, Lynch, & Holt, 1993; Cicchetti & Rogosch, 2007). The studies determine that even in the presence of three or more protective factors, children exposed to the highest level of risk factors have lower level of resilience and higher probability to have decreased rates of positive outcomes.

Negative outcome. Negative outcomes can occur after an individual succumbs to adversities and eventually develops psychopathology. Thus, individuals with fewer than three protective factors will exhibit no positive outcomes when faced with the highest level of risk (Cicchetti et al., 1993; Cicchetti & Rogosch, 1997; Buckner et al., 2003; Luthar & Sexton, 2007; Cicchetti & Rogosch, 2007) and will ultimately develop negative

outcomes. The study of Cicchetti et al. (1993) that focused on low-income children who experienced maltreatment across three consecutive years was replicated twice (Cicchetti & Rogosch, 1997, 2007). These studies revealed that only 10% of the maltreated children were considered resilient at any of the three time points, while 10% of the maltreated children noticeably demonstrated no resilience at any of the three time points. Moreover, individuals who had lower levels of resilience exhibited negative outcomes and subsequently developed higher levels of psychiatric symptoms.

Numerous studies concluded that risk factors, such as stressful, adverse life events, increased the chances of psychiatric symptoms and disorders (Brown, 1993; Brown, Harris & Hepworth, 1994; Kendler et al., 1995). As risk factors tend to co-vary and can continue steadily over time or can be resistant to change (Jessor et al., 1995), the cumulative risk factors increase the probability of negative outcomes (Rutter, 2000), resulting in insurmountable struggles to stay resilient. They are further exacerbated by the presence of decreased recurrence of protective factors in high-risk situations that decrease the probability of positive outcomes. Therefore, as the number of risk factors increases, the resilience levels decrease and the likelihood of positive outcomes also decreases dramatically, while the probability of negative outcomes increases considerably.

CHAPTER 3

Theoretical Framework

Evolution of Resilience

Research on resilience can be summarized as "three waves of resilience inquiry" (Richardson, 2002), with the first wave defined as an individual trait, the second being a process, and the third wave of resilience inquiry identifying the motivational forces within the individuals and groups.

Resilience as a trait. The concept of resilience was first introduced in reference to a stable personal quality or characteristic. Richardson (2002) described the first wave of resilience inquiry as the resilient characteristics present in the individuals and support systems that could promote positive adaptation in stressful events socially and personally. Resilience studies initially concentrated on factors and characteristics that assisted individuals in coping with adversity (Garmerzy, 1991; Rutter, 1985). In the 1970s, resilience research described genetic and experiential circumstances as factors that increased the risk of experiencing problems and developing psychopathological conditions in children (Masten, 2001). In spite of the risk factors of poverty, parental psychopathology, family discord, and poor child-rearing conditions, one-third of the children who were born in Kauai, Hawaii in 1955 were found to be resilient and they remained resilient as adults (Werner, 1995). Garmezy et al. (1984) posited that children who had the personality traits of good problem-solving skills, positive outlooks, internal locuses of control, self-esteem, and humor became warm and competent adults.

Some researchers believed that resilience was an individual trait (Tarter & Vanyukov, 1999). Caspi and Silver (1995) explained that resilience as a trait was attributed to the

biological and/or genetic basis and was deemed rather stable over time. Nonetheless, resilience is not a static trait (Kaplan, 1999) or a characteristic that assists individuals to overcome adversities (Garmezy, 1991; Rutter, 1985). The assumption that resilience is a static individual trait implies that it is an absolute and may not be changeable. Consequently, it places the fault on the individual for succumbing to the adversity (Fergus & Zimmerman, 2005). Researchers have advocated the rejection of the use of the term "resiliency" to spurn the impression that resilience is an individual trait that may further encourage placing guilt on individuals for their negative outcomes (Luthar et al., 2000).

Resilience as a process. The second wave of resilience inquiry described the process or the mechanism of attaining the recognized resilient characteristics in the first wave of inquiry (Richardson, 2002). Gradually, researchers recognized that resilience was not a static trait and thus cannot be simply defined as the quality or trait of the individual that is present in the circumstances. Resilience is a dynamic and modifiable process (Luthar et al., 2000) that focuses more on the adaptive outcomes, protective processes, and protective factors (Rutter, 1990; Garmezy, 1993; Fraser et al., 2004).

The concept of resilience involves protective factors that must interact with risk factors to predict outcome (Garmezy et al., 1984; Rutter, 1987). Likewise, resilience is developed through the interactions between risks and protections using the constant blend of capacities and knowledge (Saleebey, 1996). Dyer and McGuinness (1996) posited that resilience is a dynamic process and defined resilience as the ability to bounce back or recover from adversity and move forward.

Resilience as activation of motivational forces. The third wave of resilience inquiry is the identification of the motivational forces within the individuals and the conception of events that directed the initiation and application of the innate forces (Richardson, 2002). As the second wave expanded to highlight identification of the motivational forces, in contrast, Kumfer and Bluth (2004) asserted that it was more problematic to quantify resilience as an innate force. Resilient processes are not peculiar phenomena or experiences of human functioning; they are innate self-righting mechanisms or adaptive strategies that lead individuals to an adaptive path following stressful events (Luthar et al., 2000; Werner & Smith, 1992). Masten (2001) explained that resilient functioning and processes are ordinary magic. "Individuals are capable of astonishing resistance, coping, recovery, and success in the face of adversity, equipped only with the usual human adaptational capabilities and resources, functioning normally" (Masten & Powell, 2003, p. 15).

Resilience is a continuum (Block & Block, 1980) that consists of a constant cycle of shared transactions between the individual and the environment. Everall, Altrows, and Paulson's (2006) qualitative study on resilience as a motivational force on the triumph of thirteen previously suicidal adolescent females triumphed over suicide. The authors identified four emerging themes: (1) social processes – the readiness to look for social support and assistance; (2) emotional processes – the readiness to vigorously feel or experience, communicate, and control one's emotions; (3) cognitive processes – the aspiration to have personal control over one's life; and (4) purposeful action – to engage in active actions to transform life. The study further emphasized that resilience is a

dynamic and modifiable process that reveals itself over time and it necessitates a shared interface between an individual and the environment.

Resilience as a Concept

There are many diverse and challenging definitions of resilience in extant literature, making this concept thought provoking and widely debated (Kaplan, 1999, 2005; Gillespie, Chaboyer, & Wallis, 2007). The studies on resilience are plagued with a lack of a consistent operational definition (Nagliere & Lebuffe, 2005; Tedeschi & Kilmer, 2005), as they stem from the variety of scientific orientations in each discipline (Gillespie et al., 2007).

Kaplan (1999) proposes four causes of the inconsistencies in the definition of resilience. The first cause is the lack of distinction between resilience and outcome. For example, some researchers describe resilience as an outcome that means enduring or overcoming adversity. Other scholars characterize resilience as the cause or influence of the outcome. The second stems from differentiation between outcomes based on different criteria. For instance, resilience can be described as the absence of psychopathology in an adolescent with parental history of psychiatric disorders, or absence of clinical psychopathology, or even as the aversion of aggravating maladaptive behavioral trajectories (Fergus & Zimmerman, 2005). However, some scholars define resilience as having achieved high academic or scholastic performance in a child. The third cause is the variance in the definition of protective factors – the attributes of resilience that influence the outcome. For example, several researchers distinguish resilience using protective factors as a static individual trait, whereas others define resilience as a process. Finally, the fourth cause is the variance in the risk factors,

whereby some researchers believe that resilience is manifested in individuals that have some antecedent risks but have managed to attain positive or adaptive outcomes in spite of adversity. Others, on the other hand, described the outcomes of resilience based on the risk factors. Consequently, the definitions of resilience are extremely inconsistent, as the risk factors are highly variable (Kaplan, 1999).

Early Models of Resilience

Over the last four decades, the concept of resilience has evolved. During this time, several researchers proposed three models of resilience – compensatory, protective, and challenge models – to explicate how promotive (protective) factors interact with risk factors to change or amend the negative outcome (Garmezy et al., 1984; Rutter, 1985; Zimmerman & Arunkumar, 1994). The first model, compensatory model of resilience, shows when the promotive factors neutralize or reduce the effect of the risk factors by working at exactly the opposite direction of the risk factor. In this case, the effect of the risk factors is completely unrelated to the effect of the compensatory/protective (assets or resources) factors. For instance, there is an increased likelihood for an adolescent who grew up in poverty to engage in violent behaviors compared to more affluent adolescents (Edari & McManus, 1998). However, the presence of an adult mentor who monitors the adolescent may compensate for the negative outcome of the life in poverty. This model explains the distinctive effects that the risk factor and protective factor have on the outcome.

The second model of resilience is the protective model. It illustrates how the promotive/protective factors (assets or resources) regulate or buffer the effects of the risk factors on the negative outcome. For example, adolescents with high levels of protective

factors in the form of parental or adult support can moderate the effect of the risk of living in poverty and potentially avoid the negative outcome of violent behavior. This model simply illustrates the buffering effect of the protective factor on the relationship between the risk and the negative outcome.

The challenge model, the third model of resilience, posits that the relationship between the risk factors and the negative outcome is curvilinear. Based on this model, the presence of moderate levels of risk factors is associated with less negative (or positive) outcomes, whereas the presence of extreme levels (low or high levels) of risk factors will increase the likelihood of negative outcomes. For example, in the presence of moderate risk factors, adolescents are able to learn how to reverse or overpower the negative effects of the risk factors. However, in the presence of high levels of risk factors, adolescents may become overwhelmed and eventually succumb to their negative effects. Adolescents who grew up with few challenges inside the home are not exposed to more opportunities to learn how to cope with difficulties and family conflicts at home and consequently may not be able to solve conflicts or problems outside the home. However, the presence of high levels of family conflicts can incapacitate an adolescent, causing hopelessness and development of negative outcomes. This model shows that low and high levels of risk are closely related with negative outcomes. On the other hand, a moderate level of risk is related with good or positive outcomes. Additionally, moderate level of risk offers moderate or right amount of learning experiences for coping with and prevailing over risk (without feeling overwhelmed), which eventually leads individuals to be better equipped to face adversities later on in their lives and remain resilient.

Model 1: Compensatory

Risk

Negative

Compensatory Factor

Model 2: Protective

$+$

Risk ——————————— Negative Outcome

Protective Factor

Model 3: Challenging

Negative Outcome

Risk →
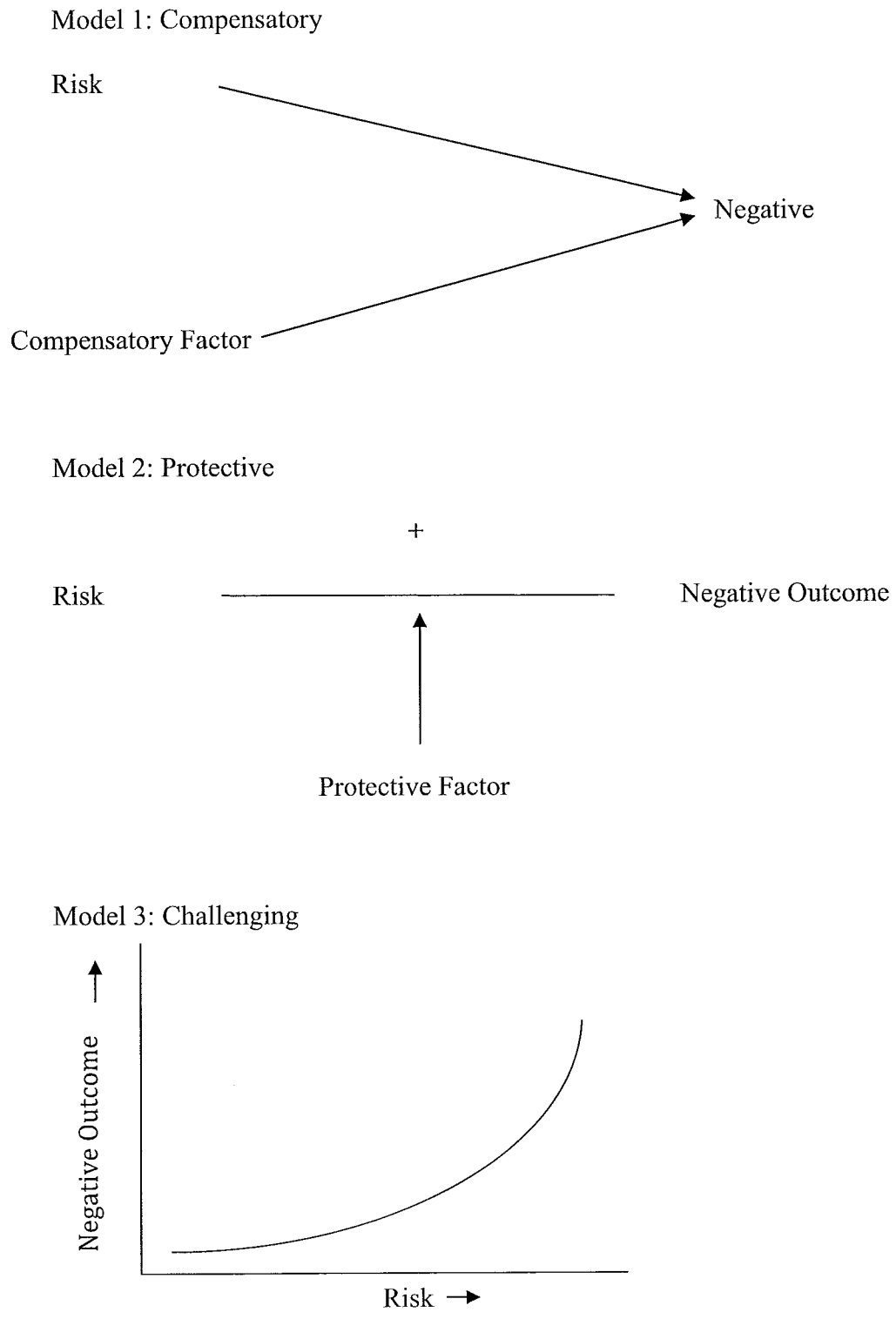
Figure 1. The Early Models of Resilience

Expanded Model of Resilience

To address the inconsistencies in the extant literature on resilience, this study proposes an expanded model of resilience named "Model of Resilience - Expanded Version (M-REV)" with the hope that it can remedy the problems that exist in the studies on resilience.

Previous studies on resilience that used the available models of resilience were rather inadequate, as most researchers investigated only a single risk factor and a single promotive factor (Wong, Eccles, & Sameroff, 2003). However, individuals are essentially subjected to multiple risk factors and are influenced by multiple promotive (protective) assets and/or resources (Glantz & Sloboda, 1999; Sameroff, Gutman, & Peck, 2003). Contrary to the early findings on resilience, risk factors and protective factors do not work independently; instead, they interact to reciprocally impact each other in each individual (Gutman, Sameroff, & Eccles, 2002; Luthar et al., 2000; Olsson, Bond, Burns, Vella-Brodrick, & Sawyer, 2003; Sameroff et al., 2003). Thus, in order to gain better understanding of resilience theory, researchers must include cumulative risks, assets, and resources in their studies (Cicchetti & Rogosch, 2002; Sameroff et al., 2003; Yates, Egeland, & Sroufe, 2003).

Furthermore, the process or mechanism of this concept must be precisely defined and measured. This study addresses the inconsistencies in the study of resilience: (1) The M-REV proposes that the concept of resilience should be specifically measured to establish its own operational identity and differentiate it from protective factors, risk factors, and outcomes. (2) In order to demonstrate that resilience is a dynamic, modifiable process that involves the interactions between risk factors, protective factors and outcomes, this

study proposes to evaluate a number of risk factors and protective factors along with resilience, so that the mechanism of the phenomenon is better understood. This process addresses the issue of inadequate studies that only investigated a single risk factor and a single promotive factor. Individuals are essentially subjected to multiple risk factors and influenced by multiple protective factors; thus, to enhance the richness of this concept, M-REV will investigate several protective and risk factors. (3) The M-REV revises and expands the models of resilience by the inclusion of positive outcome as another possible effect, instead of only focusing on the negative outcomes to illustrate the influences of resilience. Research on the experience of resilience must broaden its focus to encompass not only the understanding of maladaptive behaviors and negative outcomes, but also understand the mechanism that promotes the adaptive or positive outcomes. This approach will empower researchers and clinicians to examine the individual development through the eyes of adaptation rather than risk and deficits. This revised and expanded model will give health care clinicians important information on how to intervene when individuals are at risk for negative outcomes after experiencing a significant life event, such as an induced abortion.
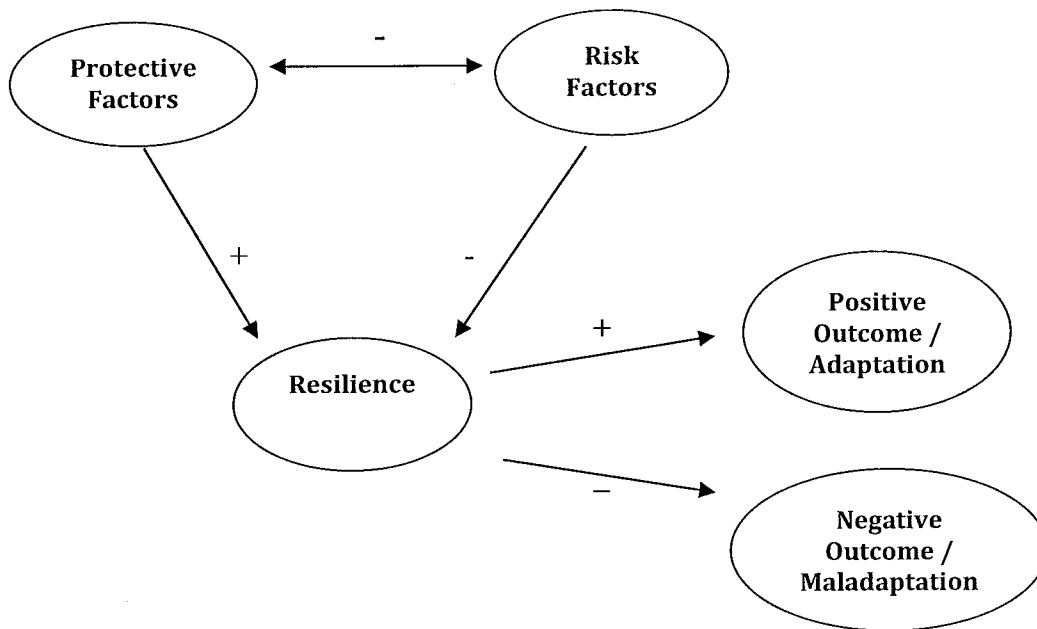
Figure 2. Model of Resilience – Expanded Version (M-REV). Positive sign (+) = positive correlation; negative sign (-) = negative correlation

In this study, the components for the Model of Resilience – Expanded Version (M-REV) have been adapted, generated, revised, and expanded based on the resilience literature. The proposed components of M-REV are resilience, protective factors, risk factors, and positive or negative adaptations as potential outcomes.

Resilience

Rutter (1985) defines resilience as the ability to bounce back or cope successfully despite substantial adversity. In addition, resilience has often been defined as the ability to achieve a relatively good outcome even though an individual may experience situations that have been shown to carry significant risk for developing psychopathology (Luthar et al., 2000; Masten & Reed, 2002). This research study defines resilience as an

individual's ability to adapt and restore equilibrium to his or her life in the face of overwhelming adversity and to avoid the potentially deleterious effects of stress (Wagnild & Young, 1993). Indeed, resilience operates indirectly, with its effects apparent only by virtue of their interactions with other variables (Rutter, 1987) and has been described as both a continuum (Block & Block, 1980) and as an aggregate of resources, such as social intimacy and resourcefulness (Kadner, 1989). Resilience is positively affected by the presence of protective factors that can lead to a positive outcome, or moderate or prevent a negative outcome (Fergus & Zimmerman, 2005).

Protective Factors

In the M-REV, protective factors have a positive influence on resilience. In the presence of considerable risks, protective factors are circumstances that act preventively without altering the risk factors themselves (Appleby, 1992). When present, protective factors can lead to a positive outcome or moderate or prevent a negative outcome (Fergus & Zimmerman, 2005) by increasing the level of resilience. Protective factors were also posited to have additive effects on resilience and positive outcome (Garmezy et al., 1984; Masten et al., 1988). Gutierrez, Rodriguez, and Garcia (2001) defined protective factors as external (social support, peer, and family accord) and internal (resiliency, positive self-concept, and emotional stability). Resilience is affected by the interaction of risk factors and the presence of increased number of relevant protective factors, whereby risk factors and negative outcomes deteriorated or declined as the number of the protective factors increased (Hollister-Wagner et al., 2001), exhibiting additive effects on the level of resilience.

The protective factors of interest in this study include the presence of self-efficacy (or self-esteem) which is the feeling of being in control of oneself (Fergusson, Beautrais, & Horwood, 2003; Thompson et al., 2002; Bradley & Corwyn, 2001); coping skills or strategies (Fergusson et al., 2003; Goldsmith et al., 2002; Edwards & Holden, 2001; Beauvais & Oetting, 1999); hope (Kaslow et al., 2004; Perkins & Hartless, 2002; Csorba et al., 2003; Goldsmith et al., 2002); spirituality (Arnold, Avants, Margolin, & Marcotte, 2002; Blum et al., 2003; Wills et al., 2003; Kaslow et al., 2004); social support from family, friends, peers, and community (Compton et al., 2005; Perkins & Hartless, 2002; Yang & Clum, 2000; Brewin, Andrews, & Valentine, 2000); and effectiveness in obtaining resources (Thompson et al., 2002; Piquet & Wagner, 2003).

Risk Factors

In the M-REV, the risk factors have a negative effect on resilience. Risk factors are defined as emotional states, as well as activities and experiences that can directly or indirectly endanger the health and well-being of a person. They have the potential to result in personally, socially, or developmentally undesirable outcomes (Jessor, 1998). Rutter (1987) emphasized that risk factors could lead directly to psychopathology by decreasing the resilience levels.

Aside from the cumulative effect of risk, the high continuity over time also amplifies its impact (Sameroff et al., 1993), thereby decreasing resilience and increasing the probability of negative outcomes (Fergusson & Lynskey, 1996; Ruther, 2000). Several studies reveal that the presence of high level of risk factors significantly lowers the levels of protective factors (Luthar & Cicchetti, 2000; Dubow et al., 1997) and decreases the level of resilience (Miller et al. 1999). Extant research studies have also identified the

key risk factors – including family breakdown and socio-economic disadvantage – that are associated with depression, anxiety, suicidal ideation and/or suicidal attempts, post-traumatic stress disorder, and other psychopathology.

Based on theoretical and empirical studies, the proposed research study focuses on risk factors that include lower educational levels (Garmerzy et al., 1984; Werner, 1989), socio-economic disadvantage (Buckner et al., 2003; Kim-Cohen et al., 2004), family breakdown (King et al., 2001; Breton et al., 2002), physical and mental illness (Costello et al., 2005; McLeod & Kaiser, 2004), parental psychiatric illness (Luthar & Sexton, 2007), and the presence of adverse life events (D'Imperio et al., 2000). Studies show that there is a divergence in the individuals' experiences owing to the risk potentials or factors that, in spite of the presence of the most stressful life event, cause some individuals do well (Rutter, 1985).

Outcome

In the M-REV, the outcome is positively or negatively affected or influenced by the level of resilience. Flynn et al. (2004) viewed "resilience as an outcome that occurs at a specific point in time or as a trajectory that unfolds over a relatively lengthy period" (p. 65). Exposure to a considerable risk or adversity and the achievement of positive outcome or adaptation are the two essential criteria that are compulsory for a person to be considered resilient. Therefore, resilience is associated with a good outcome in the face of adversities (Rutter, 2000).

Positive adjustment is the result of resilience while the course or process of overcoming the risk is the process of resilience. Maladjustment or negative outcomes are associated with risk and level of protective factors; thus, low levels or absence of

protective factors are predicted to have weaker buffering effects on the relationship

between risk factors and negative adaptation (McLaren, Gomez, Bailey, & Van Der

Horst, 2007). Positive outcomes are radically lowered when the resilience level is

decreased due to the overwhelming presence of risk factors (Bradley, Whiteside,

Mundfrom, & Casey 1994). In contrast, negative outcomes are less likely in the presence

of high resilience and high level of protective factors that can moderate or buffer the

effect of the risk factors (Foshee & Jackson, 2001). Resilience process can lead to either

outcomes such as coping well with an adverse traumatic event or averting a negative

outcome such as depression or anxiety.

Summary

Rutter (1987) argues that, "resilience is more than just the flip-side of risk factors, but

rather it represents qualities encompassing process and mechanisms that confer

protection" (p. 316). Ultimately, resilience is a vibrant process despite the current debate

over whether it is an attribute or a characteristic, a process or an outcome. Explicating

how resilience protects individuals from risk and exploring interventions that can

enhance resilience is significant in providing holistic care.

CHAPTER 4

Methodology

The goal of this chapter is to present a detailed explanation of the methodical techniques used in this study. It covers study design, target population and sample, setting, ethical considerations, measurement instruments, data collection, and data analysis.

Research Questions

1. What is the relationship between individual protective factors and resilience?

2. What is the relationship between increased numbers of protective factors and resilience?

3. What is the relationship among individual risk factors, protective factors, and resilience?

4. What is the relationship among increased numbers of risk factors, protective factors, and resilience?

5. What is the relationship of positive outcome, protective factors, and resilience?

6. What is the relationship of negative outcomes, protective factors, and resilience?

Design

This study used a survey research design using correlational and multiple regression analyses. This non-experimental research employed questionnaires to obtain data from consenting participants related to this study's variables of interest (Johnson & Christensen, 2004). Polit and Beck (2004) identified flexibility and broadness as the ultimate advantages of a survey research.

Target Population and Sample

The target population for this study was women who have had an induced abortion. They study used a convenience sample. Convenience sampling was used by researchers to include the most conveniently available respondents or volunteers that are easily recruited and are willing to participate in the study (Johnson & Christensen, 2004; Polit & Beck, 2004). Burns and Grove (2005) explicated the advantages of convenience sampling as inexpensive, accessible, and necessitating less time to acquire compared to other types of samples. This sampling method can offer the methods of obtaining information in unknown fields (Burns & Grove, 2005). Nonetheless, convenience sampling is deemed a weak sampling method, as it does not offer many ways to control for multiple biases (Burns & Grove, 2005). To address this disadvantage, Burns and Grove (2005) suggest that researchers distinguish and define the known biases in the study samples. Additionally, researchers must identify the study participant characteristics to further evaluate for possible biases (Johnson & Christensen, 2004).

The participants in this study were recruited from hospitals, private abortion clinics, county clinics, and various communities. Flyers explaining the study were sent to different organizations, hospitals, and clinics and posted on the websites of different organizations. Internet based, self-administered questionnaires (i.e. online surveys) were used to collect the data.

To be eligible for participation in the present study, women were at least 18 years of age, living in the U.S, able to read and understand English at least to a 5th grade level, and willing to give informed consent. They also had a history of one or more induced abortions at any time. Individuals who have had one or more spontaneous abortions or

miscarriages and do not meet any of the inclusion criteria above were, thus, excluded from the study.

Power analysis is recommended to estimate the sample size for multiple regression analysis (Tabachnick & Fidell, 2000). The estimated minimum sample size for a moderate effect size, power of .90, alpha of .05, and with 12 variables is 171. Johnson and Christensen (2004) opined that the sample size for 1 million is 384, based on the 95% confidence level. The size of the recommended sample (N) is 384; however, this study is based on a survey design methodology. The accessible population for this study is estimated to be well below 1 million therefore a decreased sample size of 200 was estimated to be adequate.

Setting

This study utilized the naturalistic setting at the participants' homes or offices, or any other place where participants can access the Internet. Choosing a natural setting where the participants are most likely to feel at home, comfortable, and familiar can positively influence the way they will feel, behave, and respond to the questions (Polit & Beck, 2004) without feeling any pressure to appear at their best or without the worry of being judged. The use of the Internet to access the questionnaires is economical and permits the researchers to gather information from different areas nationwide or worldwide (Polit & Beck, 2004).

The eligible participants went to the website anytime and anywhere to complete the questionnaires using a computer with Internet access. To access the Internet survey site, the participants utilized an html address or link that took them to the Survey Monkey

website to complete the questionnaires. Detailed instructions and information related to informed consent were provided on the first page of the Survey Monkey website.

Ethical Consideration

Approval for this study was obtained from the University of Nevada Las Vegas Institutional Review Board (IRB). Participants gave their informed consent on the first page of the electronic survey/questionnaire used for this study. Participants were asked if they understand the purpose, risk, and benefits of the study, as explained on the first page; and, if they did, they were directed to select the Next option on the very bottom of the first page of the questionnaire. Selecting Next signified that the participants consented to participate in this study and will allow them to proceed with the survey. Another option, the No option, was available, signifying that the consent is not given and it lead to a message thanking them for their interest. For each item after the informed consent, the participants were also given a Skip option if they choose not to answer, which, if selected, will take them to the next question. The participation was completely voluntary.

Confidentiality was guaranteed in that there was no identifying information on the electronic questionnaires. The identities of the participants were not be collected, therefore, could not be revealed in the data analysis. All data are electronic and are kept on a portable thumb drive that is stored in a locked filing cabinet in the researcher's home. Data will be kept for three years after the study is completed, then all files will be destroyed by corrupting and then deleting the files, then destroying the actual 'jump drive.'

Risks to the participants are minimal. Several questions might cause an unusual level of discomfort. However, web links to several support groups and/or organizations that can offer professional interventions, if necessary, are available to all participants.

The goal of the study is to benefit the broader health community. The results of the study are disseminated to multiple health care providers and clinicians via conference presentation and professional publications; therefore, women's health may benefit from the study findings.

Measurement Instruments

The variables of interest for this study included: resilience, selected protective factors (hope, spirituality, self-efficacy, coping skills, social support, and effectiveness of obtaining resources), selected risk factors (educational status, history of mental and physical health, parental history of mental disorders, family breakdown, socio-economic disadvantage, and presence of stressful event), and negative outcome (depression, anxiety, and somatic symptoms). Unless the measurement instruments are already in the public domain, permission to the use of each measurement instrument was obtained by the researcher.

Resilience. To measure the degree of individual resilience, the Resilience Scale (RS) developed by Wagnild and Young (1993) was used. The RS was ascertained to be the best instrument to study resilience due to psychometric properties of the instrument and its applicability to various populations, from adolescents to the very old individuals (16 – 103 years old) and various ethnic groups (Ahern, Kiehl, Sole, & Byers, 2006). The RS was based on five characteristics of resilience: perseverance, equanimity, meaningfulness, self-reliance, and existential aloneness (Wagnild & Young, 1990). The

Cronbach's alpha coefficient was consistently acceptable and moderately high, ranging from .73 to .91 (Wagnild & Young, 1993). Internal consistency reliability has remained acceptable (alpha coefficient = .91). Among the 12 studies reviewed for internal consistency of RS, 11 studies revealed that Cronbach's alpha coefficient ranged from .85 to .94 while the construct validity was also established (Wagnild, 2009). Based on the factor analysis, two major factors have emerged and are called "individual competence" and "acceptance of self and life" (Wagnild & Young, 1993).

Protective factors. Six scales were used to measure the protective factors: hope, spirituality, self-efficacy, coping skills, social support, and effectiveness of obtaining resources.

Herth hope index (HHI). Hope is assessed using the Herth Hope Index (HHI). This is a 12-item tool that uses the 4-point Likert scale, with responses ranging from "strongly disagree" to "strongly agree." It has a good criterion-related validity, divergent validity, and good test-retest reliability with a Cronbach's alpha = .90 (Herth, 1992).

Spiritual well-being scale (SWBS). Spirituality or religiosity is measured using the Spiritual Well-Being Scale (SWBS) (Paloutzian & Ellison, 1982), a 20-item tool that measures both religious well-being and existential well-being. Scores are made on a 6-point Likert scale, ranging from "strongly agree" to "strongly disagree." The scale has a good test-retest reliability and convergent validity (Paloutzian & Ellison, 1982) with a Cronbach's alpha = .93.

General self-efficacy scale (GSE). Self-efficacy is assessed using the General Self-Efficacy Scale (GSE), which is a self-administered 10-item tool measuring the general sense of perceived self-efficacy in coping with daily hassles in life and in adapting to all

kinds of adverse life events (Schwarzer & Born, 1997). Responses are given on a 4-point scale and the total of the responses is the final composite score from 10 to 40. It is a reliable tool that has been used in samples from 23 nations, with good criterion-related validity (Cronbach's alpha = .76 to .90), and is cross-culturally competent (Schwarzer & Born, 1997).

Jalowiec coping scale (JCS). Coping strategies are examined using the Jalowiec Coping Scale (JCS) to assess general coping strategies of an individual. It is a 60-item tool that assesses how often a strategy is used to handle stress. Responses are given on a 4-point scale ranging from "never" (1), "sometimes" (2), "often" (3), to "almost always" (4). It has good construct validity and an adequate internal consistency (Cronbach's alpha 0.70–0.85) (Jalowiec, 1988).

Social support behaviors (SSB). Social support is measured using the Social Support Behaviors (SSB), a 45-item questionnaire on supportive behavior of family and friends (Vaux, Riedel, & Stewart, 1987). Responses are given on a 5-point Likert scale ranging from "no one would do this" to "most of them would certainly do this." It has a good convergent, divergent, and concurrent validity (Vaux et al., 1987). Cronbach's alpha for both family and friends is .99.

Effectiveness of obtaining resources scale (EOR). Effectiveness in obtaining resources is assessed with the use of Effectiveness of Obtaining Resources Scale (EOR), an 11-item tool to assess how an individual perceives himself or herself in terms of their ability to access resources. Responses are given on a 4-point Likert scale ranging from "not very effective/successful" to "very effective/successful." Cronbach's alpha is .86 (Sullivan, Tan, Basta, Rumptz, & Davidson, 1992).

Risk factors. To assess the presence of risk factors, pertinent demographic data was obtained for each participant: level of education, history of mental and physical illness, parental history of psychiatric disorder, employment status, annual household income, and family relationship with parents and/or siblings. General demographic data was also gathered such as age, ethnicity, marital status, and age at the time of the induced abortion.

Outcomes. Two instruments were used to measure the outcomes (positive and negative). To assess the negative outcome (depression, anxiety, and somatic symptoms), the Hopkins Symptom Check List-25 (HSCL-25) was used, whereas the positive outcome was measured on the Satisfaction With Life Scale (SWLS).

Hopkins symptom check list-25 (HSCL-25). To assess negative outcome (the physical and psychological outcome or the physical and/or psychological distress of depression, anxiety, and somatic symptoms), the HSCL-25, a brief version of Symptom Checklist-90R (Derogatis, 1983), was used. This self-report scale scores the psychiatric symptoms of depression, anxiety, and somatization symptoms from 1 corresponding to "not at all" to 4, "extremely," whereby individuals with a mean score for anxiety and/or depression and/or the total list of symptoms > 1.75 are considered symptomatic (Hinton, Chen, Tran, Newman, & Lu, 1994). This tool is highly reliable with a Cronbach's alpha = 0.94 (Nettelbadt, Hansson, Stefansson, Borgquist, & Nordstrom, 1993; Moum, 1998), a valid screening tool (Hough, Landsverk, & Jacobsen, 1990; Eberhard-Gran, Eskild, Tambs, Schei, & Opjordsmoen, 2001; Veijola et al., 2003), and cross-culturally competent (Hinton et al., 1994; McKelvey & Webb, 1997; Eberhard-Gran et al., 2001; Veijola et al., 2003).

Satisfaction with life scale (SWLS). Positive outcome are assessed through the SWLS 5-item scale that measures global life satisfaction or an individual's satisfaction with life as a whole (Diener, Emmons, Larsen, & Griffin, 1985). The instrument can be completed in 1 to 3 minutes if used during an interview (even by phone) or paper and pencil form. The participants rate the five statements using a seven-point Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree). The scores are tallied and the total score can range from 5 (low satisfaction) to 35 (high satisfaction). This scale has a good internal consistency with Cronbach's alpha of .79 - .89 reported in seven studies (Diener et al., 1985; Pavot & Diener, 1993). Similarly, Harris, Cumming, and Campbell (2006) reported a Cronbach's alpha of .90 for the SWLS. A normative data on wide-range populations has been reported for this scale (Pavot & Diener, 1993). A number of studies have also reported validity and reliability for this scale (Diener et al. 1985; Pavot & Diener, 1993; Pavot, Diener, Colvin, & Sandvik, 1991; Arrindell, Meeuwesen, & Huyse, 1991). This instrument has been translated to many languages and is found to be cross-culturally competent (Pavot & Diener, 1993; Diener, Suh, & Oishi, 1997). The SWLS is in the public domain and is not copyrighted.

Data Collection

An online survey application called Survey Monkey was used to collect this study's data. The participants were asked to complete a compilation of the measurement instruments previously described in this chapter. Demographic related questions were also included in the survey/questionnaire. Appendices B – K include computer screenshots of the survey. The researcher checked the website on a daily basis for the survey responses and response rate. Upon completion of the survey, the participant will

receive a $5.00 gift certificate from Amazon.com. The gift certificate was emailed to the participant within 7 to 10 days after the survey completion.

The survey results were downloaded from the Survey Monkey website to an Excel file. The data were reviewed and unnecessary information was removed. The Excel file was transferred to the Statistical Package for the Social Sciences (SPSS) Graduate Pack v20.0 for Windows for data analysis.

Data Analysis

Descriptive statistics including frequencies, means, and standard deviations were used to describe the demographic variables including age, marital status, educational level, and annual income (Polit & Beck, 2004). Frequency distributions and percentages were calculated to organize the data and to check for errors (Burns & Grove, 2005).

To analyze and answer the research questions and test the hypotheses, the multiple regression analysis was used. It is an appropriate statistical technique for examining the influences of protective factors and risk factors on resilience and the influence of resilience on the outcome. Multiple regressions can explore the predictive ability of one dependent continuous variable on one or more independent continuous variables. This statistical analysis enables the comparison of the predictive ability of the particular independent variables, thus identifying those that best predict a dependent variable (Johnson & Christensen, 2004; Burns & Grove, 2005).

Internal consistency reliability specifically the coefficient or Cronbach's alpha were performed to provide the reliability estimate of each tool in the study. Coefficient alpha also showed the degree to which the items are interrelated.

CHAPTER 5

Results

In Chapter 5, the results of the research are presented in a descriptive format using correlational and multiple regression as well as in tables. The results are divided into three sections (a) demographic findings, (b) investigation of assumptions as relates to inferential analysis, and (c) tests of hypotheses. The chapter concludes with a summary of the results. Statistical Package for the Social Sciences (SPSS) version 20.0 was used for all descriptive and inferential analyses. All inferential analyses were set at a 95% level of significance.

The purpose of this survey research design using correlational and multiple regression analyses was: (1) to determine the relationship between resilience and protective factors (hope, spirituality, self-efficacy, coping skills, social support, and effectiveness in obtaining resources); (2) to determine the relationship between resilience and risk factors (educational status, mental and health status, socio-economic status, parental history of mental disorder, family breakdown/conflict, and presence of a stressful event); and (3) to determine the relationship of resilience and protective factors with positive outcomes (adaptation) and negative outcomes (depression, anxiety, and somatization symptoms). Additionally, it was a purpose of this study to determine if resilience, protective factors, and risk factors can be predictive of positive or negative outcomes following induced abortion. The study was guided by the following research questions and associated research hypotheses:

1. What is the relationship between individual protective factors and resilience?

   H_a1: Individual protective factors are positively correlated with resilience.

2. What is the relationship between increased numbers of protective factors and resilience?

   H_a2: Increased numbers of protective factors are positively correlated with resilience.

3. What is the relationship among individual risk factors, protective factors, and resilience?

   H_a3: Individual risk factors are negatively correlated with protective factors and resilience.

4. What is the relationship among increased numbers of risk factors, protective factors, and resilience?

   H_a4: Increased numbers of risk factors are negatively correlated with protective factors and resilience.

5. What is the relationship of positive outcome, protective factors, and resilience?

   H_a5: Positive outcome are positively correlated with protective factors and resilience.

6. What is the relationship of negative outcomes, protective factors, and resilience?

   H_a6: Individual negative outcomes are negatively correlated with protective factors and resilience.

Population and Demographic Findings

The population for this study included a total of ($N = 216$) women of at least 18 years of age, living in the U.S., who have had at least one induced abortion. A convenience sample was used to recruit subjects into the study. The participants in this study were recruited from hospitals, private abortion clinics, county clinics, and various

communities. Data were collected from each participant via completion of a set of Internet based, self-administered questionnaires (i.e. online surveys).

Information on numerous demographic and other descriptive variables was collected. The descriptive findings are presented in seven tables. Table 1 presents measures of central tendency for the continuous descriptive variables of study, including means and standard deviations. The participants range in age from 18 to 68 years ($M = 36.8$ years, $SD = 14.01$ years). The mean number of years of finished school ($M = 13.64$ years, $SD = 2.57$ years) and median number of years ($Mdn = 13$ years) indicated that at least half of the participants completed approximately a year more than a high school education. Participants reported that 0 to 10 other people lived in their household ($M = 2.47$, $SD = 1.90$) and had from 0 to 8 children ($M = 1.21$, $SD = 1.49$). Participants reported having from 1 to 4 elective abortions ($M = 1.49$, $SD = 0.73$). The mean age at a first abortion ($N = 212$) was 17.53 years ($SD = 3.75$ years). The mean age at a second abortion ($N = 76$) was 18.74 years ($SD = 4.28$ years). The mean age at a third abortion ($N = 23$) was 21.7 years ($SD = 5.77$ years).

Appendix O presents frequency counts and percentages for the ordinal and nominal demographic variables of study. The majority of participants (58%, 126) were Caucasian, 17% (37) were Black or African American, and 11% (23) were Hispanic or Latina. Thirty-seven percent (80) of participants were married, and 30% (65) were never married. Thirty-three percent (72) of participants had an education of high school or less, and 40% (87) were not currently employed. The participants were distributed across the income groups, with the majority of participants (52%, 112) claiming a yearly household income of between $10,000 and $50,000 per year, and 13% (28) of participants claiming

a yearly household income of greater than $100,000. More than two-thirds of participants (73%, 158) were currently affiliated with an organized place of worship, and the majority of participants (72%, 155) were Christian. More than one-third of women (38%, 83) owned their residence. More than half of the participants (53%, 114) had children.

Table 2 presents frequency counts and percentages of diagnosed medical and psychiatric conditions of the participants. Approximately, half of the participants (51%, 111) reported that within the past 5 years they had headaches or migraines. Forty-four percent (94) of participants reported stomach or intestinal problems. Approximately one-third of participants (74) reported depression, 23% (49) reported anxiety, and 14% (30) reported panic attacks.

Table 3 includes parental psychiatric history information as relates to the participants' mothers and fathers. More than 52% (113) of participants indicated their mother had at least one of the psychiatric conditions listed. And more than 38% (82) of participants indicated their father had at least one of the conditions listed. Table 4 reports findings on the relationships *between* parents and of the parents *with the participant*. The numbers between positive and negative dynamics were evenly distributed for both between parent and parent with participant relationships.

Tables 5 and 6 present findings related to the abortion history of the participants. Sixty-four percent (138) of participants had one abortion, and 26% (55) had two abortions. The majority of participants (82%, 176) had at least one surgical abortion. Higher percentages of others in a participant's family who had an abortion included women in the same generation as the participant with 42% (90) of sisters and 36% (77) of

60

cousins also having had an abortion. One-third (71) of the participants did not know if other women in their family had had an abortion. When asked to gauge the importance of various items relating to the question, "What made you decide to have your abortion?" Greater numbers of participants reported "most important" on all of the items with the exception of "Have enough children" in which the majority of participants reported as "Does not apply to me."

Table 1

Measures of Central Tendency for Continuous Variables Relating to Demographics and Abortion Data of Study (N = 216)

Variable	N	M	SD	Mdn	Range
Age (in years)	216	36.80	14.01	34.5	18 – 68
Number of years finished in school	216	13.64	2.57	13.0	8 – 25
Number of people who live in household with you	216	2.47	1.90	2.0	0 - 10
Number of children you have	216	1.21	1.49	1.0	0 – 8
Total number of elective abortions have had	216	1.49	0.73	1.0	1 – 4
Age at first abortion (in years)	212	17.53	3.75	16.0	13 - 34
Age at second abortion (in years)	76	18.74	4.28	17.0	14 – 33
Age at third abortion (in years)	23	21.7	5.77	19.0	15 - 38

Note. N = population size; M = Mean; SD = Standard Deviation; Mdn = Median.

Table 2

Frequency Counts and Percentages of Diagnosed Medical and Psychiatric Conditions of Participants (N = 216)

Variable	Frequency	Percentage
Medical conditions receiving treatment in past 5 years (select all that apply)		
Headaches or migraines	111	51.4
Stomach, ulcers, or intestinal problems	94	43.5
Asthma, bronchitis, or lung problems	49	22.7
Back pain or arthritis	46	21.3
Alcoholism	31	14.4
Heart problem (high blood pressure, CHF, chest pain)	24	11.1
Diabetes or high blood sugar	20	9.3
Drug abuse	18	8.3
Injuries	17	7.9
Epilepsy or seizure	1	0.5
HIV/AIDS	1	0.5
None	36	16.7
Did Not Respond	5	2.3
Psychiatric conditions diagnosed (select all that apply)		
Depression	74	34.3
Anxiety	49	22.7
Panic attacks	30	13.9
Bipolar (manic depressive)	23	10.6
Post-traumatic stress disorder (PTSD)	20	9.3
Obsessive compulsive disorder	4	1.9
Schizophrenia	4	1.9
None	93	43.1
Did Not Respond	7	3.2

Table 3

Frequency Counts and Percentages of Parental Psychiatric History (N = 216)

Variable	Frequency	Percentage
Mother received treatment for the following conditions (select all that apply):		
Depression	76	35.2
Anxiety	37	17.1
Panic Attacks	11	5.1
Bipolar (manic depressive)	12	5.6
Schizophrenia	1	0.5
Post-traumatic Stress Disorder (PTSD)	2	0.9
Obsessive compulsive disorder	3	1.4
Did Not Respond	8	3.7
Father received treatment for the following conditions (select all that apply):		
Depression	55	25.5
Anxiety	27	12.5
Panic Attacks	4	1.9
Bipolar (manic depressive)	20	9.3
Schizophrenia	9	4.2
Post-traumatic Stress Disorder (PTSD)	27	12.5
Obsessive compulsive disorder	1	0.5
Did Not Respond	16	7.4

Table 4

Frequency Counts and Percentages of Familial History Variables (N = 216)

Variable	Frequency	Percentage
What is/was your parents' (or other guardians') relationship with EACH OTHER like? (select all that apply)		
Loving	77	35.6
Strained	81	37.5
Abusive (emotionally, psychologically, verbally)	67	31.0
Abusive physically	52	24.1
Amicable	38	17.6
Did Not Respond	2	0.9
What is/was your parents' (or other guardians') relationship with YOU like? (select all that apply)		
Loving	86	39.8
Strained	88	40.7
Abusive (emotionally, psychologically, verbally)	59	27.3
Abusive physically	44	20.1
Amicable	46	21.3
Did Not Respond	2	0.9

Table 5

Frequency Counts and Percentages of Nominal and Ordinal Variables Relating to Abortion History Data of Study (N = 216)

Variable	Frequency	Percentage
Total number of elective abortions have had		
One	138	63.9
Two	55	25.5
Three	19	8.8
Four	4	1.9
Types of abortions have had (select all that apply)		
Surgical abortion	176	81.5
Medical abortion	29	13.4
Spontaneous abortion or miscarriage	16	7.4
Therapeutic abortion	10	4.6
Did Not Respond	7	3.2
Who else in the family has had abortions (select all that apply)		
Grandmother	15	6.9
Mother	55	25.5
Sister	90	41.7
Cousin	77	35.6
Daughter	6	2.8
Niece	22	10.2
No one else	17	7.9
Do not know	71	32.9
Did Not Respond	5	2.3

Table 6

Participant Response Frequencies to Likert-Scaled Abortion Decision Items (N = 216)

Question/Items	N	How Important?				Does Not Apply to me
		Most	Very	Somewhat	Not	
What made you decide to have your abortion?						
Parent's choice or advice	198	78	54	6	7	53
Boyfriend or spouse or significant other advice	199	139	17	14	12	17
Friends' choice or advice	197	61	55	28	13	40
Financial issues	200	131	18	26	13	12
Career or studies	198	126	25	13	18	16
Too young to have a baby	201	130	15	12	20	24
Have enough children	188	3	3	3	14	165
Don't want to have a baby at that time	199	117	41	12	10	19

Note. N = population size

Instrumentation

A total of nine survey instruments were utilized in this study: (a) The Resilience Scale (RS), (b) The Herth Hope Index (HHI), (c) The Spiritual Well-Being Scale (SWBS), (d) The General Self-Efficacy Scale (GSE), (e) The Jalowiec Coping Scale (JCS), (f) The Social Support Behaviors (SSB), (g) Effectiveness in Retaining Resources Scale (EOR), (h) Satisfaction With Life Scale (SWLS), and (i) Hopkins Symptom Check List-25 (HSCL-25). All nine of the measurement instruments were described in detail in Chapter 4. Many participants did not answer all questions for all nine instruments. Using summed scores for each of the nine instruments would necessitate exclusion of incomplete scale scores, therefore it was determined that mean scores for each participant on each of the nine measurement instruments would be used in lieu of summed scores. The use of mean scores allowed for inclusion of the scores of participant records that did not contain complete sets of data on a given instrument. The mean scores rather than the summed scores for each instrument were utilized in all hypothesis tests of this study.

Table 7 presents the measures of central tendency for the mean scores and the Cronbach's coefficient alpha value of internal consistency for each of the 9 instruments. A Cronbach's coefficient alpha value of .70 or greater indicates good reliability of an instrument with the data collected (Tabachnick & Fidell, 2007). All nine instruments were reliable with the data collected for this study.

Table 7

Measures of Central Tendency and Cronbach's Coefficient Alpha for Study Instrumentation Scores (N = 216)

Instrument	# of Items	N	M	SD	Mdn	Sample Range	α
Resilience Scale (RS)	26	184	4.48	1.26	4.29	1.00 – 7.00	.987
Herth Hope Index (HHI)	12	214	2.83	0.59	2.83	1.33 - 4	.944
Spiritual Well-Being Scale (SWBS)	20	212	3.91	0.69	3.80	2.50 – 5.25	.863
General Self-Efficacy Scale (GSE)	10	211	2.56	0.74	2.80	1.00 – 4.00	.982
Jalowiec Coping Scale (JCS)	120	196	2.51	0.20	2.53	2.00 – 1.08	.881
Social Support Behaviors (SSB)	90	188	2.46	1.003	2.00	1.00 – 4.93	.997
Effectiveness in Obtaining Resources Scale (EOR)	11	186	2.12	1.03	1.77	1.00 – 4.00	.982
Satisfaction with Life Scale (SWLS)	5	181	3.27	1.64	3.00	1.00 – 7.00	.951
Hopkins Symptom Check List-25 (HSCL-25)	25	184	2.37	.064	2.44	1.04 – 3.96	.953

Note. N = Population size; M = Mean; SD = Standard Deviation; Mdn = Median; α = Alpha.

Scale ranges (in mean values) for the instrumentation are as follows:
Resilience Scale (RS) = 1 – 7
Herth Hope Index (HHI) = 1 - 4
Spiritual Well-Being Scale (SWBS) = 1 - 6
General Self-Efficacy Scale (GSE) = 1 - 4
Jalowiec Coping Scale (JCS) = 1 - 4
Social Support Behaviors (SSB) = 1 - 5
Effectiveness in Obtaining Resources Scale (EOR) = 1 - 4
Satisfaction with Life Scale (SWLS) = 1 - 7
Hopkins Symptom Check List-25 (HSCL-25) = 1 - 4

Inferential Analysis Assumptions

Calculations of the nine variable constructs that were included in inferential analysis (See Table 7) were performed using mean values to allow for weighted adjustment for small percentages of missing values on associated survey item responses of each instrument. The dataset was investigated for the inferential analysis assumptions of absence of outliers, normality, linearity, and homoscedasticity as relates to the nine variable constructs of (a) The Resilience Scale (RS), (b) The Herth Hope Index (HHI), (c) The Spiritual Well-Being Scale (SWBS), (d) The General Self-Efficacy Scale (GSE), (e) The Jalowiec Coping Scale (JCS), (f) The Social Support Behaviors (SSB), (g) Effectiveness in Retaining Resources Scale (EOR), (h) Satisfaction With Life Scale (SWLS), and (i) Hopkins Symptom Check List-25 (HSCL-25).

Outliers in a dataset have the potential to distort results of an inferential analysis. A check of boxplots for the nine variable constructs used during inferential analysis was performed to visually inspect for outliers. The boxplots indicated that only one outlier was present for the construct of JCS. The JCS variable was standardized to check for the presence of extreme outliers (z-score of +/- 3.3) No extreme outliers were found. Since the outlier was within the acceptable range of the JCS construct and less than 5% of the data were missing on any one construct, it was determined that all records would be retained for analysis and that the outlier assumption was not violated.

Normality for the scores of the nine variable constructs was investigated with SPSS Explore. The Kolmogorov-Smirnov (K-S) test for normality indicated that none of the variable constructs were normal ($p < .01$). However, the K-S test is sensitive to larger sample sizes (> 50) and will return a significant value when in fact; the data is normally

distributed (Tabachnick & Fidell, 2007). A visual check of histograms for most of the nine construct scores did not indicate skew, but the histogram for JCS did indicate a slight right skew. The normal Q-Q plots indicated normality for all nine variable constructs. The tests used for inference in this study are robust to deviations from normality when most of the other assumptions are met. Therefore, it was decided that the assumption of normality was not seriously violated and parametric tests were used on all nine of the continuous variables during inferential analysis, without transformation of the variables. Assumptions of linearity between study variables and homoscedasticity, requirements for correlational and multiple regression analysis, were checked with scatterplots of the data. The assumptions of linearity and homoscedasticity were not violated.

Multicollinearity diagnostics for multiple regression analysis were performed using SPSS. No violations were noted and the assumption of absence of multicollinearity was met.

Operationalization of Variables for Inferential Analysis

A series of bi-variate correlations and two multiple regression analyses were performed to test the hypotheses of this study. The first regression analysis included the dependent variable of Positive Outcome, measured via mean scores on the Satisfaction with Life Scale (SWLS). Higher SWLS scores were indicative of greater satisfaction with life, hence a greater positive outcome. The second regression analysis included the dependent variable of Negative Outcome, measured with mean scores on the Hopkins Symptom Check List – 25 (HSCL-25). Higher scores on the HSCL-25 were indicative of greater symptoms of anxiety and depression, hence a greater negative outcome. Due to

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the nature of the data collected (missing values, some variable groupings low in number, etc.) some changes in the operationalization of the variables were necessitated. A total of 24 independent variables were included in each of the two regressions. Correlational analysis included all 24 independent variables, the two dependent variables, and two additional variables that were constructed to measure increased numbers of protective and risk factors, for a total of 28 variables in total. Appendix P presents the 28 variables by type and level. The operationalizations of the independent variables are as follows:

Resilience. The mean score of the Resilience Scale (RS) for each participant was computed and used as the independent variable for both multiple regression models. The RS score was continuous in scale, with higher scores indicative of greater resilience.

Hope. The mean score of the Herth Hope Index (HHI) for each participant was computed and used as a protective factor variable in the regression models. The HHI score was continuous in scale, with higher scores indicative of greater hope.

Spirituality. The mean score of the Spiritual Well-Being Scale (SWBS) for each participant was computed and used as a protective factor variable in the regression models. The SWBS score was continuous in scale, with higher scores indicative of greater spirituality.

Self-efficacy. The mean score of the General Self-Efficacy Scale (GSE) for each participant was computed and used as a protective factor variable in the regression models. The GSE score was continuous in scale, with higher scores indicative of greater self-efficacy.

Coping skills. The mean score of the Jalowiec Coping Scale (JCS) for each participant was computed and used as a protective factor variable in the regression

models. The JCS score was continuous in scale, with higher scores indicative of greater coping ability.

Social support. The mean score of the Social Support Behaviors Scale (SSB) for each participant was computed and used as a protective factor variable in the regression models. The SSB score was continuous in scale, with higher scores indicative of greater social support.

Effectiveness in obtaining resources. The mean score of the Effectiveness in Obtaining Resources Scale (EOR) for each participant was computed and used as a protective factor variable in the regression models. The EOR score was continuous in scale, with higher scores indicative of greater effectiveness in obtaining resources.

Number of years of education. An ordinal variable, coded as the total number of years of school completed for each participant. This variable defined the risk factor of educational status.

Mental health diagnosis. A dichotomous variable, coded as 1 if the participant indicated at least one diagnosed psychiatric condition, listed in Table 2, and 0 if a participant did not indicate any diagnosed psychiatric conditions. This variable defined the risk factor of history of mental illness.

Physical health treatment. A dichotomous variable, coded as 1 if the participant indicated at least one treated medical condition within the past 5 years, listed in Table 2, and 0 if a participant did not indicate any listed diagnosed treatment. This variable defined the risk factor of history of physical illness.

Mother mental health diagnosis. A dichotomous variable, coded as 1 if the participant indicated at least one diagnosed psychiatric condition, listed in Table 3, as

relates to a participant's mother, and 0 if a participant did not indicate any diagnosed psychiatric conditions. This variable, along with the variable of "father mental health diagnosis" defined the risk factor of parental history of psychiatric disorder.

Father mental health diagnosis. A dichotomous variable, coded as 1 if the participant indicated at least one diagnosed psychiatric condition, listed in Table 3, as relates to a participant's father, and 0 if a participant did not indicate any diagnosed psychiatric conditions. This variable, along with the variable of "mother mental health diagnosis" defined the risk factor of parental history of psychiatric disorder.

Parents' relationship with each other. Many participants choose both positive and negative attributes regarding the relationship between their parents, which made dichotomous coding into two groups of positive and negative relationship difficult for these participants. Instead of one dichotomously coded variable, which would necessitate exclusion of more than 10 records due to ambiguity, the relationship of the participants' parents' to each other was coded into two ordinal variables (a) parents' positive score and (b) parents' negative score. Using the survey question, "What is/was your parents' (or other guardians') relationship with EACH OTHER like?" the parents' positive score was derived by counting each response of "loving" or "amicable" as 1 point and summing together the points for each participant of study. For example, if a participant chose only "loving" or "amicable," they would receive 1 point for the parent's positive score; if a participant choose both "loving" and "amicable" they received a score of 2. Similarly, each participant received a parents' negative score associated with the number of choices they made for items "strained," "abusive emotionally," or "abusive physically." Responses to the parents' positive score and the parents' negative score, along with the

variables relating to parents relationship with participant, defined the risk factor of family breakdown/conflicts.

Parents' relationship with participant. Many participants choose both positive and negative attributes regarding the relationship between their parents and themselves, which made dichotomous coding into two groups of positive and negative relationship difficult for these participants. Instead of one dichotomously coded variable, which would necessitate exclusion of more than 20 records due to ambiguity, the relationship between the participants and their parents was coded into two ordinal variables (a) parent/participant positive score and (b) parents/participant negative score. Using the survey question, "What is/was your parents' (or other guardians') relationship with YOU like?" the parents/participant positive score was derived by counting each response of "loving" or "amicable" as 1 point and summing together the points for each participant of study. For example, if a participant chose only "loving" or "amicable" they would receive 1 point for the parents/participant positive score; if a participant choose both "loving" and "amicable" they received a score of 2. Similarly, each participant received a parents/participant negative score associated with the number of choices they made for items "strained," "abusive emotionally," or "abusive physically." Responses to the parents/participant positive score and the parents/participant negative score, along with the variables relating to parents relationship with each other, defined the risk factor of family breakdown/conflicts.

Employment status. A dichotomous variable, coded as 1 = employed, 0 = unemployed. Employment status, along with the Income and Homeownership variables, defined the risk factor of socio-economic disadvantage.

Income. An ordinal variable including a total of 12 hierarchical classifications, from 1 = Under $5,000 to 12 = Over $100,000. Income, along with the Employment Status and Homeownership variables, defined the risk factor of socio-economic disadvantage.

Homeownership. A dichotomous variable, coded as 1 = own home, 0 = does not own home. Homeownership, along with the Employment Status and Income variables, defined the risk factor of socio-economic disadvantage.

Race/ethnicity. The Race/Ethnicity variable was dummy coded into 3 dichotomous variables (yes vs. no) representing the races of Black, Hispanic, and Other. The reference category for Race/Ethnicity was White. Race was included as an independent control variable.

Number of children. An ordinal variable with values equal to the number of children for each participant. Number of children was included as an independent control variable.

Number of abortions. An ordinal variable with values equal to the number of abortions for each participant. Number of abortions was included as an independent control variable.

Number of protective and risk factors. Two additional variables were developed for use in correlational analyses to test the hypotheses using the term "increased numbers" as relates to (a) protective factors and (b) risk factors. In order to determine the number of protective factors, median splits were performed on the mean scale scores for the 6 protective factor variables of (a) hope, (b) spirituality, (c) self-efficacy, (d) coping skills, (e) social support, and (f) effectiveness in obtaining resources. If a participant's score was above the median mean scale score for a particular protective factor variable,

then they received a score of 1 for that protective factor. The score were then summed for each participant to derive a protective factor score, which ranged from 0 to 6. Higher scores were associated with increased numbers of protective factors.

A risk factor score was derived in a similar way to the protective factor score. A person received one point for each of the following risk factor groups: (a) an education completion number of years lower than the median number of years reported by the study participants (Mdn = 13 years). Participants with less than 13 years of education were given one risk point, (b) a value of 1 on the mental health diagnosis variable, (c) a value of 1 on the physical health treatment variable, (d) a value of 1 for the mental health diagnosis for mother variable, (e) a value of 1 for the mental health diagnosis for father variable, (f) a value of 0 on the employment status variable, and (g) a value of 0 on the homeownership variable. In addition the summed scores of (h) the parents' negative score and (i) the parents/participant negative score were included. The items were summed to obtain a total risk factor score, which ranged from 0 to 13. Higher scores were associated with increased numbers of risk factors.

Correlational Analyses

A series of Pearson's product moment correlations were performed to compare bi-variate associations on 25 of the 28 variables operationalized for hypothesis testing. The three variables relating to race/ethnicity were not included in the correlational analyses because they were nominal in scale and correlations require at least an ordinal level of measurement (Pallant, 2007). Additionally, if either of the variables in a pair were ordinal in level, then Spearman's Rank Order correlation was used in lieu of Pearson's product moment correlations. The results of the correlational analyses are presented in Appendix L. A table was attempted for presentation in this chapter, however the size of the correlation table (25X24) was too large to table within reasonable font sizes. Many significant and strong correlations were noted. However, none of the correlations were above the cutoff value of .90 for multicollinearity. Cohen (1988) defined strength of association defined by correlation coefficients (effect size) as small (+/- .10 - .29), medium (+/- .30 - .49) and large (+/- .50 to 1.0).

SWLS had a significant strong indirect association with HSCL-25 ($r = -.656, p <$ .0005) indicating that when scores relating to a positive outcome (SWLS) increased or decreased, the scores relating to negative outcome (HSCL-25) moved in the opposite direction. Higher satisfaction with life was associated with lower anxiety and depression, and lower satisfaction with life was associated with higher anxiety and depression. The SWLS had significant strong direct associations with the variables defining the protective factors of the study. All correlations were greater than $r = .50$ and significant at the $p <$ .0005 level. Many of the remaining correlations of the SWLS with other variables of study (see Appendix P) were small to moderate in strength, with variables associated with

protective factors having a direct (positive) relationship with SWLS and variables

associated with risk factors having an indirect (negative) relationship with SWLS. Strong

correlations of the SWLS were found with the variable of protective factor score ($r =$

.717, $p < .0005$) and for the variable of risk factor score ($r = -.527, p < .0005$).

The HSCL-25 had significant strong indirect correlations ($r < -.50, p < .0005$) with all

protective factors except JCS ($r = -.303, p < .0005$). Many of the remaining correlations

of the HSCL-25 with other variables of study (Appendix P) were small to moderate in

strength, with variables associated with risk factors having a direct (positive) relationship

with HSCL-25 and variables associated with protective factors having an indirect

(negative) relationship with HSCL-25. Strong correlations of the HSCL-25 were found

with the variable of protective factor score ($r = -.692, p < .0005$). A moderate direct

effect was noted between HSCL-25 and risk factor score ($r = .435, p < .0005$).

Additionally, a strong indirect effect was found between HSCL-25 and the variable of

homeownership ($r = -.525, p < .0005$). The direction of the relationship suggests that

participants who were homeowners scored lower on the HSCL-25.

Resilience (RS) had a significant, strong, negative correlation with HSCL-25 ($r = -$

.728, $p < .0005$). RS was significantly directly correlated with the protective factors of

the study, including (a) HHI ($r = .819, p < .0005$), (b) SWBS ($r = .745, p < .0005$), (c)

GSE ($r = .869, p < .0005$), (d) JCS ($r = .541, p < .0005$), (e) SSB ($r = .719, p < .0005$),

and (f) EOR ($r = .778, p < .0005$). RS was significantly indirectly correlated with the risk

factors of (a) mental health diagnosis ($r = -.193, p = .009$), (b) physical health treatment

($r = -.414, p < .0005$), (c) mother mental health diagnosis ($r = -.264, p < .0005$), (d) father

mental health diagnosis ($r = -.359, p < .0005$), (e) number of abortions ($r = -.377, p < .0005$), and (f) risk factor score ($r = -.461, p < .0005$).

Many additional moderate to large correlational effects were noted between the independent variables of study and are all presented in Appendix L.

Multiple Regression Analyses

Two multiple regression models were developed for this study. The dependent variable of the first regression was positive outcome, defined by each participant's mean SWLS score. The dependent variable of the second regression was negative outcome, defined by each participant's mean HSCL-25 score. Both regressions included a total of 24 independent variables. Full regression models with 24 independent variables each would include some factors that were useful predictors, and many factors that would not be important contributors to the dependent variables, and therefore should not be included in the model. The goal of the researcher was to build the best models to predict the outcomes with as few variables as needed. Attempting all possible subsets of independent variable combinations would prove quite time consuming, and therefore a stepwise method of regression was used in this study. Stepwise regression reviews the model in steps. At each step, the variables are added or removed according to significance criterion, until a subset of independent variables which model the outcome well is determined. The criterion used for the entry or deletion of variables at each step was entry of a variable with a p-value of .05 or less, and removal of a variable with a p-value of .10 or greater.

The dataset ($N = 216$) was split into two random sub-sets. The first sub-set ($n = 172$) contained approximately 80% of the participant records and was used as the training set

to calculate the two stepwise regression models. The second subset ($n = 44$) contained the remaining 20% of participant records and was used as the validation set for testing the two models.

Multiple regression with dependent variable of positive outcome. A stepwise method of multiple regression was used to regress the dependent variable of positive outcome (SWLS) on 24 independent predictors (see Appendix P). SPSS first tested a model with the most-correlated independent variable (HHI). Then it tested a model with HHI plus the variable with the highest partial correlation with the dependent variable (SWLS) controlling for HHI. The second variable included was JCS. Model 3 used the same process and entered parent/participant negative score into the equation. Lastly, Model 4 added the dummy code for homeownership. None of the other independent variable significantly increased R^2 when the variables of HHI, JCS, parent/participant negative, and homeownership were controlled, so models with these variables were not considered and model 4 was determined to be the best and most parsimonious model. Results of the stepwise regression are presented in Table 8 and include the unstandardized model coefficients (B) and associated standard errors (*SE* B), standardized regression coefficients (β), and t-statistics and significance values for the predictor variables.

The model indicated that at least one predictor was significantly different from zero [F (4, 136) = 63.83, $p < .0005$], with R^2 of .669 (.659 adjusted). The adjusted R-square value of .659 indicated that approximately 66% of the variability in the dependent variable of SWLS was predicted by the 4 independent variables in the model. The four predictors were significant for the outcome of SWLS, (a) HHI [t (139) = 7.87, $p < .0005$;

95% CI (1.01, 1.69)], (b) JCS [t (139) = 5.21, p < .0005; 95% CI (1.47, 3.27)], (c)

parents/participant negative score [t (139) = -3.80, p < .0005; 95% CI (-0.47, -0.15)], and

(d) homeownership [t (139) = 3.28, p = .001; 95% CI (0.25, 1.02)]. The squared semi-

partial correlation for the predictor of HHI was .15, indicating that this variable

contributed 15% of unique variance to the model. The squared semi-partial correlation

for the predictor of JCS, .07, indicated that 7% of unique variance on the positive

outcome of SWLS can be attributed to the JCS variable. The squared semi-partial

correlations for the predictors of parents/participant negative outcome and

homeownership were .03, indicating that each of the variables provided 3% unique

variance to the model. The size and direction of the relationship between SWLS and the

independent variables of HHI, JCS, and homeownership suggests that positive outcome

increased when values of the predictors increased. The negative value of the

parents/participant negative outcome with SWLS suggests that the positive outcome of

SWLS decreased when the score of the parents/participant negative outcome variable

increased.

The validation model was tested on the 20% of data in the validation dataset. The R^2

for the validated model was .660. The differences between the validation model R^2 of

.660 and the training model R^2 of .669 were not large, indicating a good fit to the

stepwise regression model. Residual standard deviations between the training model

($SD_{residual}$ = 0.96) and the validation model ($SD_{residual}$ = 1.06) indicated the values were

about 9% larger for the validation set. This suggests that prediction for new cases would

be about 9% less precise than modeled in the training dataset. Overall, the training model

appeared to be a good fit for predicting positive outcome as measured by the SWLS.

Table 8

Stepwise Multiple Regression Results for Satisfaction With Life Scale (SWLS) Regressed on 24 Independent Variables using the Training Dataset

Variable	B	SE B	β	t	Sig.
HHI	1.35	0.17	0.48	7.87	<.0005
JCS	2.37	0.46	0.29	5.21	<.0005
Parent/participant negative score	-0.31	0.80	-0.19	-3.80	<.0005
Homeownership = yes	0.64	0.19	0.19	3.28	.001
Constant	-6.53	1.07	---	---	---
Model Summary	$F = 68.73$, sig <.0005 $N = 141$ $R^2 = .669$ Adjusted $R^2 = .659$				

Note. B = Unstandardized regression coefficient; *SE* B = Standard error of unstandardized regression coefficient; β = Standardized regression coefficient; *t* = Test statistic; Sig.= Significance; HHI = Herth Hope Index; JCS = Jalowiec Coping Scale.

Multiple regression with dependent variable of negative outcome. A stepwise method of multiple regression was used to regress the dependent variable of negative outcome (HSCL-25) on 24 independent predictors (see Appendix P). SPSS first tested a model with the most-correlated independent variable (RS). Then it tested a model with RS plus the variable with the highest partial correlation with the dependent variable (SWLS) controlling for RS. The second variable included was SWBS. Model 3 used the same process and entered EOR into the equation. Lastly, Model 4 added the dummy code for employment status. None of the other independent variables significantly increased R^2 when the variables of RS, SWBS, EOR, and employment status were

controlled, so models with these variables were not considered and model 4 was

determined to be the best and most parsimonious model. Results of the stepwise

regression are presented in Table 9 and include the unstandardized model coefficients (B)

and associated standard errors (SE B), standardized regression coefficients (β), and t-

statistics and significance values for the predictor variables.

The model indicated that at least one predictor was significantly different from zero

[F (4, 138) = 53.97, p < .0005], with R^2 of .610 (.599 adjusted). The adjusted R^2 value of

.599 indicated that approximately 60% of the variability in the dependent variable of

HSCL-25 was predicted by the 4 independent variables in the model. The four predictors

were significant for the outcome of HSCL-25, (a) RS [t (142) = -2.97, p < .0005; 95% CI

(-0.25, -0.05)], (b) SWBS [t (142) = -3.18, p < .0005; 95% CI (-0.41, -0.09)], (c) EOR [t

(142) = -3.23, p < .0005; 95% CI (-0.27, -0.07)], and (d) employment status [t (142) =

2.68, p < .0005; 95% CI (0.04, 0.32)]. The squared semi-partial correlation for the

predictors of RS and employment status were .02, indicating that these variables

contributed 2% of unique variance to the model. The squared semi-partial correlation for

the predictors of SWBS and EOR, .03, indicated that 3% of unique variance on the

negative outcome of HSLC-25 can be attributed to each of the two variables. The size

and direction of the relationship between HSCL-25 and the independent variables of RS,

SWBS, and EOR suggests that negative outcome decreased when values of the predictors

increased. The positive value of the employment status with HSCL-25 suggests that the

negative outcome of HSCL-25 increased when a participant was employed.

The validation model was tested on the 20% of data in the validation dataset. The R^2

for the validated model was .58. The differences between the validation model R^2 of .61

and the training model R^2 of .58 were not large, indicating a good fit to the stepwise

regression model. Residual standard deviations between the training model ($SD_{residual} =$

0.35) and the validation model ($SD_{residual} = 0.46$) indicated the values were about 24%

larger for the validation set. This suggests that prediction for new cases would be about

24% less precise than modeled in the training dataset. Overall, the training model

appeared to be a good fit for predicting negative outcome as measured by the HSCL-25

when considering differences in the model R^2, but predictive ability of the HSCL-25

regression model was not as good as for the SWLS regression model when residual

standard deviations and predictive ability were compared.

Table 9

Stepwise Multiple Regression Results for Hopkins Symptom Check List – 25 (HSCL-25) Regressed on 24 Independent Variables using the Training Dataset

Variable	B	*SE* B	β	*t*	Sig.
RS	-0.15	0.05	-0.29	-2.97	<.0005
SWBS	-0.25	0.08	-0.28	-3.18	<.0005
EOR	-0.17	0.05	-0.28	-3.23	<.0005
Employed = yes	0.18	0.07	0.14	2.68	<.0005
Constant	4.27	0.22	---	---	---
Model Summary	$F = 53.97$, sig <.0005 $N = 143$ $R^2 = .61$ Adjusted $R^2 = .599$				

Note. B = Unstandardized regression coefficient; *SE* B = Standard error of unstandardized regression coefficient; β = Standardized regression coefficient; *t* = Test statistic; Sig.= Significance; RS = Resilience Scale; SWBS = Spiritual Well-Being Scale; EOR = Effectiveness in Obtaining Resources Scale.

Hypotheses Testing

This study made use of correlational analyses and two multiple regression analyses using the stepwise method to address the six research questions and associated statistical hypotheses of the study. The findings are presented according to research question and statistical hypothesis.

Research question 1. What is the relationship between individual protective factors and resilience?

Alternative hypothesis 1. Individual protective factors are positively correlated with resilience.

Significant positive correlations were noted between the resilience score (RS) and the

protective factors of (a) Hope (HHI; $r = .819, p < .0005$), (b) Spiritual Well-Being

(SWBS; $r = .745, p < .0005$), (c) Self-Efficacy (GSE; $r = .869, p < .0005$), (d) Coping

Skills (JCS $r = .541, p < .0005$), (e) Social Support (SSB; $r = .719, p < .0005$), and (f)

Effectiveness in obtaining resources (EOR; $r = .778, p < .0005$). Therefore reject null

hypothesis 1. There is sufficient evidence to indicate that individual protective factors

are positively correlated with resilience. Research Hypothesis 1 is supported.

Research question 2. What is the relationship between increased numbers of

protective factors and resilience?

Alternative hypothesis 2. Increased numbers of protective factors are positively

correlated with resilience.

The variable of protective factor score was positively correlated with resilience score

($r = .836, p < .0005$). Therefore, reject null hypothesis 2. There is sufficient evidence to

indicate that increased numbers of protective factors are positively correlated with

resilience. Research Hypothesis 2 is supported.

Research question 3. What is the relationship among individual risk factors,

protective factors, and resilience?

Alternative hypothesis 3. Individual risk factors are negatively correlated with

protective factors and resilience.

The risk factor of mental health diagnosis was significantly negatively correlated with

(a) RS ($r = -.193, p = .009$), (b) HHI ($r = -.277, p < .0005$), (c) SWBS ($r = -.142, p = .039$), (d) GSE ($r = -.222, p = .001$), and (e) JCS ($r = -.168, p = .019$).

The risk factor of physical health treatment was significantly negatively correlated with (a) RS ($r = -.414$, $p < .0005$), (b) HHI ($r = -.352$, $p < .0005$), (c) SWBS ($r = -.324$, $p = .039$), (d) GSE ($r = -.363$, $p < .0005$), (e) JCS ($r = -.233$, $p = .001$), (f) SSB ($r = -.373$, $p < .0005$), and (g) EOR ($r = -.416$, $p < .0005$).

The risk factor of mother mental health diagnosis was significantly negatively correlated with (a) RS ($r = -.264$, $p < .0005$), (b) HHI ($r = -.192$, $p = .005$), (c) SWBS ($r = -.227$, $p = .001$), (d) GSE ($r = -.190$, $p = .006$), (e) JCS ($r = -.327$, $p < .0005$), (f) SSB ($r = -.298$, $p < .0005$), and (g) EOR ($r = -.221$, $p = .002$).

The risk factor of father mental health diagnosis was significantly negatively correlated with (a) RS ($r = -.359$, $p < .0005$), (b) HHI ($r = -.412$, $p = .005$), (c) SWBS ($r = -.365$, $p < .0005$), (d) GSE ($r = -.402$, $p < .0005$), (e) JCS ($r = -.215$, $p = .003$), (f) SSB ($r = -.411$, $p < .0005$), and (g) EOR ($r = -.368$, $p < .0005$).

The risk factor of parents' negative score was significantly negatively correlated with JCS ($r = -.160$, $p = .025$).

Therefore, reject null hypothesis 3. There is sufficient evidence to indicate that individual risk factors are negatively correlated with protective factors and resilience. Research Hypothesis 3 is supported.

Research question 4. What is the relationship among increased numbers of risk factors, protective factors, and resilience?

Alternative hypothesis 4. Increased numbers of risk factors are negatively correlated with protective factors and resilience.

The variable of risk factor score was significantly negatively correlated with resilience score ($r = -.461$, $p < .0005$). Risk factor score was also significantly

negatively correlated with protective factors of (b) HHI ($r = -.409, p = .005$), (c) SWBS ($r = -.354, p < .0005$), (d) GSE ($r = -.401, p < .0005$), (e) JCS ($r = -.369, p = .003$), (f) SSB ($r = -.419, p < .0005$), and (g) EOR ($r = -.411, p < .0005$).

Therefore, reject null hypothesis 4. There is sufficient evidence to indicate that increased numbers of risk factor is negatively correlated with protective factors and resilience. Research Hypothesis 4 is supported.

Research question 5. What is the relationship of positive outcome, protective factors, and resilience?

Alternative hypothesis 5. Positive outcomes are positively correlated with protective factors and resilience.

Positive outcome, measured with SWLS was significantly positively correlated with resilience score ($r = .699, p < .0005$). SWLS was also significantly positively correlated with protective factors of (b) HHI ($r = .710, p = .005$), (c) SWBS ($r = .598, p < .0005$), (d) GSE ($r = .670, p < .0005$), (e) JCS ($r = .595, p = .003$), (f) SSB ($r = .626, p < .0005$), and (g) EOR ($r = .644, p < .0005$). The regression training and validation models for positive outcome also indicated significant coefficients of HHI and JCS, which were positive in value indicating that when values of HHI or JCS increased, so did the SWLS value representing positive outcome.

Therefore, reject null hypothesis 5. There is sufficient evidence to indicate that positive outcome is positively correlated with protective factors and resilience. Research Hypothesis 5 is supported.

Research question 6. What is the relationship of negative outcome, protective factors, and resilience?

Alternative hypothesis 6. Negative outcomes are negatively correlated with protective factors and resilience.

Negative outcome, measured with HSCL-25 was significantly negatively correlated with resilience score ($r = -.728, p < .0005$). HSCL-25 was also significantly negatively correlated with protective factors of (b) HHI ($r = -.736, p = .005$), (c) SWBS ($r = -.675, p < .0005$), (d) GSE ($r = -.658, p < .0005$), (e) JCS ($r = -393, p < .0005$), (f) SSB ($r = -.654, p < .0005$), and (g) EOR ($r = -.695, p < .0005$). The regression training and validation models for negative outcome also indicated significant coefficients of RS, SWBS, and EOR, which were negative in value indicating that when values of RS, SWBS, or EOR increased, the value representing negative outcome, HSCL-25, decreased.

Therefore, reject null hypothesis 6. There is sufficient evidence to indicate that negative outcome was negatively correlated with protective factors and resilience. Research Hypothesis 6 is supported.

CHAPTER 6

Summary, Conclusions, and Recommendations

This chapter presents the summary and conclusions of this research study on the predictors of resilience and their influence on adaptation after elective abortion. The strengths and limitations of the study are also presented. The chapter concludes with recommendations for future research studies and implications for nursing practice.

Summary

The resilience of women who have had an induced abortion has never been investigated. Therefore, the purposes of this study were: (1) to determine the relationship between resilience and protective factors (hope, spirituality, self-efficacy, coping skills, social support, and effectiveness in obtaining resources); (2) to determine the relationship between resilience and risk factors (educational status, mental and health status, socio-economic status, parental history of mental disorder, family breakdown/conflict, and presence of a stressful event); and (3) to determine the relationship of resilience and protective factors with positive (adaptation) and negative outcomes (depression, anxiety, and somatization symptoms). Additionally, this study investigated whether resilience, protective factors, and risk factors can be predictive of positive or negative outcomes following induced abortion.

The theoretical framework that guided this study was summarized by Richardson (2002) as the three waves of resilience inquiry. The first wave of resilience inquiry defined as an individual trait, the second as a process, and the third as identifying the motivational forces within the individuals and groups. The concept of resilience continues to evolve. Several researchers proposed three models of resilience –

compensatory, protective, and challenge models to – explicate how promotive (protective) factors interact with risk factors to change or amend the negative outcome (Garmezy et al., 1984; Rutter, 1985; Zimmerman & Arunkumar, 1994). However, the studies on resilience do not present a consistent operational definition (Nagliere & Lebuffe, 2005; Tedeschi & Kilmer, 2005). To tackle this need, this study proposed an expanded model of resilience titled "Model of Resilience - Expanded Version (M-REV)." The M-REV addresses many of the inconsistencies seen in previous study about resilience.

Kaplan (1999) proposed that the causes of many inconsistencies in the definition of resilience were a lack of distinction between resilience and outcome, differences in the differentiation of outcomes, and variances in the definition of protective factors and risk factors. Also, most researchers investigated the concept of resilience using a single risk factor and a single protective factor (Wong, Eccles, & Sameroff, 2003). However, contrary to the early findings on resilience, risk factors, and protective factors do not work independently; instead, they interact to reciprocally impact each other (Luthar et al., 2000; Sameroff et al., 2003). In contrast, the M-REV measures the concept of resilience separately to establish its own operational identity and differentiate it from protective factors, risk factors, and outcomes. In order to demonstrate that resilience is a dynamic, modifiable process that involves the interactions between risk factors, protective factors, and outcomes, this study proposed to evaluate the interactions between resilience, a number of risk factors, and protective factors, so that the mechanism of the phenomenon would be better understood. Individuals are subjected to multiple risk factors and influenced by multiple protective factors; thus, to enhance the richness of this concept,

M-REV investigated several protective and risk factors. The M-REV model revised and expanded the existing models of resilience by the inclusion of positive outcome as another possible effect, instead of only focusing on the negative outcomes. This will expand an understanding of the influences of resilience.

The study was guided by research questions that evaluated the relationship between resilience, risk factors, protective factors, and outcomes. The M-REV model was evaluated using multiple risk factors, protective factors, and positive and negative outcomes. The research design of this study was a survey research design using correlational and multiple regression analyses and utilized internet-based, self-administered questionnaires (online surveys) to gather data and information. After obtaining the approval from the University of Nevada Las Vegas IRB, an internet survey was established using the Survey Monkey website. A link was generated to access the consent form and complete the questionnaire. The participants were recruited by convenience sampling from hospitals, private abortion clinics, county clinics, and various community sites. Strict confidentiality, anonymity, and the participants' ability to skip particular questions in the survey were preserved during the course of the study.

A sample of 216 women who have had induced abortion was the target population of the study. Numerous demographics and other descriptive variables were collected. A total of nine survey instruments were utilized in this study: (a) The Resilience Scale (RS), (b) The Herth Hope Index (HHI), (c) The Spiritual Well-Being Scale (SWBS), (d) The General Self-Efficacy Scale (GSE), (e) The Jalowiec Coping Scale (JCS), (f) The Social Support Behaviors (SSB), (g) Effectiveness in Retaining Resources Scale (EOR), (h) Satisfaction With Life Scale (SWLS), and (i) Hopkins Symptom Check List-25 (HSCL-

25). The Cronbach's coefficient alpha value of internal consistency for each of the 9 instruments ranged from .863 - .997, indicating a high internal consistency. Since a Cronbach's coefficient alpha value of .80 or greater indicates good reliability of an instrument with the data collected (Tabachnick & Fidell, 2007), all the nine instruments used in this study demonstrated strong reliability scores.

The dataset was investigated for the inferential analysis assumptions. The assumptions of outlier, linearity, homoscedasticity, and multicollinearity were not violated. The normal Q-Q plots indicated normality for all nine variable constructs. The assumption of normality was not seriously violated so parametric tests were used on all nine of the continuous variables during inferential analysis, without transformation of the variables.

A series of bi-variate correlations and two multiple regression analyses were carried out to answer the research questions by testing the hypotheses of this study. A correlational analysis was performed that included all 24 independent variables, two dependent variables, and two additional variables that were constructed to measure increased numbers of protective and risk factors, for a total of 28 variables.

The study tested two multiple regression models were tested using a stepwise method to regress the dependent variables. The first regression's dependent variable was the positive outcome, defined by each participant's mean SWLS score. The four predictors HHI, JCS, parent/participant negative score, and homeownership were significant for the outcome of SWLS suggesting that the size and direction of relationship between SWLS and independent variables HHI, JCS, and homeownership suggests that positive outcome increased when values of the predictors increased. The negative value of the

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parent/participant negative outcome with SWLS suggests that the positive outcome of SWLS decreased when the score of the parents/participant negative outcome variable increased.

The dependent variable for the second regression utilized the negative outcome, defined by each participant's mean HSCL-25 score. The four predictors RS, SWBS, EOR, and employment status were significant for the outcome of HSCL-25. The size and direction of the relationship between HSCL-25 and the independent variable RS, SWBS, and EOR suggests that negative outcome decreased when values of the predictors increased. The positive value of the employment status with HSCL-25 suggests that the negative outcome of HSCL-25 increased when a participant was employed.

Conclusions

Long-term health consequences of induced abortion are poorly investigated (Thorp et al., 2003). A review of literature on the psychological effects of abortion among women reflected numerous inconsistencies. Few studies concluded that there was no psychological impact on women after an induced abortion (Kero, Hogberg, & Lalos, 2004; Pope, Adler, & Tschann, 2001). Several studies found that women develop psychopathology after abortion (Broen, et al. 2006; Cougle, Reardon, & Coleman, 2003). This study found that 51% of the participants have been receiving medical treatment in the past 5 years for headaches or migraines, 44% are being treated for stomach or intestinal problems, 23% have asthma or lung problems that require intervention, 21% use treatment for back pain or arthritis, 14% are receiving treatment for alcoholism, and 11% have heart problems. Seventeen percent reported no medical problems. Based on the participants' responses (Appendix M), 24% developed psychosomatic illnesses less

than a year after their induced abortion, 18% developed illnesses within a year after their induced abortion, and 3% developed medical problems within 2 years after their induced abortion.

Of the women participants in this study 34% experienced depression, 23% reported anxiety, 14% experienced panic attacks, and 11% were diagnosed as bipolar. Forty-three percent of the participants report having no psychiatric symptoms. Based on the participants' responses (Appendix N), 30% were diagnosed with psychiatric problem within 5 years after their induced abortion and 7% were diagnosed with a psychiatric condition within 6-10 years after their induced abortion.

This study did not specifically focus on the physical and psychological impact of induced abortion by measuring the participants' prior medical and psychiatric conditions prior to their abortion. This study could not ascertain if these medical illnesses and psychiatric symptoms were pre-existing conditions from prior to their induced abortion or whether the induced abortion may have caused these symptoms. Fifty-seven percent of these women are employed while 40% are unemployed. Fourteen percent of the respondents earn from $20,001 - $30,001 per year and another 14% earn the average of $30,001 - $40,000 per year while 12% earn from $10,001 - $20,000 per annum and another 12% earn from $40,001 - $50,000 annually (Appendix O). Due to financial constraints or lack of health care benefits, these women participants might not have sought medical attention prior to their induced abortion. For some women who asked for medical help, they might not have been screened by the health care providers for possible psychosomatic symptoms and psychiatric illnesses even before they had the induced

abortion. The findings only show the psychiatric and medical profile of these women after their induced abortion.

No study has ever explored the resilience in women who have had an induced abortion. This study proposed to expand and revise the existing model of resilience by generating another model named M-REV to offer a possible link that can explicate the inconsistencies in the psychological findings in women who have had the induced abortion as well as to address the discrepancies that plagued the concept of resilience. This study demonstrated resilience as a continuum (Block & Block, 1980) and a dynamic process (Dyer & McGuinnesss, 1996) that shared transactions between the individual and the environment. The M-REV model depicted the interactions of resilience with risk and protective factors and outcomes.

Many previous studies focused on single protective factor or single risk factor. However, a review of literature identified several relevant protective and risk factors that were incorporated into the M-REV model. Risk factors tend to co-vary and can continue steadily over time or can be resistant to change; however, the presence of protective factors can moderate or decrease the effect of risk factors (Jessor, Van Den Bos, Vanderryn, Costa, & Turbin, 1995). Some researchers contend that protective factors must interact with risk factors to predict outcome (Garmezy et al., 1984; Rutter, 1987). Protective factors have additive effects on resilience and positive outcome (Masten et al., 1988). Hollister-Wagner, Foshee, and Jackson (2001) suggested that the higher levels of protective factors could buffer or neutralize the risk factors and negative outcomes. This study showed that statistically significant evidence indicates that individual protective factors were positively correlated with resilience. Additionally, this study further

demonstrated that there was a statistically significant evidence to support that increased numbers of protective factors were positively correlated with resilience.

Risk factors have direct effects on the development of psychopathology (Reuter, 1990) and negative outcomes by decreasing the level of resilience and increasing the probability of developing psychopathology (Maste & Gamerzy, 1985). Aside from the cumulative effect of risk factors (Ruther, 2000), the continuous presence of increased risk factors over time also amplifies its impact (Sameroff, Seifer, Baldwin, & Baldwin, 1993), thereby decreasing resilience and increasing the probability of negative outcomes (Ruther, 2000). This study corroborates those findings. The results confirmed that there was statistically significant evidence that individual risk factors were negatively correlated with protective factors and resilience. Moreover, statistically significant evidence showed that increased numbers of risk factors was negatively correlated with protective factors and resilience.

The studies on resilience are plagued with a lack of inconsistent operational definitions (Nagliere & Lebuffe, 2005). Some scholars described resilience as the absence of psychopathology (Fergus & Zimmerman, 2005). However, some scholars defined resilience as having achieved high academic excellence (Kaplan, 1999). Others see resilience as associated with a good outcome in the face of adversities (Rutter, 2000). Some findings demonstrated that individuals with fewer than three protective factors will exhibit no positive outcomes when faced with the highest level of risk (Cicchetti et al., 2007) and will ultimately develop negative outcomes. This study investigated two types of outcomes – positive and negative – to address these identified inconsistencies in the concept of resilience. In this study, the definition of resilience is an individual's ability in

the face of overwhelming adversity to adapt and restore equilibrium to one's life and to avoid the potentially deleterious effects of stress (Wagnild & Young, 1993). It is measured by the Resilience Scale. The findings of the study indicated that there was statistically significant evidence to demonstrate that positive outcome was positively correlated with protective factors and resilience. Likewise, there was statistically significant evidence to indicate that negative outcome was negatively correlated with protective factors and resilience.

The findings of this study confirm an emerging phenomenon, and some of the findings are surprising. Being employed, which is typically considered a positive predictor, was reflected as somewhat negative by some women participants. The negative outcome of HSCL-25 increased when a participant was employed. This phenomenon needs further investigation as to the full meaning of work for women. Women who are already experiencing a stressful situation might look at work as an additional stress. Being employed might be in reality considered as a risk factor for many people instead of a protective factor. Increasing the type of stress that a person is experiencing might also increase the likelihood of an individual succumbing to negative outcomes.

Strengths of the Study

This study had several strengths that will be reviewed in this section. This study's questionnaires were valid and reliable and supported meaningful and significant findings. The high reliability scores and the history of established validity confirms that all the nine survey tools used accurately measured all the predictors or variables of the study. The assumptions on outlier, linearity, homoscedasticity, and multicollinearity were not

violated. The normal Q-Q plots reflected normality. The tests used were robust to deviations from normality; hence, the assumption of normality was not seriously violated. The use of multiple regression analysis is the appropriate statistical technique to predict and examine the influences of protective factors and risk factors on resilience and the influence of resilience on the outcome. Additionally, the use of the stepwise correlation regression allowed the use of data to be broken down even further to ascertain what factors or variables attributed to the differences among the participants. Furthermore, using the M-REV model demonstrated that resilience, protective factors, and risk factors could predict whether a woman would experience positive or negative outcomes following an induced abortion.

This study is the first to investigate resilience among women who have had abortion. Employing the survey research design using correlational and multiple regression analyses is the most appropriate method to use for this study. Many problematic issues in the fields of nursing, medical, and social sciences are not acquiescent to experimentation, so correlational research will remain significant in these fields. "Correlation research is often strong in realism and therefore has an intrinsic appeal for solving practical problems" (Polit & Beck, 2009, p. 195). The aim of this study was to determine and describe the relationship of resilience, protective factors, risk factors, and outcomes. The findings of this study can provide the first foundation for hypothesis generation or theory development for the concept of resilience.

There were some missing data because there were participants who did not answer all questions for all nine instruments. As a result, the study used mean scores instead of summed scores so all the scores of the participants' records that did not complete the

questionnaires could be included. Mean scores allowed the retention of more information instead of excluding the incomplete scale scores. The mean scores were very useful in summarizing the findings from the rating scales used in this study.

This study has exceeded the target population of 200. The women participants came from diverse ethnicity, educational status, economic status, and religious backgrounds. Most participants responded to all the questions and their responses represented a variety of their experiences. Choosing the natural setting for the participants to access the questionnaires online provide a positive influence in the way participants feel, behave, and respond to the questions (Polit & Beck, 2004) and removed the sense of feeling pressured or judged.

Limitations of the Study

The available studies on women who had induced abortion are insufficient and the reports have conflicting findings on the effects of abortion on the physical and mental well-being of women (Thorp et al., 2003). This was the first research study that investigated the predictors of resilience and their influences on adaptation after women had the elective abortion. Women who have had abortions are considered hard-to-reach population because of the stigma of having an abortion. Additionally, there is no known complete registry for women who have had the abortions. This researcher was confronted with the reality that it was very difficult to find these women and get them to come forward and complete the online survey. It took more than a year to finally reach an adequate number of women ($N = 216$) to participate in this study. The accessible population for this population was estimated to be below 1 million. This nonprobability sampling is, thus far, the most feasible method to seek this hard-to-reach population and

examine in depth the factors that impact their well-being. Regardless of the size of the sample or the total number of the participants, findings from the convenience sampling cannot be generalized to the entire population of women who have had abortion because enough representativeness cannot be guaranteed.

In general, survey data are susceptible to systematic measurement error. The participants in this study might have encountered some problems with the computers they were using, possible internet interference while answering the survey online, and outside noises while they were completing the questionnaires online. These could have affected the way they answered the questions or be responsible for the skipped questions. They were also asked to recall some information over the past years that may have caused difficulty for some participants. Systematic measurement errors could have occurred because of participants not understanding the question and thus answering based on a misinterpretation. Participants might have skipped the question or not recorded an honest answer because of embarrassment. Failing to answer all the questions might also be attributed to the participants' exhaustion.

Recommendations

The section discusses the recommendations for future research studies based on the results of this study and findings from related literature. The recommendations stem from the methodological design and the variables examined. The implications of the results to nursing practice are included.

Increasing the recruitment of the accessible population for this particular hard-to-reach population may be beneficial. In 2006, CDC reported that 33.4% - 59.5% of pregnancies in 24 states were unintended (PRAMS, 2009). Encouraging all health care

providers, hospitals, clinics, and community organizations from 50 states of the USA to report the actual number of women undergoing abortion to CDC can give future researchers knowledge of the actual numbers of the target population. Recruiting a probability sample of the target population can provide the ability to generalize the findings of the study.

All the nine survey instruments used in this study were valid and reliable tools. However, future studies may try using fewer and shorter versions of questionnaires to prevent possible participants' fatigue.

Because the participants are difficult to access, a series of studies using the nonprobability samples could also be performed. Replication of this study using more participants would further strengthen the significance of the findings of this study and the likelihood of generalizability of the findings.

The study found that the increased values of the predictors of resilience, spiritual well-being, and effectiveness in obtaining resources had decreased the negative outcome in women who have had abortion. However, being employed increased negative outcomes. Future studies should investigate the relationship of employment status and risk factors present in women who have had abortion and the effect of employment on resilience and protective factors.

Implications for Theory

This study was an attempt to explicate the inconsistent results in the various studies on the impact of induced abortion on women's physical and psychological state. This study focused on the resilience among women who have had abortion in an effort to discover if resilience was the missing link that could explain the disparity in the

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relationship of induced abortion and psychological effects in women who experienced it. This study addressed the inconsistencies that plagued the concept of resilience by proposing the expanded model of resilience, the "Model of Resilience – Expanded Version (M-REV)." This revised model bridged the gap that existed in the studies on resilience by looking at how resilience is affected by important life variables and separating resilience from positive factors and risk factors and testing the positive and negative outcomes.

Using the M-REV model, this study specifically identified and measured resilience as a variable separate from protective factors, risk factors, and outcomes. The M-REV model looked at these variables separately to measure the relationships and interactions between resilience, risk factors, protective factors, and outcomes. The revised and expanded model further supported the three models of resilience – compensatory, protective, and challenge – as proposed by several researchers. The M-REV model combined all three models of resilience to demonstrate the various interactions of resilience with risk factors and positive factors. The M-REV model expanded the three models of resilience and further enhanced the richness of the concept of resilience by investigating not only the negative outcomes, but also included the positive outcomes as another possible impact of resilience. This study identified several risk factors and protective factors to evaluate and better understand the mechanism of this phenomenon.

Based on the M-REV model, there were several theoretical implications identified in this study. This study showed that there was sufficient evidence that individual protective factors and increased numbers of protective factors were positively correlated with resilience. The M-REV model indicated that there was sufficient evidence that

individual risk factors and increased numbers of risk factors were negatively correlated with protective factors and resilience. The findings of this study confirmed that positive outcomes were positively correlated with protective factors and resilience, while negative outcome was negatively correlated with protective factors and resilience.

Implications for Nursing Practice

The protective factors and risk factors measured in this study were based on the theoretical and empirical studies of numerous researchers who focused on the impact of protective factors and risk factors. Factors such as hope, spirituality, self-efficacy, coping skills, presence of social support, and effectiveness in obtaining resources are very important in reducing the likelihood of succumbing to psychological effects like depression and anxiety for women who have had abortion. Nurses and health care providers in various community agencies, clinic, and hospitals that care for women who are contemplating abortion or who have had abortion need to be aware of these risk factors and protective factors because these predictors have strong influences on whether women will experience depression or anxiety post-abortion. Identifying the presence of and further strengthening the identified protective factors can result in positive outcomes in spite of the stress abortion can cause in women. The findings of this study substantiate the importance of early recognition of the risk factors like the presence of mental and physical illness, parental history of psychiatric disorder, and negative family relationship when screening women prior and following an abortion. Immediate referrals to various organizations, programs, or support groups must be implemented to prevent the likelihood of developing negative psychological sequelae among women who have had abortion.

This study precisely defined and measured resilience. Identifying and promoting the qualities of positive factors while identifying the components of risk factors can influence resilience. Enhancing the qualities of resilience can further thwart the development of negative outcomes and enhance positive outcomes. The findings of this study provide health care providers with in-depth knowledge and understanding of the characteristics of resilience as a dynamic and modifiable concept and process. Also, the M-REV model demonstrated significant positive and negative interactions between risk factors, positive factors, resilience, positive outcome, and negative outcomes. By using this model, health care providers can identify and strengthen protective factors, identify the risk factors, early diagnosis and treat symptoms, and create holistic treatment plans and resilience-based interventions. The revised model can be used as a framework to generate practice guidelines on how to care for women who have had induced abortion. The M-REV model showed the significance of resilience in enhancing positive outcomes and predicting negative outcomes, thereby, preventing and intervening in the development of negative outcomes in women who have had induced abortions.

Implications for Policy and Research

Research studies focusing on women are severely lacking. Available studies on the effects of abortion in women were insufficient and the findings presented in many studies were conflicting. This study suggested that more studies specific to women particularly on this hard-to-reach population must continue. This study investigated the presence of risk factors, protective factors, and resilience to predict positive or negative outcomes after an abortion. Because of difficulty accessing this hard-to-reach population, replication of this study or a series of nonprobability samples must be achieved. Results

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from the series of studies using more participants can advance the meaningful findings of this study and facilitate the generalizability of the findings. Policies, programs, and services cannot be implemented without supporting findings from more research studies that can recognize the particular needs of women who have had abortion and factors that can affect their care.

APPENDIX A

Model of Resilience – Expanded Version (M-REV)

M-REV is a model that explains the influence of resilience after a stressful event – induced abortion. It are used to test the following hypotheses: (1) Individual protective factors are positively correlated with resilience; (2) Increased numbers of protective factors are positively correlated with resilience; (3) Individual risk factors are negatively correlated with protective factors and resilience; (4) Increased numbers of risk factors are negatively correlated with protective factors and resilience; (5) Positive outcome are positively correlated with protective factors and resilience; (6) Individual negative outcomes are negatively correlated with protective factors and resilience; (7) Increased numbers of negative outcomes are negatively correlated with protective factors and resilience.

Protective Factors

hope, spirituality,
self-efficacy,
coping skills,
social support, and
effectiveness in
obtaining resources

Risk Factors

educational status, history of
mental and physical illness,
parental history of psychiatric
disorder, family breakdown /
conflicts, and socio-economic
disadvantage

−

+

−

Resilience

+

−

Positive Outcome / Adaptation

Negative Outcome / Maladaptatio

depression,
anxiety, and
somatization
symptoms

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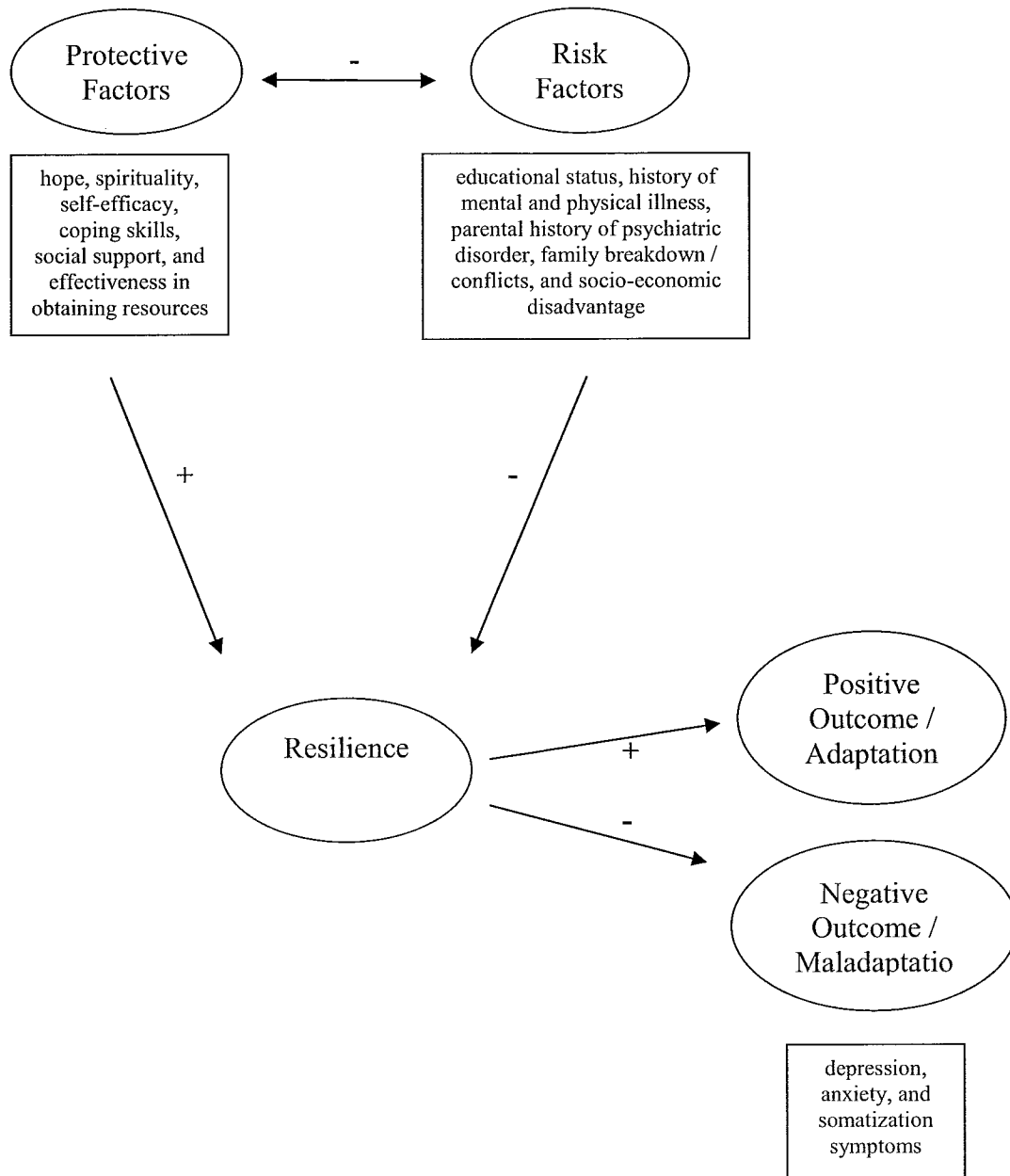
Demographic Data Form

Instructions: Please respond to the following questions as thoroughly as possible.

Required information includes age; all other requested information is optional. The

information provided on this form will be kept confidential; no names will be used and

all information gathered will be used for the sole purposes of the research study. Thank

you.

1. Age at last birthday: _____ Year of birth: _____

2. Race/Ethnicity:

    American Indian _____

    Asian or Pacific Islander _____

    Black or African American _____

    Caucasian _____

    Hispanic or Latino _____

    Others _____

3. Marital Status:

    Divorced _____

    Living Together _____

    Married _____

    Never Married _____

    Separated _____

    Widowed _____

4. Educational Status:

     Elementary or less _____

     Middle School graduate or less _____

     Some High School _____

     High School Graduate _____

     Technical/Vocational _____

     Some College _____

     College graduate _____

     Graduate level _____

5. How many people do you live with? _____   How are they related to you? _____

6. Do you have any children?   Yes _____   No _____

     If yes, how many? _____

     What ages are they? _____

7. Do you own the place where you live?   Yes _____   No _____

8. Please tell us which of the following ranges correspond to your household annual income last year.

     Under $5,000 _____ $50,001 - $60,000 _____

     $5,001 - $10,000 _____ $60,001 - $70,000 _____

     $10,001 - $20,000 _____ $70,001 - $80,000 _____

     $20,001 - $30,000 _____ $80,001 - $90,000 _____

     $30,001 - $40,000 _____ $90,001 - $100,000 _____

     $40,001 - $50,000 _____   over $100,001 _____

9. Are you employed?   Yes _____   No _____

10. What medical conditions have you received treatment for?

     a. Stomach or ulcers or intestinal problems _____   Year diagnosed _____

     b. Headaches or migraines _____   Year diagnosed _____

c. Asthma or bronchitis or any lung problem _____ Year diagnosed _____

d. Back pain or arthritis _____ Year diagnosed _____

e. Diabetes or high blood sugar _____ Year diagnosed _____

f. Epilepsy or seizure _____ Year diagnosed _____

g. Heart problem (High blood pressure, Congestive heart failure, chest pain, etc.) _____ Year diagnosed _____

h. Stroke _____ Year diagnosed _____

i. HIV/AIDS _____ Year diagnosed _____

j. Alcoholism _____ Year diagnosed _____

k. Injuries (car accident, paralysis, etc.) _____ Year diagnosed _____

l. Drug Abuse _____ Year diagnosed _____

m. Others, please specify _____ Year diagnosed _____

11. What psychological or psychiatric conditions have you received treatment for?

a. Depression _____ Year diagnosed _____

b. Anxiety _____ Year diagnosed _____

c. Panic Attacks _____ Year diagnosed _____

d. Bipolar (Manic Depressive) _____ Year diagnosed _____

e. Schizophrenia _____ Year diagnosed _____

f. Post-Traumatic Stress Disorder _____ Year diagnosed _____

g. Obsessive Compulsive Disorder _____ Year diagnosed _____

h. Others, please specify _____ Year diagnosed _____

12. What psychological or psychiatric conditions have your parent/s received treatment for?

	Mother	Father
a. Depression	_____	_____
b. Anxiety	_____	_____
c. Panic Attacks	_____	_____

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d. Bipolar (Manic Depressive)   _____   _____

e. Schizophrenia   _____   _____

f. Post Traumatic Disorder   _____   _____

g. Obsessive Compulsive   _____   _____

h. Others, please specify   _____   _____

13. What is your parents' relationship (or other guardians)?

_____ loving   _____ strained

_____ abusive (emotionally or physically or

verbally or psychologically)   _____ amicable

14. Are you currently affiliated (an official member) with a church or organized place of worship?   Yes _____   No _____

If yes, please specify the major denomination of your place of worship.

_____ Baptist   _____ Hindu

_____ Buddhism   _____ Islam

_____ Catholic   _____ Jewish
_____ Christian/Protestant   _____ Others, please specify

15. How often do you attend religious or spiritual services?
_____ Almost daily (4 or more times a week)
_____ At least once weekly (1 to 3 times per week)
_____ At least once monthly (1 to 3 times a month)
_____ Never or only on observed denominational holiday
(e.g. Christmas, Passover, etc.)

16. Number of previous abortions: _____ Age/s when you had the abortion: _____

17. Types of previous abortion/s:

_____ Spontaneous Abortion or Miscarriage   How many times? _____

_____ Therapeutic Abortion   How many times? _____

_____ Surgical Abortion   How many times? _____

_____ Medical Abortion   How many times? _____

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18. Who else is your family had abortions?

_____ Mother   _____ Grandmother
_____ Sister   _____ Daughter
_____ Niece   _____ Cousin
_____ Others, please specify

APPENDIX C

Herth Hope Index (HHI)

Listed below are a number of statements. Read each statement and place an (X) in the box

that describes how much you agree with that statement <u>right now.</u>

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have a positive outlook toward life.				
2. I have short-and/or long-range goals.				
3. I feel all alone.				
4. I can see possibilities in the midst of difficulties.				
5. I have a faith that gives me comfort.				
6. I feel scared about my future.				
7. I can recall happy/joyful times.				
8. I have a deep inner strength.				
9. I am able to give and receive caring/love.				
10. I have a sense of direction.				
11. I believe that each day has potential.				
12. I feel my life has value and worth.				

APPENDIX D

Spiritual Well-Being Scale (SWBS)

For each of the following statements, please circle the choice that best indicates the extent of your agreement or disagreements as it describes your personal experience.

6 = Strongly Agree   3 = Disagree

5 = Moderately Agree   2 = Moderately Disagree

4 = Agree   1 = Strongly Disagree

1. I don't find much satisfaction in private prayer with God.   6 5 4 3 2 1

2. I don't know who I am, where I came from, or where I'm going. 6 5 4 3 2 1

3. I believe that God loves me and cares about me.   6 5 4 3 2 1

4. I feel that life is a positive experience.   6 5 4 3 2 1

5. I believe that God is impersonal and not interested in my daily   6 5 4 3 2 1

   situations.

6. I feel unsettled about my future.   6 5 4 3 2 1

7. I have a personally meaningful relationship with God.   6 5 4 3 2 1

8. I feel very fulfilled and satisfied with life.   6 5 4 3 2 1

9. I don't get much personal strength and support from my God.   6 5 4 3 2 1

10. I feel a sense of well-being about the direction my life is   6 5 4 3 2 1

    headed in

11. I believe that God is concerned about my problem.   6 5 4 3 2 1

12. I don't enjoy much about life.   6 5 4 3 2 1

13. I don't have a personally satisfying relationship with God.   6 5 4 3 2 1

14. I feel good about my future.   6 5 4 3 2 1

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15. My relationship with God helps me not to feel lonely.   6 5 4 3 2 1

16. I feel that life is full of conflict and unhappiness.   6 5 4 3 2 1

17. I feel most fulfilled when I'm in close communion with God.   6 5 4 3 2 1

18. Life doesn't have much meaning.   6 5 4 3 2 1

19. My relation with God contributes to my sense of well-being.   6 5 4 3 2 1

20. I believe there is some real purpose for my life.   6 5 4 3 2 1

General Self-Efficacy Scale (GSE)

The construct of perceived self-efficacy reflects an optimistic self-belief (Schwarzer, 1992). This is the belief that one can perform a novel or difficult tasks, or cope with adversity – in various domains of human functioning. The General Self-efficacy Scale (GSE) was created to assess a general sense of perceived self-efficacy with the aim in mind to predict coping with daily hassles as well as adaptation after experiencing all kinds of stressful life events. Using the scale listed below, please accurately respond to each of the following statements. Thank you.

1 = not at all true

2 = hardly true

3 = moderately true

4 = exactly true

1. I can always manage to solve difficult problems if I try hard enough.

    1   2   3   4

2. If someone opposes me, I can find the means and ways to get what I want.

    1   2   3   4

3. It is easy for me to stick to my aims and accomplish my goals.

    1   2   3   4

4. I am confident that I could deal efficiently with unexpected events.

    1   2   3   4

5. Thanks to my resourcefulness, I know how to handle unforeseen situations.

    1   2   3   4

6. I can solve most problems if I invest the necessary effort.

        1   2   3   4

7. I can remain calm when facing difficulties because I can rely on my coping abilities.

        1   2   3   4

8. When I am confronted with a problem, I can usually find several solutions.

        1   2   3   4

9. If I am in trouble, I can usually think of a solution.

        1   2   3   4

10. I can usually handle whatever comes my way.

        1   2   3   4

Schwarzer, R., & Jerusalem, m. (1995). Generalized Self-Efficacy Scale. In J. Weinman, S. Wrights, & M. Johnston, Measures in health psychology: A user's portfolio. Causal and control beliefs (pp. 35-37). Windsor, UK: NFER-NELSON. [Retrieved on December 12, 2008; http://userpage.fuberlin.de/-health/engscal.htm].

Jalowiec Coping Scale (JCS)

This questionnaire is about how you cope with stress or tension and what you do to handle stressful situations. In particular, this study is interested in how much you have coped with the stress of having had an induced abortion.

This questionnaire lists many different ways of coping with stress. Some people use a lot of different coping methods; some people use only a few. You are asked two questions about each different way of coping with stress:

Part A

How often have you used that coping method to handle the stress listed above?

For each coping method listed, circle one number in Part A to show how often you have used that method to cope with the stress listed above. The meaning of the numbers in Part A is as follows:

0 = never used   1 = seldom used   2 = sometimes used   3 = often used

Part B

If you have used that coping method, how helpful was it in dealing with that stress?

For each coping method that you have used, circle a number in Part B to show how helpful that method was in coping with the stress listed above. The meaning of the numbers in Part B is as follows:

0 = not helpful   1 = slightly helpful   2 = fairly helpful   3 = very helpful

If you did not use a particular coping method, then do not circle any number in Part B for that coping method.

	COPING METHODS	Part A How often have you used each coping method?				Part B If you have used that method, how helpful was it?			
		Never Used	Seldom Used	Some times Used	Often Used	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
1	Worried about the problem	0	1	2	3	0	1	2	3
2	Hoped that things would be better	0	1	2	3	0	1	2	3
3	Ate or smoke more than usual	0	1	2	3	0	1	2	3
4	Thought out different ways to handle the situation	0	1	2	3	0	1	2	3
5	Told yourself that things could be much worse	0	1	2	3	0	1	2	3
6	Exercised or did some physical activity	0	1	2	3	0	1	2	3
7	Tried to get away from the problem for a while	0	1	2	3	0	1	2	3
8	Got mad and let off steam	0	1	2	3	0	1	2	3
9	Expected the worst that would happen	0	1	2	3	0	1	2	3
10	Tried to put the problem out of your mind and think of someone else	0	1	2	3	0	1	2	3

	COPING METHODS	Part A How often have you used each coping method?				Part B If you have used that method, how helpful was it?			
		Never Used	Seldom Used	Some times Used	Often Used	Not Help ful	Slightly Helpful	Fairly Helpful	Very Help ful
11	Talked the problem over with family or friends	0	1	2	3	0	1	2	3
12	Accepted the situation because very little could be done	0	1	2	3	0	1	2	3
13	Tried to look at the problem objectively and see all sides	0	1	2	3	0	1	2	3
14	Daydreamed about a better life	0	1	2	3	0	1	2	3
15	Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)	0	1	2	3	0	1	2	3
16	Tried to keep the situation under control	0	1	2	3	0	1	2	3
17	Prayed or put your trust in God	0	1	2	3	0	1	2	3
18	Tried to get out of the situation	0	1	2	3	0	1	2	3
19	Kept your feelings to yourself	0	1	2	3	0	1	2	3
20	Told yourself that the problem was someone else's fault	0	1	2	3	0	1	2	3
21	Waited to see what would happen	0	1	2	3	0	1	2	3
22	Wanted to be alone to think things out	0	1	2	3	0	1	2	3
23	Resigned yourself to the situation because things looked hopeless	0	1	2	3	0	1	2	3
24	Took out your tensions on someone else	0	1	2	3	0	1	2	3
25	Tried to change the situation	0	1	2	3	0	1	2	3
26	Used relaxation techniques	0	1	2	3	0	1	2	3
27	Tried to find out more about the problem	0	1	2	3	0	1	2	3

	COPING METHODS	Part A How often have you used each coping method?				Part B If you have used that method, how helpful was it?			
		Never Used	Seldom Used	Some times Used	Often Used	Not Help ful	Slightly Helpful	Fairly Helpful	Very Help ful
28	Slept more than usual	0	1	2	3	0	1	2	3
29	Tried to handle things one step at a time	0	1	2	3	0	1	2	3
30	Tried to keep your life as normal as possible and not let the problem interfere	0	1	2	3	0	1	2	3
31	Thought about how you had handled other problems in the past	0	1	2	3	0	1	2	3
32	Told yourself not to worry because everything would work out fine	0	1	2	3	0	1	2	3
33	Tried to work out a compromise	0	1	2	3	0	1	2	3
34	Took a drink to make yourself feel better	0	1	2	3	0	1	2	3
35	Let time take care of the problem	0	1	2	3	0	1	2	3
36	Tried to distract yourself by doing something that you enjoy	0	1	2	3	0	1	2	3
37	Told yourself that you could handle anything no matter how hard	0	1	2	3	0	1	2	3
38	Set up a plan of action	0	1	2	3	0	1	2	3
39	Tried to keep a sense of humor	0	1	2	3	0	1	2	3
40	Put off facing up to the problem	0	1	2	3	0	1	2	3
41	Tried to keep your feelings under control	0	1	2	3	0	1	2	3
42	Talked the problem over with someone who had been in a similar situation	0	1	2	3	0	1	2	3
43	Practiced in your mind what had to be done	0	1	2	3	0	1	2	3
44	Tried to keep busy	0	1	2	3	0	1	2	3

	COPING METHODS	Part A How often have you used each coping method?				Part B If you have used that method, how helpful was it?			
		Never Used	Seldom Used	Some times Used	Often Used	Not Help ful	Slightly Helpful	Fairly Helpful	Very Helpful
45	Learned something new in order to deal with the problem	0	1	2	3	0	1	2	3
46	Did something impulsive or risky that you would not usually do	0	1	2	3	0	1	2	3
47	Thought about the good things in your life	0	1	2	3	0	1	2	3
48	Tried to ignore or avoid the problem	0	1	2	3	0	1	2	3
49	Compared yourself with other people who were in the same situation	0	1	2	3	0	1	2	3
50	Tried to think positively	0	1	2	3	0	1	2	3
51	Blamed yourself for getting into such a situation	0	1	2	3	0	1	2	3
52	Preferred to work thing out yourself	0	1	2	3	0	1	2	3
53	Took medications to reduce tension	0	1	2	3	0	1	2	3
54	Tried to see the good side of the situation	0	1	2	3	0	1	2	3
55	Told yourself that this problem was really not that important	0	1	2	3	0	1	2	3
56	Avoided being with people	0	1	2	3	0	1	2	3
57	Tried to improve yourself in some way so you could handle the situation better	0	1	2	3	0	1	2	3
58	Wished that the problem would go away	0	1	2	3	0	1	2	3
59	Depended on others to help you out	0	1	2	3	0	1	2	3
60	Told yourself that you were just having some bad luck	0	1	2	3	0	1	2	3

If there are any other things you did to handle the stress mentioned at the beginning, that are not on this list, please write those coping methods in the spaces below. Then circle how often you have used each coping method, and how helpful each coping method had been.

	COPING METHODS	Part A How often have you used each coping method?				Part B If you have used that method, how helpful was it?			
		Never Used	Seldom Used	Some times Used	Often Used	Not Help ful	Slightly Helpful	Fairly Helpful	Very Helpful
61		0	1	2	3	0	1	2	3
62		0	1	2	3	0	1	2	3
63		0	1	2	3	0	1	2	3

APPENDIX G

Social Support Behaviors (SSB)

People help each other out in a lot of different ways. Suppose you had some kind of

problem (were upset about something, needed help with a practical problem, were broke,

or needed some advice or guidance), how likely would (a) members of your family, and

(b) your friends be to help you out in each of the specific ways listed below. We realize

you may rarely need this kind of help, but if you did would family and friends help in the

ways indicated. Try to base your answers on your past experience with these people. Use

the scale below, and circle one number under family, and one under friends, in each row.

1: no one would do this

2: someone might do this

3: some family member/friend would probably do this

4: some family member/friend would certainly do this

5: most family members/friends would certainly do this

		(a) Family	(b) Friends
1	Would suggest doing something, just to take my mind off my problems...	1 2 3 4 5	1 2 3 4 5
2	Would visit with me, or invite me over...	1 2 3 4 5	1 2 3 4 5
3	Would comfort me if I was upset...	1 2 3 4 5	1 2 3 4 5
4	Would give me a ride if I needed one...	1 2 3 4 5	1 2 3 4 5
5	Would have lunch or dinner with me...	1 2 3 4 5	1 2 3 4 5
6	Would look after my belongings (house, pets, etc.) for awhile...	1 2 3 4 5	1 2 3 4 5

		(a) Family					(b) Friends				
7	Would loan me a car if I needed one…	1	2	3	4	5	1	2	3	4	5
8	Would joke around or suggest doing something to cheer me up…	1	2	3	4	5	1	2	3	4	5
9	Would go to a movie or concert with me…	1	2	3	4	5	1	2	3	4	5
10	Would suggest how I could find out more about a situation…	1	2	3	4	5	1	2	3	4	5
11	Would help me out with a move or other big chore…	1	2	3	4	5	1	2	3	4	5
12	Would listen if I needed to talk about my feelings…	1	2	3	4	5	1	2	3	4	5
13	Would have a good time with me…	1	2	3	4	5	1	2	3	4	5
14	Would pay for my lunch if I was broke…	1	2	3	4	5	1	2	3	4	5
15	Would suggest a way I might do something…	1	2	3	4	5	1	2	3	4	5
16	Would give me encouragement to do something difficult…	1	2	3	4	5	1	2	3	4	5
17	Would give me advice about what to do…	1	2	3	4	5	1	2	3	4	5
18	Would chat with me…	1	2	3	4	5	1	2	3	4	5
19	Would help me figure out what I wanted to do…	1	2	3	4	5	1	2	3	4	5
20	Would show me that they understood how I was feeling…	1	2	3	4	5	1	2	3	4	5
21	Would buy me a drink if I was short of money…	1	2	3	4	5	1	2	3	4	5
22	Would help me decide what to do…	1	2	3	4	5	1	2	3	4	5
23	Would give me a hug, or otherwise show me I was cared about…	1	2	3	4	5	1	2	3	4	5
24	Would call me just to see how I was doing…	1	2	3	4	5	1	2	3	4	5
25	Would help me figure out what was going on…	1	2	3	4	5	1	2	3	4	5
26	Would help me out with some necessary purchase…	1	2	3	4	5	1	2	3	4	5
27	Would not pass judgment on me…	1	2	3	4	5	1	2	3	4	5

		(a) Family	(b) Friends
28	Would tell me who to talk to for help…	1 2 3 4 5	1 2 3 4 5
29	Would loan me money for an indefinite period…	1 2 3 4 5	1 2 3 4 5
30	Would be sympathetic if I was upset…	1 2 3 4 5	1 2 3 4 5
31	Would stick by me in a crunch…	1 2 3 4 5	1 2 3 4 5
32	Would buy me clothes if I was short of money…	1 2 3 4 5	1 2 3 4 5
33	Would tell me about the available choices and options…	1 2 3 4 5	1 2 3 4 5
34	Would loan me tools, equipment, or appliances if I needed them…	1 2 3 4 5	1 2 3 4 5
35	Would give me reasons why I should or should not do something…	1 2 3 4 5	1 2 3 4 5
36	Would show affection for me…	1 2 3 4 5	1 2 3 4 5
37	Would show me how to do something I didn't know how to do…	1 2 3 4 5	1 2 3 4 5
38	Would bring me little presents of things I needed…	1 2 3 4 5	1 2 3 4 5
39	Would tell me the best way to get something done…	1 2 3 4 5	1 2 3 4 5
40	Would talk to other people, to arrange something for me…	1 2 3 4 5	1 2 3 4 5
41	Would loan me money and want to "forget about it"…	1 2 3 4 5	1 2 3 4 5
42	Would tell me what to do…	1 2 3 4 5	1 2 3 4 5
43	Would offer me a place to stay for awhile…	1 2 3 4 5	1 2 3 4 5
44	Would help me think about a problem…	1 2 3 4 5	1 2 3 4 5
45	Would loan me a fairly large sum of money (say the equivalent of a month's rent or mortgage)…	1 2 3 4 5	1 2 3 4 5

APPENDIX H

Effectiveness of Obtaining Resources Scale (EOR)

For each of the following, please circle the best choice that indicates how you perceive

yourself in obtaining resources:

1 = not very effective   3 = fairly effective

2 = slightly effective   4 = very effective

1.	Housing	1	2	3	4
2.	Material goods and resources	1	2	3	4
3.	Education	1	2	3	4
4.	Employment	1	2	3	4
5.	Health	1	2	3	4
6.	Child Care	1	2	3	4
7.	Transportation	1	2	3	4
8.	Social Support	1	2	3	4
9.	Legal Assistance	1	2	3	4
10.	Finances	1	2	3	4
11.	Issues regarding children	1	2	3	4

The Resilience Scale[tm] (RS[tm])

Date: _____

Please read the following statements. To the right of each you will find seven numbers, ranging from "1" (Strongly Disagree) on the left to "7" (Strongly Agree) on the right. Circle the number which best indicates your feelings about that statement. For example, if you strongly disagree with a statement, circle "1." If you are neutral, circle "4," and if you strongly agree, circle "7."

		Strongly Disagree				Strongly Agree		
1	When I make plans, I follow through with them.	1	2	3	4	5	6	7
2	I usually manage one way or another.	1	2	3	4	5	6	7
3	I am able to depend on myself more than anyone else.	1	2	3	4	5	6	7
4	Keeping interested in things is important to me.	1	2	3	4	5	6	7
5	I can be on my own if I have to.	1	2	3	4	5	6	7
6	I feel proud that I have accomplished things in life.	1	2	3	4	5	6	7
7	I usually take things in stride.	1	2	3	4	5	6	7
8	I am friends with myself.	1	2	3	4	5	6	7
9	I fell that I can handle many things at a time.	1	2	3	4	5	6	7
10	I am determined.	1	2	3	4	5	6	7
11	I seldom wonder what the point of it all is.	1	2	3	4	5	6	7
12	I take things one day at a time.	1	2	3	4	5	6	7
13	I can get through difficult times because I've experienced difficulty before.	1	2	3	4	5	6	7
14	I have self-discipline.	1	2	3	4	5	6	7
15	I keep interested in things.	1	2	3	4	5	6	7

		Strongly Disagree				Strongly Agree		
16	I can usually find something to laugh about.	1	2	3	4	5	6	7
17	My belief in myself gets me through hard times.	1	2	3	4	5	6	7
18	In an emergency, I'm someone people can generally rely on.	1	2	3	4	5	6	7
19	I can usually look at a situation in a number of ways.	1	2	3	4	5	6	7
20	Sometimes I make myself do things whether I want to or not.	1	2	3	4	5	6	7
21	My life has meaning.	1	2	3	4	5	6	7
22	I do not dwell on things that I can't do anything about.	1	2	3	4	5	6	7
23	When I'm in a difficult situation, I can usually find my way out of it.	1	2	3	4	5	6	7
24	I have enough energy to do what I have to do.	1	2	3	4	5	6	7
25	It's okay if there are people who don't like me.	1	2	3	4	5	6	7
26	I am resilient.	1	2	3	4	5	6	7

APPENDIX J

Hopkins Symptom Check List-25 (HSCL-25)

INSTRUCTIONS

Listed below are symptoms or problems that people sometimes have. Please read each one carefully and describe how much the symptoms bothered you or distressed you in the last week, including today. Place a check in the appropriate column.

Part I Anxiety Symptoms	Not at all	A little	Quite a bit	Extremely
1. Suddenly scare for no reason				
2. Feeling fearful				
3. Faintness, dizziness or weakness				
4. Nervousness or shakiness inside				
5. Heart pounding or racing				
6. Trembling				
7. Feeling tense or keyed up				
8. Headaches				
9. Spell of terror or panic				
10. Feeling restless or can't sit still				
11. Feeling low in energy, slowed down				
12. Blaming yourself for things				
13. Crying easily				
14. Loss of sexual interest or pleasure				
15. Poor appetite				
16. Difficulty falling asleep, staying asleep				
17. Feeling hopeless about future				
18. Feeling blue				
19. Feeling lonely				
20. Thoughts of ending your life				
21. Feeling of being trapped or caught				
22. Worry too much about things				
23. Feeling no interest in things				
24. Feeling everything is an effort				
25. Feeling of worthlessness				

Satisfaction With Life Scale (SWLS)

Below are five statements that you may agree or disagree with. Using the 1 – 7 scale below, indicate your agreement with each item by placing the appropriate number on the line preceding that item. Please be open and honest in your responding.

- 7 - Strongly agree
- 6 – Agree
- 5 – Slightly agree
- 4 – Neither agree or disagree
- 3 – Slightly disagree
- 2 – Disagree
- 1 – Strongly disagree

_____ In most ways my life is close to my ideal.

_____ The condition of my life are excellent.

_____ I am satisfied with my life.

_____ So far I have gotten the important things I want in life.

_____ If I could live my life over, I would change almost nothing.

- 31 – 35 Extremely satisfied
- 26 – 30 Satisfied
- 21 – 25 Slightly satisfied
- 20 Neutral
- 15 – 19 Slightly dissatisfied
- 10 – 14 Dissatisfied
- 5 – 9 Extremely dissatisfied

Permission to Use: The scale is in the public domain (not copyrighted) and therefore you are free to use it without permission or charge by all professionals (researchers and practitioner) as long as you give credit to the authors of the scale: Ed Dierner, Robert A. Emmons, Randy J. Larsen, and Sharon Griffin as noted in the 1985 article in the *Journal of Personality Assessment.*

Correlation Table

Correlation		SWLS_score	HSCL_25_score	RS_score	HHI_score	SWBS_score
SWLS_score	Pearson Correlation	1	-.656**	.699**	.710**	.598**
	N	181	181	181	181	181
HSCL_25_score	Pearson Correlation	-.656**	1	-.728**	-.736**	-.675**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	181	184	184	184	184
RS_score	Pearson Correlation	.699**	-.728**	1	.819**	.745**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	181	184	184	184	184
HHI_score	Pearson Correlation	.710**	-.736**	.819**	1	.808**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	181	184	184	214	212
SWBS_score	Pearson Correlation	.598**	-.675**	.745**	.808**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	181	184	184	212	212
GSE_score	Pearson Correlation	.670**	-.658**	.869**	.757**	.632**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	211	211
JCS_score	Pearson Correlation	.595**	-.393**	.541**	.415**	.427**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	180	183	183	196	196
SSB_score	Pearson Correlation	.626**	-.654**	.719**	.687**	.672**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	188	188
EOR_score	Pearson Correlation	.644**	-.695**	.778**	.701**	.708**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	186	186
SchoolYear	Pearson Correlation	.420**	-.468**	.524**	.396**	.319**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	214	212
psych_code	Pearson Correlation	-.250**	.185*	-.193**	-.277**	-.142*
	Sig. (2-tailed)	.001	.012	.009	.000	.039
	N	181	184	184	214	212

Correlation		SWLS_score	HSCL_25_score	RS_score	HHI_score	SWBS_score
illness_code	Pearson Correlation	-.265**	.391**	-.414**	-.352**	-.324**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	214	212
mom_psychiatric_increased_risk	Pearson Correlation	-.278**	.243**	-.264**	-.192**	-.227**
	Sig. (2-tailed)	.000	.001	.000	.005	.001
	N	181	184	184	214	212
dad_psychiatric_increased_risk	Pearson Correlation	-.326**	.310**	-.359**	-.412**	-.365**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	214	212
parents_positive_score	Pearson Correlation	.235**	-.226**	.198**	.195**	.182**
	Sig. (2-tailed)	.001	.002	.007	.004	.008
	N	181	184	184	214	212
parents_negative_score	Pearson Correlation	-.236**	.123	-.125	-.097	-.063
	Sig. (2-tailed)	.001	.095	.092	.156	.361
	N	181	184	184	214	212
parents_and_me_positive	Pearson Correlation	.297**	-.259**	.237**	.268**	.254**
	Sig. (2-tailed)	.000	.000	.001	.000	.000
	N	181	184	184	214	212
parents_and_me_negative	Pearson Correlation	-.269**	.104	-.130	-.083	-.024
	Sig. (2-tailed)	.000	.160	.078	.228	.724
	N	181	184	184	214	212
EmployedYesNo	Pearson Correlation	.096	-.016	.132	.039	.061
	Sig. (2-tailed)	.206	.835	.077	.578	.384
	N	176	179	179	208	206
Income	Pearson Correlation	.474**	-.491**	.486**	.475**	.491**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	213	211
OwnHomeYesNo	Pearson Correlation	.478**	-.525**	.554**	.502**	.576**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	175	178	178	208	206
ChildrenNumber	Pearson Correlation	.287**	-.432**	.398**	.403**	.458**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	180	183	183	213	211

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Correlation		SWLS _score	HSCL_25_ score	RS_score	HHI_score	SWBS_ score
AbortionNumber	Pearson Correlation	-.425**	.358**	-.377**	-.284**	-.249**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	214	212
increased_protective	Pearson Correlation	.717**	-.692**	.836**	.749**	.725**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	181	184	184	214	212
increased_risk	Pearson Correlation	-.527**	.435**	-.461**	-.409**	-.354**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	175	178	178	208	206

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Correlation		GSE_score	JCS_score	SSB_score	EOR_score	SchoolYear
SWLS_score	Pearson Correlation	.670**	.595**	.626**	.644**	.420**
	N	181	180	181	181	181
HSCL_25_score	Pearson Correlation	-.658**	-.393**	-.654**	-.695**	-.468**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	184	183	184	184	184
RS_score	Pearson Correlation	.869**	.541**	.719**	.778**	.524**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	184	183	184	184	184
HHI_score	Pearson Correlation	.757**	.415**	.687**	.701**	.396**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	211	196	188	186	214
SWBS_score	Pearson Correlation	.632**	.427**	.672**	.708**	.319**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	211	196	188	186	212
GSE_score	Pearson Correlation	1	.499**	.672**	.715**	.464**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	211	195	188	186	211
JCS_score	Pearson Correlation	.499**	1	.521**	.488**	.233**
	Sig. (2-tailed)	.000		.000	.000	.001
	N	195	196	187	185	196
SSB_score	Pearson Correlation	.672**	.521**	1	.795**	.473**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	188	187	188	186	188
EOR_score	Pearson Correlation	.715**	.488**	.795**	1	.489**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	186	185	186	186	186
SchoolYear	Pearson Correlation	.464**	.233**	.473**	.489**	1
	Sig. (2-tailed)	.000	.001	.000	.000	
	N	211	196	188	186	216
psych_code	Pearson Correlation	-.222**	-.168*	-.137	-.017	-.125
	Sig. (2-tailed)	.001	.019	.060	.814	.066
	N	211	196	188	186	216

Correlation		GSE_score	JCS_score	SSB_score	EOR_score	SchoolYear
illness_code	Pearson Correlation	-.363**	-.233**	-.373**	-.416**	-.234**
	Sig. (2-tailed)	.000	.001	.000	.000	.001
	N	211	196	188	186	216
mom_psychiatric_increased_risk	Pearson Correlation	-.190**	-.327**	-.298**	-.221**	-.123
	Sig. (2-tailed)	.006	.000	.000	.002	.070
	N	211	196	188	186	216
dad_psychiatric_increased_risk	Pearson Correlation	-.402**	-.215**	-.411**	-.368**	-.347**
	Sig. (2-tailed)	.000	.003	.000	.000	.000
	N	211	196	188	186	216
parents_positive_score	Pearson Correlation	.187**	.104	.272**	.216**	.091
	Sig. (2-tailed)	.007	.147	.000	.003	.181
	N	211	196	188	186	216
parents_negative_score	Pearson Correlation	-.085	-.160*	-.107	-.096	-.101
	Sig. (2-tailed)	.220	.025	.146	.193	.140
	N	211	196	188	186	216
parents_and_me_positive	Pearson Correlation	.226**	.225**	.313**	.254**	.298**
	Sig. (2-tailed)	.001	.002	.000	.000	.000
	N	211	196	188	186	216
parents_and_me_negative	Pearson Correlation	-.084	-.148*	-.087	-.083	-.076
	Sig. (2-tailed)	.226	.039	.233	.262	.264
	N	211	196	188	186	216
EmployedYesNo	Pearson Correlation	.116	.124	.144	.179*	.187**
	Sig. (2-tailed)	.098	.087	.051	.016	.007
	N	205	190	183	181	210
Income	Pearson Correlation	.465**	.264**	.523**	.630**	.484**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	210	195	188	186	215
OwnHomeYesNo	Pearson Correlation	.471**	.260**	.477**	.651**	.334**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	205	190	182	180	210
ChildrenNumber	Pearson Correlation	.357**	.186**	.350**	.493**	.232**
	Sig. (2-tailed)	.000	.009	.000	.000	.001
	N	210	195	187	185	215

Correlation		GSE_score	JCS_score	SSB_score	EOR_score	SchoolYear
AbortionNumber	Pearson Correlation	-.356**	-.338**	-.357**	-.280**	-.171*
	Sig. (2-tailed)	.000	.000	.000	.000	.012
	N	211	196	188	186	216
increased_protective	Pearson Correlation	.791**	.661**	.813**	.841**	.395**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	211	196	188	186	216
increased_risk	Pearson Correlation	-.401**	-.369**	-.419**	-.411**	-.399**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	205	190	182	180	210

Correlation		psych_code	illness_code	mom_psychiatric_increased_risk	dad_psychiatric_increased_risk	parents_positive_score
SWLS_score	Pearson Correlation	-.250**	-.265**	-.278**	-.326**	.235**
	N	181	181	181	181	181
HSCL_25_score	Pearson Correlation	.185*	.391**	.243**	.310**	-.226**
	Sig. (2-tailed)	.012	.000	.001	.000	.002
	N	184	184	184	184	184
RS_score	Pearson Correlation	-.193**	-.414**	-.264**	-.359**	.198**
	Sig. (2-tailed)	.009	.000	.000	.000	.007
	N	184	184	184	184	184
HHI_score	Pearson Correlation	-.277**	-.352**	-.192**	-.412**	.195**
	Sig. (2-tailed)	.000	.000	.005	.000	.004
	N	214	214	214	214	214
SWBS_score	Pearson Correlation	-.142*	-.324**	-.227**	-.365**	.182**
	Sig. (2-tailed)	.039	.000	.001	.000	.008
	N	212	212	212	212	212
GSE_score	Pearson Correlation	-.222**	-.363**	-.190**	-.402**	.187**
	Sig. (2-tailed)	.001	.000	.006	.000	.007
	N	211	211	211	211	211
JCS_score	Pearson Correlation	-.168*	-.233**	-.327**	-.215**	.104
	Sig. (2-tailed)	.019	.001	.000	.003	.147
	N	196	196	196	196	196
SSB_score	Pearson Correlation	-.137	-.373**	-.298**	-.411**	.272**
	Sig. (2-tailed)	.060	.000	.000	.000	.000
	N	188	188	188	188	188
EOR_score	Pearson Correlation	-.017	-.416**	-.221**	-.368**	.216**
	Sig. (2-tailed)	.814	.000	.002	.000	.003
	N	186	186	186	186	186
SchoolYear	Pearson Correlation	-.125	-.234**	-.123	-.347**	.091
	Sig. (2-tailed)	.066	.001	.070	.000	.181
	N	216	216	216	216	216
psych_code	Pearson Correlation	1	.102	.256**	.183**	-.175*
	Sig. (2-tailed)		.137	.000	.007	.010
	N	216	216	216	216	216

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Correlation		psych_ code	illness_ code	mom_psychia tric_increased _risk	dad_psychia tric_increased _risk	parents_ positive_ score
illness_code	Pearson Correlation	.102	1	.084	.283**	-.067
	Sig. (2-tailed)	.137		.217	.000	.329
	N	216	216	216	216	216
mom_psychiatric _increased_risk	Pearson Correlation	.256**	.084	1	.276**	-.160*
	Sig. (2-tailed)	.000	.217		.000	.019
	N	216	216	216	216	216
dad_psychiatric_ increased_risk	Pearson Correlation	.183**	.283**	.276**	1	-.145*
	Sig. (2-tailed)	.007	.000	.000		.034
	N	216	216	216	216	216
parents_positive_ score	Pearson Correlation	-.175*	-.067	-.160*	-.145*	1
	Sig. (2-tailed)	.010	.329	.019	.034	
	N	216	216	216	216	216
parents_negative _score	Pearson Correlation	.134*	.148*	.170*	.116	-.599**
	Sig. (2-tailed)	.050	.029	.012	.088	.000
	N	216	216	216	216	216
parents_and_me_ positive	Pearson Correlation	-.096	-.080	-.142*	-.180**	.707**
	Sig. (2-tailed)	.158	.241	.037	.008	.000
	N	216	216	216	216	216
parents_and_me_ negative	Pearson Correlation	.092	.185**	.122	.076	-.445**
	Sig. (2-tailed)	.177	.006	.073	.266	.000
	N	216	216	216	216	216
EmployedYesNo	Pearson Correlation	-.058	-.044	-.051	-.070	.095
	Sig. (2-tailed)	.400	.530	.459	.314	.172
	N	210	210	210	210	210
Income	Pearson Correlation	-.009	-.283**	.005	-.309**	.111
	Sig. (2-tailed)	.893	.000	.942	.000	.105
	N	215	215	215	215	215
OwnHomeYes No	Pearson Correlation	-.005	-.282**	-.038	-.279**	.071
	Sig. (2-tailed)	.940	.000	.584	.000	.305
	N	210	210	210	210	210
ChildrenNumber	Pearson Correlation	.019	-.339**	-.113	-.230**	.044
	Sig. (2-tailed)	.781	.000	.098	.001	.518
	N	215	215	215	215	215

Correlation		psych_code	illness_code	mom_psychiatric_increased_risk	dad_psychiatric_increased_risk	parents_positive_score
AbortionNumber	Pearson Correlation	.102	.185**	.208**	.217**	-.042
	Sig. (2-tailed)	.135	.006	.002	.001	.543
	N	216	216	216	216	216
increased_protective	Pearson Correlation	-.223**	-.316**	-.298**	-.323**	.180**
	Sig. (2-tailed)	.001	.000	.000	.000	.008
	N	216	216	216	216	216
increased_risk	Pearson Correlation	.391**	.411**	.430**	.464**	-.484**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	210	210	210	210	210

Correlation		parents_negative_score	parents_and_me_positive	parents_and_me_negative	Employed YesNo	Income
SWLS_score	Pearson Correlation	-.236**	.297**	-.269**	.096	.474**
	N	181	181	181	176	181
HSCL_25_score	Pearson Correlation	.123	-.259**	.104	-.016	-.491**
	Sig. (2-tailed)	.095	.000	.160	.835	.000
	N	184	184	184	179	184
RS_score	Pearson Correlation	-.125	.237**	-.130	.132	.486**
	Sig. (2-tailed)	.092	.001	.078	.077	.000
	N	184	184	184	179	184
HHI_score	Pearson Correlation	-.097	.268**	-.083	.039	.475**
	Sig. (2-tailed)	.156	.000	.228	.578	.000
	N	214	214	214	208	213
SWBS_score	Pearson Correlation	-.063	.254**	-.024	.061	.491**
	Sig. (2-tailed)	.361	.000	.724	.384	.000
	N	212	212	212	206	211
GSE_score	Pearson Correlation	-.085	.226**	-.084	.116	.465**
	Sig. (2-tailed)	.220	.001	.226	.098	.000
	N	211	211	211	205	210
JCS_score	Pearson Correlation	-.160*	.225**	-.148*	.124	.264**
	Sig. (2-tailed)	.025	.002	.039	.087	.000
	N	196	196	196	190	195
SSB_score	Pearson Correlation	-.107	.313**	-.087	.144	.523**
	Sig. (2-tailed)	.146	.000	.233	.051	.000
	N	188	188	188	183	188
EOR_score	Pearson Correlation	-.096	.254**	-.083	.179*	.630**
	Sig. (2-tailed)	.193	.000	.262	.016	.000
	N	186	186	186	181	186
SchoolYear	Pearson Correlation	-.101	.298**	-.076	.187**	.484**
	Sig. (2-tailed)	.140	.000	.264	.007	.000
	N	216	216	216	210	215
psych_code	Pearson Correlation	.134*	-.096	.092	-.058	-.009
	Sig. (2-tailed)	.050	.158	.177	.400	.893
	N	216	216	216	210	215

Correlation		parents_negative_score	parents_and_me_positive	parents_and_me_negative	Employed YesNo	Income
illness_code	Pearson Correlation	.148*	-.080	.185**	-.044	-.283**
	Sig. (2-tailed)	.029	.241	.006	.530	.000
	N	216	216	216	210	215
mom_psychiatric_increased_risk	Pearson Correlation	.170*	-.142*	.122	-.051	.005
	Sig. (2-tailed)	.012	.037	.073	.459	.942
	N	216	216	216	210	215
dad_psychiatric_increased_risk	Pearson Correlation	.116	-.180**	.076	-.070	-.309**
	Sig. (2-tailed)	.088	.008	.266	.314	.000
	N	216	216	216	210	215
parents_positive_score	Pearson Correlation	-.599**	.707**	-.445**	.095	.111
	Sig. (2-tailed)	.000	.000	.000	.172	.105
	N	216	216	216	210	215
parents_negative_score	Pearson Correlation	1	-.520**	.825**	-.160*	.029
	Sig. (2-tailed)		.000	.000	.020	.670
	N	216	216	216	210	215
parents_and_me_positive	Pearson Correlation	-.520**	1	-.538**	.057	.185**
	Sig. (2-tailed)	.000		.000	.412	.007
	N	216	216	216	210	215
parents_and_me_negative	Pearson Correlation	.825**	-.538**	1	-.151*	.034
	Sig. (2-tailed)	.000	.000		.029	.617
	N	216	216	216	210	215
EmployedYesNo	Pearson Correlation	-.160*	.057	-.151*	1	.216**
	Sig. (2-tailed)	.020	.412	.029		.002
	N	210	210	210	210	209
Income	Pearson Correlation	.029	.185**	.034	.216**	1
	Sig. (2-tailed)	.670	.007	.617	.002	
	N	215	215	215	209	215
OwnHomeYesNo	Pearson Correlation	.031	.167*	.022	.089	.600**
	Sig. (2-tailed)	.659	.015	.751	.204	.000
	N	210	210	210	205	209
ChildrenNumber	Pearson Correlation	.039	.054	.044	.042	.406**
	Sig. (2-tailed)	.570	.435	.519	.546	.000
	N	215	215	215	209	214

Correlation		parents_negative _score	parents_and_me_ positive	parents_and_ me_negative	Employed YesNo	Income
AbortionNumber	Pearson Correlation	.037	-.078	.032	-.076	-.151*
	Sig. (2-tailed)	.593	.255	.639	.274	.026
	N	216	216	216	210	215
increased_protective	Pearson Correlation	-.103	.209**	-.083	.146*	.424**
	Sig. (2-tailed)	.133	.002	.226	.035	.000
	N	216	216	216	210	215
increased_risk	Pearson Correlation	.767**	-.524**	.750**	-.360**	-.239**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	210	210	210	205	209

Correlation		Own Home YesNo	Children Number	Abortion Number	increased_protective	increased_risk
SWLS_score	Pearson Correlation	.478**	.287**	-.425**	.717**	-.527**
	N	175	180	181	181	175
HSCL_25_score	Pearson Correlation	-.525**	-.432**	.358**	-.692**	.435**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	178	183	184	184	178
RS_score	Pearson Correlation	.554**	.398**	-.377**	.836**	-.461**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	178	183	184	184	178
HHI_score	Pearson Correlation	.502**	.403**	-.284**	.749**	-.409**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	208	213	214	214	208
SWBS_score	Pearson Correlation	.576**	.458**	-.249**	.725**	-.354**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	206	211	212	212	206
GSE_score	Pearson Correlation	.471**	.357**	-.356**	.791**	-.401**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	205	210	211	211	205
JCS_score	Pearson Correlation	.260**	.186**	-.338**	.661**	-.369**
	Sig. (2-tailed)	.000	.009	.000	.000	.000
	N	190	195	196	196	190
SSB_score	Pearson Correlation	.477**	.350**	-.357**	.813**	-.419**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	182	187	188	188	182
EOR_score	Pearson Correlation	.651**	.493**	-.280**	.841**	-.411**
	Sig. (2-tailed)	.000	.000	.000	.000	.000
	N	180	185	186	186	180
SchoolYear	Pearson Correlation	.334**	.232**	-.171*	.395**	-.399**
	Sig. (2-tailed)	.000	.001	.012	.000	.000
	N	210	215	216	216	210
psych_code	Pearson Correlation	-.005	.019	.102	-.223**	.391**
	Sig. (2-tailed)	.940	.781	.135	.001	.000
	N	210	215	216	216	210

Correlation		Own Home YesNo	Children Number	Abortion Number	increased_ protective	increased_risk
illness_code	Pearson Correlation	-.282**	-.339**	.185**	-.316**	.411**
	Sig. (2-tailed)	.000	.000	.006	.000	.000
	N	210	215	216	216	210
mom_psychiatric _increased_risk	Pearson Correlation	-.038	-.113	.208**	-.298**	.430**
	Sig. (2-tailed)	.584	.098	.002	.000	.000
	N	210	215	216	216	210
dad_psychiatric_ increased_risk	Pearson Correlation	-.279**	-.230**	.217**	-.323**	.464**
	Sig. (2-tailed)	.000	.001	.001	.000	.000
	N	210	215	216	216	210
parents_positive_ score	Pearson Correlation	.071	.044	-.042	.180**	-.484**
	Sig. (2-tailed)	.305	.518	.543	.008	.000
	N	210	215	216	216	210
parents_negative _score	Pearson Correlation	.031	.039	.037	-.103	.767**
	Sig. (2-tailed)	.659	.570	.593	.133	.000
	N	210	215	216	216	210
parents_and_me_ positive	Pearson Correlation	.167*	.054	-.078	.209**	-.524**
	Sig. (2-tailed)	.015	.435	.255	.002	.000
	N	210	215	216	216	210
parents_and_me_ negative	Pearson Correlation	.022	.044	.032	-.083	.750**
	Sig. (2-tailed)	.751	.519	.639	.226	.000
	N	210	215	216	216	210
EmployedYesNo	Pearson Correlation	.089	.042	-.076	.146*	-.360**
	Sig. (2-tailed)	.204	.546	.274	.035	.000
	N	205	209	210	210	205
Income	Pearson Correlation	.600**	.406**	-.151*	.424**	-.239**
	Sig. (2-tailed)	.000	.000	.026	.000	.000
	N	209	214	215	215	209
OwnHomeYes No	Pearson Correlation	1	.548**	-.247**	.492**	-.319**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	210	209	210	210	210
ChildrenNumber	Pearson Correlation	.548**	1	-.112	.382**	-.197**
	Sig. (2-tailed)	.000		.101	.000	.004
	N	209	215	215	215	209

Correlation		Own Home YesNo	Children Number	Abortion Number	increased_ protective	increased_risk
AbortionNumber	Pearson Correlation	-.247**	-.112	1	-.385**	.236**
	Sig. (2-tailed)	.000	.101		.000	.001
	N	210	215	216	216	210
increased_protective	Pearson Correlation	.492**	.382**	-.385**	1	-.411**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	210	215	216	216	210
increased_risk	Pearson Correlation	-.319**	-.197**	.236**	-.411**	1
	Sig. (2-tailed)	.000	.004	.001	.000	
	N	210	209	210	210	210

Nonparametric Correlations			SWLS_ score	HSCL_25_ score	RS_ score	HHI_ score	SWBS_ score
Spearman's rho	SWLS_score	Correlation Coefficient	1.000	-.691**	.713**	.724**	.609**
		N	181	181	181	181	181
	HSCL_25_score	Correlation Coefficient	-.691**	1.000	-.776**	-.774**	-.692**
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	181	184	184	184	184
	RS_score	Correlation Coefficient	.713**	-.776**	1.000	.854**	.769**
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	181	184	184	184	184
	HHI_score	Correlation Coefficient	.724**	-.774**	.854**	1.000	.812**
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	181	184	184	214	212
	SWBS_score	Correlation Coefficient	.609**	-.692**	.769**	.812**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	181	184	184	212	212
	GSE_score	Correlation Coefficient	.668**	-.675**	.866**	.772**	.627**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	211	211
	JCS_score	Correlation Coefficient	.606**	-.472**	.598**	.527**	.491**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	180	183	183	196	196
	SSB_score	Correlation Coefficient	.664**	-.709**	.763**	.746**	.728**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	188	188
	EOR_score	Correlation Coefficient	.642**	-.718**	.819**	.743**	.738**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	186	186

Nonparametric Correlations			SWLS_ score	HSCL_25_ score	RS_ score	HHI_ score	SWBS_ score
Spearman's rho	SchoolYear	Correlation Coefficient	.461**	-.549**	.582**	.453**	.411**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	214	212
	psych_code	Correlation Coefficient	-.249**	.205**	-.197**	-.285**	-.168*
		Sig. (2-tailed)	.001	.005	.007	.000	.014
		N	181	184	184	214	212
	illness_code	Correlation Coefficient	-.264**	.412**	-.417**	-.365**	-.306**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	214	212
	mom_psychiatric _increased_risk	Correlation Coefficient	-.284**	.286**	-.281**	-.214**	-.270**
		Sig. (2-tailed)	.000	.000	.000	.002	.000
		N	181	184	184	214	212
	dad_psychiatric_ increased_risk	Correlation Coefficient	-.310**	.360**	-.367**	-.419**	-.382**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	214	212
	parents_positive_ score	Correlation Coefficient	.230**	-.206**	.197**	.202**	.174*
		Sig. (2-tailed)	.002	.005	.007	.003	.011
		N	181	184	184	214	212
	parents_negative_ score	Correlation Coefficient	-.255**	.137	-.143	-.121	-.087
		Sig. (2-tailed)	.001	.065	.053	.078	.206
		N	181	184	184	214	212
	parents_and_me_ positive	Correlation Coefficient	.297**	-.262**	.237**	.271**	.225**
		Sig. (2-tailed)	.000	.000	.001	.000	.001
		N	181	184	184	214	212
	parents_and_me_ negative	Correlation Coefficient	-.286**	.098	-.144	-.106	-.053
		Sig. (2-tailed)	.000	.185	.051	.123	.446
		N	181	184	184	214	212

Nonparametric Correlations			SWLS_ score	HSCL_25_ score	RS_ score	HHI_ score	SWBS_ score
Spearman's rho	EmployedYesNo	Correlation Coefficient	.099	-.012	.148*	.069	.084
		Sig. (2-tailed)	.193	.874	.048	.325	.231
		N	176	179	179	208	206
	Income	Correlation Coefficient	.450**	-.499**	.489**	.493**	.488**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	213	211
	OwnHomeYesNo	Correlation Coefficient	.469**	-.551**	.561**	.508**	.576**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	175	178	178	208	206
	ChildrenNumber	Correlation Coefficient	.315**	-.472**	.453**	.433**	.502**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	180	183	183	213	211
	AbortionNumber	Correlation Coefficient	-.499**	.439**	-.443**	-.371**	-.334**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	214	212
	increased_protective	Correlation Coefficient	.705**	-.743**	.845**	.784**	.757**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	181	184	184	214	212
	increased_risk	Correlation Coefficient	-.550**	.475**	-.492**	-.439**	-.384**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	175	178	178	208	206

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

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Nonparametric Correlations			GSE_ score	JCS_ score	SSB_ score	EOR_ score	School Year
Spearman's rho	SWLS_score	Correlation Coefficient	.668[**]	.606[**]	.664[**]	.642[**]	.461[**]
		N	181	180	181	181	181
	HSCL_25_score	Correlation Coefficient	-.675[**]	-.472[**]	-.709[**]	-.718[**]	-.549[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	184	183	184	184	184
	RS_score	Correlation Coefficient	.866[**]	.598[**]	.763[**]	.819[**]	.582[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	184	183	184	184	184
	HHI_score	Correlation Coefficient	.772[**]	.527[**]	.746[**]	.743[**]	.453[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	211	196	188	186	214
	SWBS_score	Correlation Coefficient	.627[**]	.491[**]	.728[**]	.738[**]	.411[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	211	196	188	186	212
	GSE_score	Correlation Coefficient	1.000	.552[**]	.699[**]	.749[**]	.482[**]
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	211	195	188	186	211
	JCS_score	Correlation Coefficient	.552[**]	1.000	.567[**]	.536[**]	.332[**]
		Sig. (2-tailed)	.000	.	.000	.000	.000
		N	195	196	187	185	196
	SSB_score	Correlation Coefficient	.699[**]	.567[**]	1.000	.834[**]	.545[**]
		Sig. (2-tailed)	.000	.000	.	.000	.000
		N	188	187	188	186	188
	EOR_score	Correlation Coefficient	.749[**]	.536[**]	.834[**]	1.000	.533[**]
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	186	185	186	186	186

Nonparametric Correlations			GSE_ score	JCS_ score	SSB_ score	EOR_ score	School Year
Spearman's rho	SchoolYear	Correlation Coefficient	.482**	.332**	.545**	.533**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.
		N	211	196	188	186	216
	psych_code	Correlation Coefficient	-.222**	-.187**	-.154*	-.002	-.127
		Sig. (2-tailed)	.001	.009	.035	.981	.062
		N	211	196	188	186	216
	illness_code	Correlation Coefficient	-.367**	-.223**	-.353**	-.409**	-.243**
		Sig. (2-tailed)	.000	.002	.000	.000	.000
		N	211	196	188	186	216
	mom_psychiatric _increased_risk	Correlation Coefficient	-.170*	-.352**	-.358**	-.263**	-.203**
		Sig. (2-tailed)	.013	.000	.000	.000	.003
		N	211	196	188	186	216
	dad_psychiatric_ increased_risk	Correlation Coefficient	-.394**	-.240**	-.455**	-.385**	-.385**
		Sig. (2-tailed)	.000	.001	.000	.000	.000
		N	211	196	188	186	216
	parents_positive_ score	Correlation Coefficient	.167*	.122	.267**	.206**	.120
		Sig. (2-tailed)	.015	.089	.000	.005	.079
		N	211	196	188	186	216
	parents_negative_ score	Correlation Coefficient	-.089	-.179*	-.137	-.105	-.138*
		Sig. (2-tailed)	.198	.012	.061	.156	.043
		N	211	196	188	186	216
	parents_and_me_ positive	Correlation Coefficient	.202**	.226**	.314**	.251**	.299**
		Sig. (2-tailed)	.003	.001	.000	.001	.000
		N	211	196	188	186	216
	parents_and_me_ negative	Correlation Coefficient	-.111	-.157*	-.108	-.083	-.130
		Sig. (2-tailed)	.108	.028	.140	.259	.056
		N	211	196	188	186	216

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Nonparametric Correlations			GSE score	JCS score	SSB score	EOR score	School Year
Spearman's rho	EmployedYesNo	Correlation Coefficient	.124	.140	.136	.189[*]	.174[*]
		Sig. (2-tailed)	.077	.054	.066	.011	.012
		N	205	190	183	181	210
	Income	Correlation Coefficient	.450[**]	.308[**]	.504[**]	.605[**]	.452[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	210	195	188	186	215
	OwnHomeYesNo	Correlation Coefficient	.450[**]	.275[**]	.510[**]	.629[**]	.379[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	205	190	182	180	210
	ChildrenNumber	Correlation Coefficient	.386[**]	.247[**]	.412[**]	.564[**]	.283[**]
		Sig. (2-tailed)	.000	.001	.000	.000	.000
		N	210	195	187	185	215
	AbortionNumber	Correlation Coefficient	-.372[**]	-.377[**]	-.452[**]	-.374[**]	-.246[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	211	196	188	186	216
	increased_protective	Correlation Coefficient	.756[**]	.708[**]	.853[**]	.850[**]	.447[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	211	196	188	186	216
	increased_risk	Correlation Coefficient	-.411[**]	-.408[**]	-.470[**]	-.425[**]	-.482[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	205	190	182	180	210

Nonparametric Correlations			psych _code	illness _code	mom_psy chiatric_ increased _risk	dad_psy chiatric_ increased _risk	parents_ positive_ score
Spearman's rho	SWLS_score	Correlation Coefficient	-.249**	-.264**	-.284**	-.310**	.230**
		N	181	181	181	181	181
	HSCL_25_ score	Correlation Coefficient	.205**	.412**	.286**	.360**	-.206**
		Sig. (2-tailed)	.005	.000	.000	.000	.005
		N	184	184	184	184	184
	RS_score	Correlation Coefficient	-.197**	-.417**	-.281**	-.367**	.197**
		Sig. (2-tailed)	.007	.000	.000	.000	.007
		N	184	184	184	184	184
	HHI_score	Correlation Coefficient	-.285**	-.365**	-.214**	-.419**	.202**
		Sig. (2-tailed)	.000	.000	.002	.000	.003
		N	214	214	214	214	214
	SWBS_score	Correlation Coefficient	-.168*	-.306**	-.270**	-.382**	.174*
		Sig. (2-tailed)	.014	.000	.000	.000	.011
		N	212	212	212	212	212
	GSE_score	Correlation Coefficient	-.222**	-.367**	-.170*	-.394**	.167*
		Sig. (2-tailed)	.001	.000	.013	.000	.015
		N	211	211	211	211	211
	JCS_score	Correlation Coefficient	-.187**	-.223**	-.352**	-.240**	.122
		Sig. (2-tailed)	.009	.002	.000	.001	.089
		N	196	196	196	196	196
	SSB_score	Correlation Coefficient	-.154*	-.353**	-.358**	-.455**	.267**
		Sig. (2-tailed)	.035	.000	.000	.000	.000
		N	188	188	188	188	188
	EOR_score	Correlation Coefficient	-.002	-.409**	-.263**	-.385**	.206**
		Sig. (2-tailed)	.981	.000	.000	.000	.005
		N	186	186	186	186	186

Nonparametric Correlations			psych_code	illness_code	mom_psychiatric_increased_risk	dad_psychiatric_increased_risk	parents_positive_score
Spearman's rho	SchoolYear	Correlation Coefficient	-.127	-.243**	-.203**	-.385**	.120
		Sig. (2-tailed)	.062	.000	.003	.000	.079
		N	216	216	216	216	216
	psych_code	Correlation Coefficient	1.000	.102	.256**	.183**	-.161*
		Sig. (2-tailed)	.	.137	.000	.007	.018
		N	216	216	216	216	216
	illness_code	Correlation Coefficient	.102	1.000	.084	.283**	-.072
		Sig. (2-tailed)	.137	.	.217	.000	.295
		N	216	216	216	216	216
	mom_psychiatric_increased_risk	Correlation Coefficient	.256**	.084	1.000	.276**	-.168*
		Sig. (2-tailed)	.000	.217	.	.000	.014
		N	216	216	216	216	216
	dad_psychiatric_increased_risk	Correlation Coefficient	.183**	.283**	.276**	1.000	-.152*
		Sig. (2-tailed)	.007	.000	.000	.	.025
		N	216	216	216	216	216
	parents_positive_score	Correlation Coefficient	-.161*	-.072	-.168*	-.152*	1.000
		Sig. (2-tailed)	.018	.295	.014	.025	.
		N	216	216	216	216	216
	parents_negative_score	Correlation Coefficient	.136*	.124	.186**	.120	-.748**
		Sig. (2-tailed)	.047	.068	.006	.079	.000
		N	216	216	216	216	216
	parents_and_me_positive	Correlation Coefficient	-.092	-.101	-.154*	-.181**	.703**
		Sig. (2-tailed)	.178	.138	.024	.008	.000
		N	216	216	216	216	216
	parents_and_me_negative	Correlation Coefficient	.106	.157*	.137*	.075	-.569**
		Sig. (2-tailed)	.121	.021	.045	.272	.000
		N	216	216	216	216	216

Nonparametric Correlations			psych _code	illness _code	mom_psy chiatric_ increased_ risk	dad_psy chiatric_ increased _risk	parents_ positive_ score
Spearman's rho	Employed YesNo	Correlation Coefficient	-.058	-.044	-.051	-.070	.108
		Sig. (2-tailed)	.400	.530	.459	.314	.118
		N	210	210	210	210	210
	Income	Correlation Coefficient	-.029	-.258**	-.026	-.280**	.105
		Sig. (2-tailed)	.675	.000	.705	.000	.125
		N	215	215	215	215	215
	OwnHome YesNo	Correlation Coefficient	-.005	-.282**	-.038	-.279**	.064
		Sig. (2-tailed)	.940	.000	.584	.000	.357
		N	210	210	210	210	210
	Children Number	Correlation Coefficient	.047	-.304**	-.112	-.273**	.016
		Sig. (2-tailed)	.495	.000	.102	.000	.814
		N	215	215	215	215	215
	Abortion Number	Correlation Coefficient	.102	.200**	.248**	.262**	-.070
		Sig. (2-tailed)	.134	.003	.000	.000	.303
		N	216	216	216	216	216
	increased_ protective	Correlation Coefficient	-.214**	-.312**	-.304**	-.312**	.178**
		Sig. (2-tailed)	.002	.000	.000	.000	.009
		N	216	216	216	216	216
	increased_risk	Correlation Coefficient	.395**	.422**	.445**	.488**	-.540**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	210	210	210	210	210

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Nonparametric Correlations			parents_ negative _score	parents_ and_me_ positive	parents_ and_me_ negative	Employed YesNo	Income
Spearman's rho	SWLS_score	Correlation Coefficient	-.255**	.297**	-.286**	.099	.450**
		N	181	181	181	176	181
	HSCL_25_ score	Correlation Coefficient	.137	-.262**	.098	-.012	-.499**
		Sig. (2-tailed)	.065	.000	.185	.874	.000
		N	184	184	184	179	184
	RS_score	Correlation Coefficient	-.143	.237**	-.144	.148*	.489**
		Sig. (2-tailed)	.053	.001	.051	.048	.000
		N	184	184	184	179	184
	HHI_score	Correlation Coefficient	-.121	.271**	-.106	.069	.493**
		Sig. (2-tailed)	.078	.000	.123	.325	.000
		N	214	214	214	208	213
	SWBS_score	Correlation Coefficient	-.087	.225**	-.053	.084	.488**
		Sig. (2-tailed)	.206	.001	.446	.231	.000
		N	212	212	212	206	211
	GSE_score	Correlation Coefficient	-.089	.202**	-.111	.124	.450**
		Sig. (2-tailed)	.198	.003	.108	.077	.000
		N	211	211	211	205	210
	JCS_score	Correlation Coefficient	-.179*	.226**	-.157*	.140	.308**
		Sig. (2-tailed)	.012	.001	.028	.054	.000
		N	196	196	196	190	195
	SSB_score	Correlation Coefficient	-.137	.314**	-.108	.136	.504**
		Sig. (2-tailed)	.061	.000	.140	.066	.000
		N	188	188	188	183	188
	EOR_score	Correlation Coefficient	-.105	.251**	-.083	.189*	.605**
		Sig. (2-tailed)	.156	.001	.259	.011	.000
		N	186	186	186	181	186

Nonparametric Correlations			parents_negative_score	parents_and_me_positive	parents_and_me_negative	Employed YesNo	Income
Spearman's rho	SchoolYear	Correlation Coefficient	-.138[*]	.299[**]	-.130	.174[*]	.452[**]
		Sig. (2-tailed)	.043	.000	.056	.012	.000
		N	216	216	216	210	215
	psych_code	Correlation Coefficient	.136[*]	-.092	.106	-.058	-.029
		Sig. (2-tailed)	.047	.178	.121	.400	.675
		N	216	216	216	210	215
	illness_code	Correlation Coefficient	.124	-.101	.157[*]	-.044	-.258[**]
		Sig. (2-tailed)	.068	.138	.021	.530	.000
		N	216	216	216	210	215
	mom_psychiatric_increased_risk	Correlation Coefficient	.186[**]	-.154[*]	.137[*]	-.051	-.026
		Sig. (2-tailed)	.006	.024	.045	.459	.705
		N	216	216	216	210	215
	dad_psychiatric_increased_risk	Correlation Coefficient	.120	-.181[**]	.075	-.070	-.280[**]
		Sig. (2-tailed)	.079	.008	.272	.314	.000
		N	216	216	216	210	215
	parents_positive_score	Correlation Coefficient	-.748[**]	.703[**]	-.569[**]	.108	.105
		Sig. (2-tailed)	.000	.000	.000	.118	.125
		N	216	216	216	210	215
	parents_negative_score	Correlation Coefficient	1.000	-.610[**]	.795[**]	-.141[*]	.013
		Sig. (2-tailed)	.	.000	.000	.041	.853
		N	216	216	216	210	215
	parents_and_me_positive	Correlation Coefficient	-.610[**]	1.000	-.676[**]	.058	.169[*]
		Sig. (2-tailed)	.000	.	.000	.406	.013
		N	216	216	216	210	215
	parents_and_me_negative	Correlation Coefficient	.795[**]	-.676[**]	1.000	-.134	.045
		Sig. (2-tailed)	.000	.000	.	.053	.515
		N	216	216	216	210	215

Nonparametric Correlations			parents_ negative _score	parents_ and_me_ positive	parents_ and_me_ negative	Employed YesNo	Income
Spearman's rho	Employed YesNo	Correlation Coefficient	-.141*	.058	-.134	1.000	.240**
		Sig. (2-tailed)	.041	.406	.053	.	.000
		N	210	210	210	210	209
	Income	Correlation Coefficient	.013	.169*	.045	.240**	1.000
		Sig. (2-tailed)	.853	.013	.515	.000	.
		N	215	215	215	209	215
	OwnHome YesNo	Correlation Coefficient	.033	.154*	.029	.089	.615**
		Sig. (2-tailed)	.636	.026	.674	.204	.000
		N	210	210	210	205	209
	Children Number	Correlation Coefficient	.060	.071	.069	.018	.507**
		Sig. (2-tailed)	.380	.301	.311	.797	.000
		N	215	215	215	209	214
	Abortion Number	Correlation Coefficient	.075	-.137*	.092	-.075	-.196**
		Sig. (2-tailed)	.270	.045	.179	.277	.004
		N	216	216	216	210	215
	increased_ protective	Correlation Coefficient	-.122	.212**	-.094	.146*	.448**
		Sig. (2-tailed)	.074	.002	.169	.035	.000
		N	216	216	216	210	215
	increased_ risk	Correlation Coefficient	.726**	-.565**	.709**	-.350**	-.265**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	210	210	210	205	209

Nonparametric Correlations			Own Home YesNo	Children Number	Abortion Number	increased_protective	increased_risk
Spearman's rho	SWLS_score	Correlation Coefficient	.469**	.315**	-.499**	.705**	-.550**
		N	175	180	181	181	175
	HSCL_25_score	Correlation Coefficient	-.551**	-.472**	.439**	-.743**	.475**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	178	183	184	184	178
	RS_score	Correlation Coefficient	.561**	.453**	-.443**	.845**	-.492**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	178	183	184	184	178
	HHI_score	Correlation Coefficient	.508**	.433**	-.371**	.784**	-.439**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	208	213	214	214	208
	SWBS_score	Correlation Coefficient	.576**	.502**	-.334**	.757**	-.384**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	206	211	212	212	206
	GSE_score	Correlation Coefficient	.450**	.386**	-.372**	.756**	-.411**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	205	210	211	211	205
	JCS_score	Correlation Coefficient	.275**	.247**	-.377**	.708**	-.408**
		Sig. (2-tailed)	.000	.001	.000	.000	.000
		N	190	195	196	196	190
	SSB_score	Correlation Coefficient	.510**	.412**	-.452**	.853**	-.470**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	182	187	188	188	182
	EOR_score	Correlation Coefficient	.629**	.564**	-.374**	.850**	-.425**
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	180	185	186	186	180

Nonparametric Correlations			Own Home YesNo	Children Number	Abortion Number	increased_ protective	increased _risk
Spearman's rho	SchoolYear	Correlation Coefficient	.379[**]	.283[**]	-.246[**]	.447[**]	-.482[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	210	215	216	216	210
	psych_code	Correlation Coefficient	-.005	.047	.102	-.214[**]	.395[**]
		Sig. (2-tailed)	.940	.495	.134	.002	.000
		N	210	215	216	216	210
	illness_code	Correlation Coefficient	-.282[**]	-.304[**]	.200[**]	-.312[**]	.422[**]
		Sig. (2-tailed)	.000	.000	.003	.000	.000
		N	210	215	216	216	210
	mom_psy chiatric_ increased_ risk	Correlation Coefficient	-.038	-.112	.248[**]	-.304[**]	.445[**]
		Sig. (2-tailed)	.584	.102	.000	.000	.000
		N	210	215	216	216	210
	dad_psy chiatric_ increased_ risk	Correlation Coefficient	-.279[**]	-.273[**]	.262[**]	-.312[**]	.488[**]
		Sig. (2-tailed)	.000	.000	.000	.000	.000
		N	210	215	216	216	210
	parents_ positive_ score	Correlation Coefficient	.064	.016	-.070	.178[**]	-.540[**]
		Sig. (2-tailed)	.357	.814	.303	.009	.000
		N	210	215	216	216	210
	parents_ negative_ score	Correlation Coefficient	.033	.060	.075	-.122	.726[**]
		Sig. (2-tailed)	.636	.380	.270	.074	.000
		N	210	215	216	216	210
	parents_and_ me_positive	Correlation Coefficient	.154[*]	.071	-.137[*]	.212[**]	-.565[**]
		Sig. (2-tailed)	.026	.301	.045	.002	.000
		N	210	215	216	216	210
	parents_and_ me_negative	Correlation Coefficient	.029	.069	.092	-.094	.709[**]
		Sig. (2-tailed)	.674	.311	.179	.169	.000
		N	210	215	216	216	210

Nonparametric Correlations			Own Home YesNo	Children Number	Abortion Number	increased_ protective	increased_ risk
Spearman's rho	Employed YesNo	Correlation Coefficient	.089	.018	-.075	.146[*]	-.350[**]
		Sig. (2-tailed)	.204	.797	.277	.035	.000
		N	205	209	210	210	205
	Income	Correlation Coefficient	.615[**]	.507[**]	-.196[**]	.448[**]	-.265[**]
		Sig. (2-tailed)	.000	.000	.004	.000	.000
		N	209	214	215	215	209
	OwnHome YesNo	Correlation Coefficient	1.000	.600[**]	-.262[**]	.485[**]	-.319[**]
		Sig. (2-tailed)	.	.000	.000	.000	.000
		N	210	209	210	210	210
	Children Number	Correlation Coefficient	.600[**]	1.000	-.127	.420[**]	-.187[**]
		Sig. (2-tailed)	.000	.	.064	.000	.007
		N	209	215	215	215	209
	Abortion Number	Correlation Coefficient	-.262[**]	-.127	1.000	-.407[**]	.300[**]
		Sig. (2-tailed)	.000	.064	.	.000	.000
		N	210	215	216	216	210
	increased_ protective	Correlation Coefficient	.485[**]	.420[**]	-.407[**]	1.000	-.414[**]
		Sig. (2-tailed)	.000	.000	.000	.	.000
		N	210	215	216	216	210
	increased_ risk	Correlation Coefficient	-.319[**]	-.187[**]	.300[**]	-.414[**]	1.000
		Sig. (2-tailed)	.000	.007	.000	.000	.
		N	210	209	210	210	210

APPENDIX M

Frequency Counts and Percentages of Number of Year Diagnosed with Medical Conditions after Induced Abortion of Participants (*N* = 216)

Year Diagnosed with Medical Condition after Induced Abortion	Frequencies	Percentage
-6	2	0.9%
-3	1	0.5%
-2	3	1.4%
-1	6	2.8%
0	52	24.1%
1	38	17.6%
2	6	2.8%
3	3	1.4%
4	2	0.9%
5	2	0.9%
6	1	0.5%
7	2	0.9%
8	1	0.5%
10	3	1.4%
11	3	1.4%
13	2	0.9%
15	2	0.9%
18	3	1.4%
19	3	1.4%
20	1	0.5%
21	3	1.4%
22	1	0.5%
23	3	1.4%
24	2	0.9%
25	1	0.5%
28	1	0.5%
29	1	0.5%
30	2	0.9%
31	3	1.4%
32	3	1.4%
33	1	0.5%
34	1	0.5%
36	1	0.5%
38	1	0.5%

Year Diagnosed with Medical Condition after Induced Abortion	Frequencies	Percentage
None	52	24.1%
Did Not Respond	4	1.9%
Total	216	100.0%

Frequency Counts and Percentages of Number of Year Diagnosed with Psychiatric Conditions after Induced Abortion of Participants (*N* = 216)

Year Diagnosed with Psychiatric Condition after Induced Abortion	Frequencies	Percentage
-11	1	0.5%
-9	1	0.5%
-3	1	0.5%
-2	1	0.5%
-1	1	0.5%
0	7	3.2%
1	8	3.7%
2	11	5.1%
3	19	8.8%
4	14	6.5%
5	5	2.3%
6	5	2.3%
7	1	0.5%
8	2	0.9%
9	4	1.9%
10	3	1.4%
11	3	1.4%
12	1	0.5%
13	3	1.4%
14	1	0.5%
15	3	1.4%
16	2	0.9%
17	1	0.5%
18	2	0.9%
19	2	0.9%
20	1	0.5%
23	2	0.9%
24	2	0.9%
28	2	0.9%
31	1	0.5%
None	100	46.3%
Did Not Respond	6	2.8%
Total	216	100.0%

APPENDIX O

Frequency Counts and Percentages for Ordinal and Nominal Demographic Variables of Study (N = 216)

Variable	Frequency	Percentage
Ethnicity		
Caucasian	126	58.3
Black or African American	37	17.1
Hispanic or Latina	23	10.6
Asian or Pacific Islander	17	7.9
American-Indian	10	4.6
Did Not Respond	1	0.5
Current marital status		
Married	80	37.0
Never married (single)	65	30.1
Living together	34	15.7
Divorced	25	11.6
Separated	8	3.7
Widowed	3	1.4
Did Not Respond	1	0.5
Highest education level attained		
Some high school	24	11.1
High school graduate	48	22.2
Technical/vocational	20	9.3
Some college	66	30.6
College graduate	34	15.7
Some graduate studies	6	2.8
Graduate degree	15	6.9
Did Not Respond	3	1.4
Currently Employed		
Yes	123	56.9
No	87	40.3
Did Not Respond	6	2.8
Total household income last year		
Under $5,000	17	7.9
$5,001 - $10,000	13	6.0
$10,001 - $20,000	25	11.6
$20,001 - $30,000	31	14.4
$30,001 - $40,000	31	14.4

Variable	Frequency	Percentage
Total household income last year (cont'd)		
$40,001 - $50,000	25	11.6
$50,001 - $60,000	16	7.4
$60,001 - $70,000	11	5.1
$70,001 - $80,000	8	3.7
$80,001 - $90,000	3	1.4
$90,001 - $100,000	7	3.2
Greater than $100,000	28	13.0
Did Not Respond	1	0.5
Currently affiliated with an organized place of worship		
Yes	158	73.1
No	57	26.4
Did Not Respond	1	0.5
Major denomination of place of worship		
Christian	155	71.8
Buddhist	4	1.9
Jewish	2	0.9
Mormon	2	0.9
Not affiliated	49	22.7
Did Not Respond	4	1.9
Frequency of attendance at religious services		
4 or more times per week	9	4.2
At least once per week	84	38.9
At least once per month	31	14.4
Only on observed denominational holiday	47	21.8
Never	41	19.0
Did Not Respond	4	1.9
Own the place where live		
Yes	83	38.4
No	127	58.8
Did Not Respond	6	2.8
Do you have children?		
Yes	114	52.8
No	100	46.3
Did Not Respond	2	0.9

Variable	Frequency	Percentage
How are the people in household related to you? (Select all that apply)		
Children	84	38.9
Spouse	80	37.0
Significant other	36	16.7
Sibling	17	7.9
Parent	22	10.2
Aunt/Uncle/Niece/Nephew	3	1.4
Friend	51	23.6
Did Not Respond	25	11.6

APPENDIX P

Operationalization of 28 Variables Included in Inferential Analysis

Variable Type/Name	Level	Dataset Code
Dependent Variables		
Satisfaction with Life Scale (SWLS)	Continuous	SWLS_score
Hopkins Symptom Check List - 25	Continuous	HSCL_25_score
Independent Variables – RS and Protective Factors		
Resilience = Resilience Scale (RS)	Continuous	RS_score
Hope = Herth Hope Index (HHI)	Continuous	HHI_score
Spirituality = Spiritual Well-Being Scale (SWBS)	Continuous	SWBS_score
Self-Efficacy = General Self-Efficacy Scale (GSE)	Continuous	GSE_score
Coping Skills = Jalowiec Coping Scale (JCS)	Continuous	JCS_score
Social Support = Social Support Behaviors (SSB)	Continuous	SSB_score
Effectiveness in obtaining resources = Effectiveness in Obtaining Resources Scale (EOR)	Continuous	EOR_score
Independent Variables – Risk Factors		
Number of years of education	Ordinal	SchoolYear
Mental health diagnosis	Dichotomous	psych_code
Physical health treatment	Dichotomous	illness_code
Mother mental health diagnosis	Dichotomous	mom_psychiatric
Father mental health diagnosis	Dichotomous	dad_psychiatric
Parents' positive score	Ordinal	parents_positive_score

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Variable Type/Name	Level	Dataset Code
Parents' negative score	Ordinal	parents_negative_score
Parents/participant positive score	Ordinal	parents_and_me_positive
Parents/participant negative score	Ordinal	parents_and_me_negative
Employment status	Dichotomous	EmployedYesNo
Income	Ordinal	Income
Homeownership	Dichotomous	OwnHomeYesNo
Race/Ethnicity = Black	Dichotomous	race_black
Race/Ethnicity = Hispanic	Dichotomous	race_hispanic
Race/Ethnicity = Other	Dichotomous	race_other
Number of children	Ordinal	ChildrenNumber
Number of abortions	Ordinal	AbortionNumber
Variables added for correlational analysis		
Protective factor score	Ordinal	increased_protective
Risk factor score	Ordinal	increased_risk

APPENDIX Q

Institutional Review Board (IRB) Approval

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

Biomedical IRB – Exempt Review
Deemed Exempt

DATE: August 12, 2011

TO: Dr. Michele Clark, School of Nursing

FROM: Office of Research Integrity – Human Subjects

RE: Notification of review by /Cindy Lee-Tataseo/Ms. Cindy Lee-Tataseo, BS, CIP, CIM
Protocol Title: Predictors of Resilience and Their Influence On Adaptation After
Elective Abortion
Protocol # 1106-3864

This memorandum is notification that the project referenced above has been reviewed as indicated in
Federal regulatory statutes 45CFR46 and deemed exempt under 45 CFR 46.101(b)2.

PLEASE NOTE:
Upon Approval, the research team is responsible for conducting the research as stated in the exempt
application reviewed by the ORI – HS and/or the IRB which shall include using the most recently
submitted Informed Consent/Assent Forms (Information Sheet) and recruitment materials. The official
versions of these forms are indicated by footer which contains the date exempted.

Any changes to the application may cause this project to require a different level of IRB review.
Should any changes need to be made, please submit a **Modification Form**. When the above-referenced
project has been completed, please submit a **Continuing Review/Progress Completion report** to
notify ORI – HS of its closure.

If you have questions or require any assistance, please contact the Office of Research Integrity -
Human Subjects at IRB@unlv.edu or call 895-2794.

Office of Research Integrity – Human Subjects
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047
(702) 895-2794 • FAX: (702) 895-0805

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1. Predictors of Resilience and their influence on adaptation after Elective Abortion

I am Anna Marie Antonio, a doctoral candidate at the University of Nevada Las Vegas. I would like to invite you to participate in my dissertation research. The purpose of my study is explained below.

TITLE OF STUDY: Predictors of Resilience and their influence on adaptation after Elective Abortion

INVESTIGATOR(S): Anna Marie Antonio and Michele Clark
CONTACT PHONE: 702-895-5978

Purpose of the Study: To determine the relationship between resilience and protective factors (hope, spirituality, self-efficacy, coping skills, social support and effectiveness in obtaining resources); the relationship between resilience and risk factors (educational status, mental and health status, socioeconomic status, parental history of mental disorder, family conflict, and presence of stressful event); and the relationship of resilience and protective factors with positive (adaptation) and negative outcomes (depression, anxiety). I would also like to determine if resilience, protective factors, and risk factors can be predictive of positive or negative outcomes

Participants: You are being asked to participate in the study if you meet the inclusion criteria below:
Female gender, at least 18 years of age, living in the US, with history of one or more induced abortions at any time, and willing to give your consent.

You would be excluded from this study, if you have had one or more spontaneous abortions or miscarriages and/or you do not meet any inclusion criteria listed above

Procedures: If you volunteer to participate in this study, you will be asked to complete a few demographic questions (i.e. your age, etc.) and then complete a series of questionnaires related to protective factors, risk factors, resilience, depression, anxiety, somatization symptoms, and adaption.

Benefits of Participation: There are no direct benefits to you as a participant in this study.

Risks of Participation: There are risks involved in all research studies, but this study may include only minimal risks in that you may feel uncomfortable or stressed in answering some of the questions. You can 'skip' any questions that you are not comfortable in answering.

Cost/Compensation: The study will take approximately 30-40 minutes of your time. There is no financial cost to you to participate in this study. You will not be compensated for your time, but every participant in this study will receive a $5.00 gift certificate from Amazon.com as a thank you.

Contact Information: If you have any questions or concerns about the study, you may contact Michele Clark michele.clark@unlv.edu or 702-895-5978 (PI and Faculty Dissertation Chair). For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

Voluntary Participation: Your participation in this study is voluntary. You may refuse to participate in this study at all or you have the ability to skip answers on the survey and/or submit the survey without requiring an answer on each item.

Confidentiality: All information will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time, the information gathered will be destroyed.

This study has been approved by our University's Institutional Review Board.

Participant Consent: If you have read the above information and you meet the inclusion criteria and you wish to participate in this study, please proceed by clicking the 'NEXT' icon at the bottom center of the screen.

Deemed exempt by the ORI-HS and/or the UNLV IRB. Protocol 1106-3864
Exempt Date: 08-12-11

UNLV
UNIVERSITY OF NEVADA LAS VEGAS

Biomedical IRB – Exempt Review
Modification Approved

NOTICE TO ALL RESEARCHERS:
Please be aware that a protocol violation (e.g., failure to submit a modification for any change) of an IRB approved protocol may result in mandatory remedial education, additional audits, re-consenting subjects, researcher probation, suspension of any research protocol at issue, suspension of additional existing research protocols, invalidation of all research conducted under the research protocol at issue, and further appropriate consequences as determined by the IRB and the Institutional Officer.

DATE: March 26, 2012

TO: Dr. Michelle Clark, Nursing

FROM: Office of Research Integrity – Human Subjects

RE: Notification of IRB Action
            Protocol Title: Predictors of Resilience and their influence on adaptation after elective abortion
            Protocol #: 1106-3864

The modification of the protocol named above has been reviewed and deemed exempt.

Modifications reviewed for this action include:
- Expansion of online survey to include a paper and pencil option for completion of questionnaires.
- Authorization from study sites to allow placement of questionnaires in facility.
- Use of a paper version of the Informed Consent.
- New procedures explaining how questionnaires can be completed and how they will be protected.

This IRB action does not change your exempt status.

Should there be *any* change to the protocol, it will be necessary to submit a Modification Form through ORI - Human Subjects. No changes may be made to the existing protocol until modifications have been reviewed and a determination has been made by the ORI-HS and/or the IRB. Modified versions of protocol materials must be used upon final determination. Unanticipated problems, deviations to protocols, and adverse events must be reported to the ORI – HS within 10 days of occurrence.

If you have questions or require any assistance, please contact the Office of Research Integrity – Human Subjects at IRB@unlv.edu or call 895-2794.

Office of Research Integrity - Human Subjects
4505 Maryland Parkway • Box 451047 • Las Vegas, Nevada 89154-1047
(702) 895-2794 • FAX: (702) 895-0805

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APPENDIX R

Description of the Study, Consent, and Survey

1. Predictors of Resilience and their influence on adaptation after Elective A...

I am Anna Marie Antonio, a doctoral candidate at the University of Nevada Las Vegas. I would like to invite you to participate in my dissertation research. The purpose of my study is explained below.

TITLE OF STUDY: Predictors of Resilience and their influence on adaptation after Elective Abortion

INVESTIGATOR(S): Anna Marie Antonio and Michele Clark
CONTACT PHONE: 702-895-5978 (Michelle Clark) and 925-331-0613 (Anna Marie Antonio)

Purpose of the Study: To determine the relationship between resilience and protective factors (hope, spirituality, self-efficacy, coping skills, social support and effectiveness in obtaining resources); the relationship between resilience and risk factors (educational status, mental and health status, socioeconomic status, parental history of mental disorder, family conflict, and presence of stressful event); and the relationship of resilience and protective factors with positive (adaptation) and negative outcomes (depression, anxiety). I would also like to determine if resilience, protective factors, and risk factors can be predictive of positive or negative outcomes.

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You would be excluded from this study, if you have had one or more spontaneous abortions or miscarriages and/or you do not meet any inclusion criteria listed above.

Procedures: If you volunteer to participate in this study, you will be asked to complete a few demographic questions (i.e. your age, etc.) and then complete a series of questionnaires related to protective factors, risk factors, resilience, depression, anxiety, somatization symptoms, and adaption.

Benefits of Participation: There are no direct benefits to you as a participant in this study.

Risks of Participation: There are risks involved in all research studies, but this study may include only minimal risks in that you may feel uncomfortable or stressed in answering some of the questions. You can 'skip' any questions that you are not comfortable in answering.

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Contact Information: If you have any questions or concerns about the study, you may contact Michele Clark michele.clark@unlv.edu or 702-895-5978 (PI and Faculty Dissertation Chair). For questions regarding the rights of research subjects, any complaints or comments regarding the manner in which the study is being conducted you may contact the UNLV Office of Research Integrity – Human Subjects at 702-895-2794 or toll free at 877-895-2794 or via email at IRB@unlv.edu.

Voluntary Participation: Your participation in this study is voluntary. You may refuse to participate in this study at all or you have the ability to skip answers on the survey and/or submit the survey without requiring an answer on each item.

Confidentiality: All information will be kept completely confidential. No reference will be made in written or oral materials that could link you to this study. All records will be stored in a locked facility at UNLV for 3 years after completion of the study. After the storage time, the information gathered will be destroyed.

This study has been approved with exempt status by our University's Institutional Review Board (IRB).

Participant Consent: If you have read the above information and you meet the inclusion criteria and you wish to participate in this study, the completion of the survey is your consent to participate.

2. Demographics

Please respond below in order to provide demographic information about who is completing these questionnaires. You are not being asked for your name or other personal information, so you will not be identified from the data base as to who said what on the responses on the questionnaires.

1. Please enter your age in years (for example you can just enter 48 if you are 48 years old - you do not need to enter the word 'yr' or 'year' after the number)

[   ]

2. Please enter you birth year (for example: 1949)

[   ]

3. What is your current marital status?

○ Divorced

○ Living Together

○ Married

○ Never Married (Single)

○ Separated

○ Widowed

Other (please specify)

[   ]

4. Which ethnic/racial group do you identify yourself with the most?

○ American-Indian

○ Asian or Pacific Islander

○ Black or African American

○ Caucasian

○ Hispanic or Latino(a)

Other (please specify)

[   ]

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5. Please indicate the highest educational level you attained.

◯ Elementary or less

◯ Middle School graduate or less

◯ Some High School

◯ High School Graduate

◯ Technical/Vocational

◯ Some College

◯ College graduate

◯ Some graduate studies

◯ Graduate degree

Other (please specify)

[   ]

6. Please indicate the actual number of years that you finished in school. (for example if you finished the 8th grade, you can just enter the number 8 in the space provided. You do not need to enter the word 'yr' or 'years' or 'grade' after the number so - just put 8 not 8th grade or 8 years, just the number '8' is enough)

[   ]

7. How many people live in your home with you?

[   ]

8. How are the people living in your household related to you? SELECT ALL THAT APPLY.

☐ Children

☐ Spouse

☐ Significant Other

☐ Sibling (brother or sister)

☐ Parent (Mother or Father)

☐ Aunt or/and Uncle

☐ Cousin

☐ Nephew and/or Niece

☐ Friend

Other (please specify)

[   ]

9. Do you have any children?

◯ Yes

◯ No

10. If you answered yes to the above question, please indicate how many children you have? (Please place "0" if you do not have any children.).

[   ]

11. If you have any children, please indicate each of their ages on the separate boxes below.

Months	[ ]
Months	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]
Years	[ ]

12. Do you own the place where you live?

◯ Yes

◯ No

Other (please specify)

[ ]

13. Please indicate which of the following corresponds to your total household annual income last year.

◯ Under $5,000   ◯ $50,001 - $60,000

◯ $5,001 - $10,000   ◯ $60,001 - $70,000

◯ $10,001 - $20,000   ◯ $70,001 - $80,000

◯ $20,001 - $30,000   ◯ $80,001 - $90,000

◯ $30,001 - $40,000   ◯ $90,001 - $100,000

◯ $40,001 - $50,000   ◯ over $100,001

Other (please specify)

[ ]

14. Are you currently employed?

◯ Yes

◯ No

Other (please specify)

[ ]

15. Which, if any, medical conditions have you received treatment for in the past 5 years?

SELECT ALL THAT APPLY.

If you have not had any medical condition requiring treatment, please select the NONE option

- [ ] Stomach or ulcers or intestinal problems
- [ ] Headaches or migraines
- [ ] Asthma or bronchitis or any lung problem
- [ ] Back pain or arthritis
- [ ] Diabetes or high blood sugar
- [ ] Epilepsy or seizure
- [ ] Heart problem (High blood pressure, Congestive heart failure, chest pain)
- [ ] Other (please specify)

- [ ] Stroke
- [ ] HIV/AIDS
- [ ] Alcoholism
- [ ] Injuries (car accident, paralysis, etc.)
- [ ] Drug Abuse
- [ ] NONE - I have not had any medical conditions requiring treatment in the last five years

16. If you had any of the above medical conditions, please indicate the name of the condition(s) and the year you were diagnosed. For example: Diabetes 2010, High Blood Pressure 2011

17. Have you ever been diagnosed with any psychological or psychiatric conditions listed below?

SELECT ALL THAT APPLY

Select the NONE option if you have not been diagnosed with any psychological/psychiatric condition(s)

☐ Depression

☐ Anxiety

☐ Panic Attacks

☐ Bipolar (Manic Depressive)

☐ Other (please specify)

☐ Schizophrenia

☐ Post-Traumatic Stress Disorder

☐ Obsessive Compulsive Disorder

☐ NONE - I have not been diagnosed with any psychological/psychiatric condition(s)

18. If you had any of the above psychological or psychiatric conditions, please indicate the name of the condition(s) with the year you were diagnosed. For example: Anxiety 2010, Bipolar 2011

19. Please indicate (YES/NO) if your MOTHER received treatment for any of the following conditions. SELECT ALL THE APPLY

	YES	NO
Depression	☐	☐
Anxiety	☐	☐
Panic Attacks	☐	☐
Bipolar (Manic Depressive)	☐	☐
Schizophrenia	☐	☐
Post Traumatic Disorder	☐	☐
Obsessive Compulsive	☐	☐

Other (please specify)

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20. Please indicate (YES/NO) if your FATHER received treatment for any of the following conditions. SELECT ALL THE APPLY

	YES	NO
Depression	☐	☐
Anxiety	☐	☐
Panic Attacks	☐	☐
Bipolar (Manic Depressive)	☐	☐
Schizophrenia	☐	☐
Post Traumatic Disorder	☐	☐
Obsessive Compulsive	☐	☐

Other (please specify)

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21. What is/was your parents' relationship (or other guardians) with EACH OTHER like? SELECT ALL THAT APPLY.

☐ loving   ☐ abusive physically

☐ strained   ☐ amicable

☐ abusive (emotionally, psychologically, verbally)

Other (please specify)

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22. What is/was your parents' relationship (or other guardians) with YOU like? SELECT ALL THAT APPLY.

☐ loving   ☐ abusive physically

☐ strained   ☐ amicable

☐ abusive (emotionally, psychologically, verbally)

Other (please specify)

[   ]

23. Are you currently affiliated (an official member) with a church or organized place of worship?

○ Yes

○ No

24. If you answered yes to the above question, please specify the major denomination of your place of worship. SELECT ALL THAT APPLY.

○ Hindu   ○ Christian/Protestant

○ Buddhism   ○ Christian/Baptist

○ Islam   ○ Christian/Lutheran

○ Mormon   ○ Christian/Other

○ Jewish   ○ I did not answer YES to the above question

○ Christian/Catholic

Other (please specify)

[   ]

25. How often do you attend religious or spiritual services?

○ Almost daily (4 or more times a week)

○ At least once weekly (1 to 3 times per week)

○ At least once monthly (1 to 3 times a month)

○ Only on observed denominational holiday (e.g. Christmas, Passover, etc.)

○ Never

Other (please specify)

[   ]

26. Please enter the number of induced (elective) abortion(s) that you have had (for example you can just enter "7" if you had 7 induced abortions)

[   ]

27. Please indicate your age at each abortion (s) in the separate boxes below.

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

Years [   ]

28. What were the types of abortion(s) that you have had? SELECT ALL THAT APPLY.

[ ] Spontaneous Abortion or Miscarriage

[ ] Therapeutic Abortion

[ ] Surgical Abortion

[ ] Medical Abortion

[ ] Does not apply to me

[ ] Other

Other (please specify)

[   ]

29. If you had any of the above previous abortions, please indicate the type and the number of times you had it. For example: Miscarriage 2, Medical Abortion 2

[   ]

30. Who else in your family has had an abortion(s)?

- [ ] Mother
- [ ] Grandmother
- [ ] Sister
- [ ] Daughter

- [ ] Niece
- [ ] Cousin
- [ ] No one else
- [ ] Do not know

Other (please specify)

31. What made you decide to have your abortion? Please RATE how important each of the following.

	Most Important	Very Important	Somewhat Important	Not Important	Does NOT apply to me
Parent/s' choice or advice	O	O	O	O	O
Boyfriend or spouse or significant other's choice or advice	O	O	O	O	O
Friend/s' choice or advice	O	O	O	O	O
Financial issues	O	O	O	O	O
Career or studies	O	O	O	O	O
Too young to have a baby	O	O	O	O	O
Have enough children.	O	O	O	O	O
Don't want to have a baby at that time	O	O	O	O	O

Other (please specify)

3. Herth Hope Index (HHI)

Please rate your amount of agreement or disagreement with the following questions about Hope.

1. Please rate the items on the left using the scale below.

	Strongly Disagree	Disagree	Agree	Strongly Agree
I have a positive outlook toward life.	O	O	O	O
I have short-and/or long-range goals.	O	O	O	O
I feel all alone.	O	O	O	O
I can see possibilities in the midst of difficulties.	O	O	O	O
I have a faith that gives me comfort.	O	O	O	O
I feel scared about my future.	O	O	O	O
I can recall happy/joyful times.	O	O	O	O
I have a deep inner strength.	O	O	O	O
I am able to give and receive caring/love.	O	O	O	O
I have a sense of direction.	O	O	O	O
I believe that each day has potential.	O	O	O	O
I feel my life has value and worth.	O	O	O	O

4. Spiritual Well-Being Scale (SWBS)

Please rate your amount of agreement or disagreement with the following questions about your spiritual well-being.

1. Please rate the items on the left using the scale below

	Strongly Disagree	Moderately Disagree	Disagree	Agree	Moderately Agree	Strongly Agree
I don't find much satisfaction in private prayer with God.	O	O	O	O	O	O
I don't know who I am, where I came from, or where I'm going.	O	O	O	O	O	O
I believe that God loves me and cares about me.	O	O	O	O	O	O
I feel that life is a positive experience.	O	O	O	O	O	O
I believe that God is impersonal and not interested in my daily situations.	O	O	O	O	O	O
I feel unsettled about my future.	O	O	O	O	O	O
I have a personally meaningful relationship with God.	O	O	O	O	O	O
I feel very fulfilled and satisfied with life.	O	O	O	O	O	O
I don't get much personal strength and support from my God.	O	O	O	O	O	O
I feel a sense of well-being about the direction my life is headed in.	O	O	O	O	O	O

2. Please rate the items on the left using the scale below

	Strongly Disagree	Moderately Disagree	Disagree	Agree	Moderately Agree	Strongly Agree
I believe that God is concerned about my problem.	O	O	O	O	O	O
I don't enjoy much about life.	O	O	O	O	O	O
I don't have a personally satisfying relationship with God.	O	O	O	O	O	O
I feel good about my future.	O	O	O	O	O	O
My relationship with God helps me not to feel lonely.	O	O	O	O	O	O
I feel that life is full of conflict and unhappiness.	O	O	O	O	O	O
I feel most fulfilled when I'm in close communion with God.	O	O	O	O	O	O
Life doesn't have much meaning.	O	O	O	O	O	O
My relation with God contributes to my sense of well-being.	O	O	O	O	O	O
I believe there is some real purpose for my life.	O	O	O	O	O	O

5. General Self-Efficacy Scale (GSE)

The questions below are related to your self-efficacy. Self-efficacy is one's belief in their own ability or one's confidence to achieve a certain behavior.

1. Please rate the items on the left using the scale below.

	Not All True	Hardly True	Moderately True	Exactly True
I can always manage to solve difficult problems if I try hard enough.	O	O	O	O
If someone opposes me, I can find the means and ways to get what I want.	O	O	O	O
It is easy for me to stick to my aims and accomplish my goals.	O	O	O	O
I am confident that I could deal efficiently with unexpected events.	O	O	O	O
Thanks to my resourcefulness, I know how to handle unforeseen situations.	O	O	O	O
I can solve most problems if I invest the necessary effort.	O	O	O	O
I can remain calm when facing difficulties because I can rely on my coping abilities.	O	O	O	O
When I am confronted with a problem, I can usually find several solutions.	O	O	O	O
If I am in trouble, I can usually think of a solution.	O	O	O	O
I can usually handle whatever comes my way.	O	O	O	O

6. Jaloweic Coping Scale (JCS)

The next set of questions are related to how you handle or cope with stress related to abortion: There is a Part A and a Part B.

1. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Worried about the problem	○	○	○	○
Hoped that things would be better	○	○	○	○
Ate or smoke more than usual	○	○	○	○
Thought out different ways to handle the situation	○	○	○	○
Told yourself that things could be much worse	○	○	○	○
Exercised or did some physical activity	○	○	○	○
Tried to get away from the problem for a while	○	○	○	○
Got mad and let off steam	○	○	○	○
Expected the worst that would happen	○	○	○	○
Tried to put the problem out of your mind and think of someone else	○	○	○	○

2. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Talked the problem over with family or friends	○	○	○	○
Accepted the situation because very little could be done	○	○	○	○
Tried to look at the problem objectively and see all sides	○	○	○	○
Daydreamed about a better life	○	○	○	○
Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)	○	○	○	○
Tried to keep the situation under control	○	○	○	○
Prayed or put your trust in God	○	○	○	○
Tried to get out of the situation	○	○	○	○
Kept your feelings to yourself	○	○	○	○
Told yourself that the problem was someone else's fault	○	○	○	○

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3. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Waited to see what would happen	◯	◯	◯	◯
Wanted to be alone to think things out	◯	◯	◯	◯
Resigned yourself to the situation because things looked hopeless	◯	◯	◯	◯
Took out your tensions on someone else	◯	◯	◯	◯
Tried to change the situation	◯	◯	◯	◯
Used relaxation techniques	◯	◯	◯	◯
Tried to find out more about the problem	◯	◯	◯	◯
Slept more than usual	◯	◯	◯	◯
Tried to handle things one step at a time	◯	◯	◯	◯
Tried to keep your life as normal as possible and not let the problem interfere	◯	◯	◯	◯

4. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Thought about how you had handled other problems in the past	◯	◯	◯	◯
Told yourself not to worry because everything would work out fine	◯	◯	◯	◯
Tried to work out a compromise	◯	◯	◯	◯
Took a drink to make yourself feel better	◯	◯	◯	◯
Let time take care of the problem	◯	◯	◯	◯
Tried to distract yourself by doing something that you enjoy	◯	◯	◯	◯
Told yourself that you could handle anything no matter how hard	◯	◯	◯	◯
Set up a plan of action	◯	◯	◯	◯
Tried to keep a sense of humor	◯	◯	◯	◯
Put off facing up to the problem	◯	◯	◯	◯

5. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Tried to keep your feelings under control	○	○	○	○
Talked the problem over with someone who had been in a similar situation	○	○	○	○
Practiced in your mind what had to be done	○	○	○	○
Tried to keep busy	○	○	○	○
Learned something new in order to deal with the problem	○	○	○	○
Did something impulsive or risky that you would not usually do	○	○	○	○
Thought about the good things in your life	○	○	○	○
Tried to ignore or avoid the problem	○	○	○	○
Compared yourself with other people who were in the same situation	○	○	○	○
Tried to think positively	○	○	○	○

6. Part A will ask you questions about how often you have used a method to cope with the stress related to abortion. Please rate the items on the left using the scale below.

	Never Used	Seldom Used	Sometimes Used	Often Used
Blamed yourself for getting into such a situation	○	○	○	○
Preferred to work thing out yourself	○	○	○	○
Took medications to reduce tension	○	○	○	○
Tried to see the good side of the situation	○	○	○	○
Told yourself that this problem was really not that important	○	○	○	○
Avoided being with people	○	○	○	○
Tried to improve yourself in some way so you could handle the situation better	○	○	○	○
Wished that the problem would go away	○	○	○	○
Depended on others to help you out	○	○	○	○
Told yourself that you were just having some bad luck	○	○	○	○

7. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Worried about the problem	○	○	○	○
Hoped that things would be better	○	○	○	○
Ate or smoke more than usual	○	○	○	○
Thought out different ways to handle the situation	○	○	○	○
Told yourself that things could be much worse	○	○	○	○
Exercised or did some physical activity	○	○	○	○
Tried to get away from the problem for a while	○	○	○	○
Got mad and let off steam	○	○	○	○
Expected the worst that would happen	○	○	○	○
Tried to put the problem out of your mind and think of someone else	○	○	○	○

8. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Talked the problem over with family or friends	○	○	○	○
Accepted the situation because very little could be done	○	○	○	○
Tried to look at the problem objectively and see all sides	○	○	○	○
Daydreamed about a better life	○	○	○	○
Talked the problem over with a professional person (such as a doctor, nurse, minister, teacher, counselor)	○	○	○	○
Tried to keep the situation under control	○	○	○	○
Prayed or put your trust in God	○	○	○	○
Tried to get out of the situation	○	○	○	○
Kept your feelings to yourself	○	○	○	○
Told yourself that the problem was someone else's fault	○	○	○	○

9. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Waited to see what would happen	O	O	O	O
Wanted to be alone to think things out	O	O	O	O
Resigned yourself to the situation because things looked hopeless	O	O	O	O
Took out your tensions on someone else	O	O	O	O
Tried to change the situation	O	O	O	O
Used relaxation techniques	O	O	O	O
Tried to find out more about the problem	O	O	O	O
Slept more than usual	O	O	O	O
Tried to handle things one step at a time	O	O	O	O
Tried to keep your life as normal as possible and not let the problem interfere	O	O	O	O

10. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Thought about how you had handled other problems in the past	O	O	O	O
Told yourself not to worry because everything would work out fine	O	O	O	O
Tried to work out a compromise	O	O	O	O
Took a drink to make yourself feel better	O	O	O	O
Let time take care of the problem	O	O	O	O
Tried to distract yourself by doing something that you enjoy	O	O	O	O
Told yourself that you could handle anything no matter how hard	O	O	O	O
Set up a plan of action	O	O	O	O
Tried to keep a sense of humor	O	O	O	O
Put off facing up to the problem	O	O	O	O

11. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Tried to keep your feelings under control	O	O	O	O
Talked the problem over with someone who had been in a similar situation	O	O	O	O
Practiced in your mind what had to be done	O	O	O	O
Tried to keep busy	O	O	O	O
Learned something new in order to deal with the problem	O	O	O	O
Did something impulsive or risky that you would not usually do	O	O	O	O
Thought about the good things in your life	O	O	O	O
Tried to ignore or avoid the problem	O	O	O	O
Compared yourself with other people who were in the same situation	O	O	O	O
Tried to think positively	O	O	O	O

12. Part B will ask you questions about how helpful was the coping method you used in dealing with the stress related to abortion. Please rate the items on the left using the scale below.

	Not Helpful	Slightly Helpful	Fairly Helpful	Very Helpful
Blamed yourself for getting into such a situation	O	O	O	O
Preferred to work thing out yourself	O	O	O	O
Took medications to reduce tension	O	O	O	O
Tried to see the good side of the situation	O	O	O	O
Told yourself that this problem was really not that important	O	O	O	O
Avoided being with people	O	O	O	O
Tried to improve yourself in some way so you could handle the situation better	O	O	O	O
Wished that the problem would go away	O	O	O	O
Depended on others to help you out	O	O	O	O
Told yourself that you were just having some bad luck	O	O	O	O

7. Social Support Behaviors (SSB)

The next two sets of questions are about who provided you support in difficult times. The first question set is about your FAMILY, the second set of questions is about your FRIENDS.

1. How likely would a member of your FAMILY help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some family members would probably do this	Some family members would certainly do this	Most family members would certainly do this
Would suggest doing something, just to take my mind off my problems...	◯	◯	◯	◯	◯
Would visit with me, or invite me over...	◯	◯	◯	◯	◯
Would comfort me if I was upset...	◯	◯	◯	◯	◯
Would give me a ride if I needed one...	◯	◯	◯	◯	◯
Would have lunch or dinner with me...	◯	◯	◯	◯	◯
Would look after my belongings (house, pets, etc.) for awhile...	◯	◯	◯	◯	◯
Would loan me a car if I needed one...	◯	◯	◯	◯	◯
Would joke around or suggest doing something to cheer me up...	◯	◯	◯	◯	◯
Would go to a movie or concert with me...	◯	◯	◯	◯	◯
Would suggest how I could find out more about a situation...	◯	◯	◯	◯	◯

2. How likely would a member of your FAMILY help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some family members would probably do this	Some family members would certainly do this	Most family members would certainly do this
Would help me out with a move or other big chore...	◯	◯	◯	◯	◯
Would listen if I needed to talk about my feelings...	◯	◯	◯	◯	◯
Would have a good time with me...	◯	◯	◯	◯	◯
Would pay for my lunch if I was broke...	◯	◯	◯	◯	◯
Would suggest a way I might do something...	◯	◯	◯	◯	◯
Would give me encouragement to do something difficult...	◯	◯	◯	◯	◯
Would give me advice about what to do...	◯	◯	◯	◯	◯
Would chat with me...	◯	◯	◯	◯	◯
Would help me figure out what I wanted to do...	◯	◯	◯	◯	◯
Would show me that they understood how I was feeling...	◯	◯	◯	◯	◯

3. How likely would a member of your FAMILY help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some family members would probably do this	Some family members would certainly do this	Most family members would certainly do this
Would buy me a drink if I was short of money...	◯	◯	◯	◯	◯
Would help me decide what to do...	◯	◯	◯	◯	◯
Would give me a hug, or otherwise show me I was cared about...	◯	◯	◯	◯	◯
Would call me just to see how I was doing...	◯	◯	◯	◯	◯
Would help me figure out what was going on...	◯	◯	◯	◯	◯
Would help me out with some necessary purchase...	◯	◯	◯	◯	◯
Would not pass judgment on me...	◯	◯	◯	◯	◯
Would tell me who to talk to for help...	◯	◯	◯	◯	◯
Would loan me money for an indefinite period...	◯	◯	◯	◯	◯
Would be sympathetic if I was upset...	◯	◯	◯	◯	◯

4. How likely would a member of your FAMILY help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some family members would probably do this	Some family members would certainly do this	Most family members would certainly do this
Would stick by me in a crunch...	O	O	O	O	O
Would buy me clothes if I was short of money...	O	O	O	O	O
Would tell me about the available choices and options...	O	O	O	O	O
Would loan me tools, equipment, or appliances if I needed them...	O	O	O	O	O
Would give me reasons why I should or should not do something...	O	O	O	O	O
Would show affection for me...	O	O	O	O	O
Would show me how to do something I didn't know how to do...	O	O	O	O	O
Would bring me little presents of things I needed...	O	O	O	O	O
Would tell me the best way to get something done...	O	O	O	O	O
Would talk to other people, to arrange something for me...	O	O	O	O	O

5. How likely would a member of your FAMILY help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some family members would probably do this	Some family members would certainly do this	Most family members would certainly do this
Would loan me money and want to "forget about it"...	O	O	O	O	O
Would tell me what to do...	O	O	O	O	O
Would offer me a place to stay for awhile...	O	O	O	O	O
Would help me think about a problem...	O	O	O	O	O
Would loan me a fairly large sum of money (say the equivalent of a month's rent or mortgage)...	O	O	O	O	O

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6. How likely would your FRIENDS help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some friends would probably do this	Some friends would certainly do this	Most friends would certainly do this
Would suggest doing something, just to take my mind off my problems...	O	O	O	O	O
Would visit with me, or invite me over...	O	O	O	O	O
Would comfort me if I was upset...	O	O	O	O	O
Would give me a ride if I needed one...	O	O	O	O	O
Would have lunch or dinner with me...	O	O	O	O	O
Would look after my belongings (house, pets, etc.) for awhile...	O	O	O	O	O
Would loan me a car if I needed one...	O	O	O	O	O
Would joke around or suggest doing something to cheer me up...	O	O	O	O	O
Would go to a movie or concert with me...	O	O	O	O	O
Would suggest how I could find out more about a situation...	O	O	O	O	O

7. How likely would your FRIENDS help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some friends would probably do this	Some friends would certainly do this	Most friends would certainly do this
Would help me out with a move or other big chore...	O	O	O	O	O
Would listen if I needed to talk about my feelings...	O	O	O	O	O
Would have a good time with me...	O	O	O	O	O
Would pay for my lunch if I was broke...	O	O	O	O	O
Would suggest a way I might do something...	O	O	O	O	O
Would give me encouragement to do something difficult...	O	O	O	O	O
Would give me advice about what to do...	O	O	O	O	O
Would chat with me...	O	O	O	O	O
Would help me figure out what I wanted to do...	O	O	O	O	O
Would show me that they understood how I was feeling...	O	O	O	O	O

8. How likely would your FRIENDS help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some friends would probably do this	Some friends would certainly do this	Most friends would certainly do this
Would buy me a drink if I was short of money...	◯	◯	◯	◯	◯
Would help me decide what to do...	◯	◯	◯	◯	◯
Would give me a hug, or otherwise show me I was cared about...	◯	◯	◯	◯	◯
Would call me just to see how I was doing...	◯	◯	◯	◯	◯
Would help me figure out what was going on...	◯	◯	◯	◯	◯
Would help me out with some necessary purchase...	◯	◯	◯	◯	◯
Would not pass judgment on me...	◯	◯	◯	◯	◯
Would tell me who to talk to for help...	◯	◯	◯	◯	◯
Would loan me money for an indefinite period...	◯	◯	◯	◯	◯
Would be sympathetic if I was upset...	◯	◯	◯	◯	◯

9. How likely would your FRIENDS help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some friends would probably do this	Some friends would certainly do this	Most friends would certainly do this
Would stick by me in a crunch...	◯	◯	◯	◯	◯
Would buy me clothes if I was short of money...	◯	◯	◯	◯	◯
Would tell me about the available choices and options...	◯	◯	◯	◯	◯
Would loan me tools, equipment, or appliances if I needed them...	◯	◯	◯	◯	◯
Would give me reasons why I should or should not do something...	◯	◯	◯	◯	◯
Would show affection for me...	◯	◯	◯	◯	◯
Would show me how to do something I didn't know how to do...	◯	◯	◯	◯	◯
Would bring me little presents of things I needed...	◯	◯	◯	◯	◯
Would tell me the best way to get something done...	◯	◯	◯	◯	◯
Would talk to other people, to arrange something for me...	◯	◯	◯	◯	◯

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10. How likely would your FRIENDS help you out in each of the specific ways listed below?

	No one would do this	Someone might do this	Some friends would probably do this	Some friends would certainly do this	Most friends would certainly do this
Would loan me money and want to "forget about it"...	◯	◯	◯	◯	◯
Would tell me what to do...	◯	◯	◯	◯	◯
Would offer me a place to stay for awhile...	◯	◯	◯	◯	◯
Would help me think about a problem...	◯	◯	◯	◯	◯
Would loan me a fairly large sum of money (say the equivalent of a month's rent or mortgage)...	◯	◯	◯	◯	◯

8. Effectiveness of Obtaining Resources Scale (EOR)

You will now be asked questions on how you are able to get the resources that you need.

1. Use the rating scale below to indicate how likely would you be able to get the resources that you need. The resources are listed on the left.

	Not very effective	Slightly effective	Fairly effective	Very effective
Housing	O	O	O	O
Material goods and resources	O	O	O	O
Education	O	O	O	O
Employment	O	O	O	O
Health	O	O	O	O
Child Care	O	O	O	O
Transportation	O	O	O	O
Social Support	O	O	O	O
Legal Assistance	O	O	O	O
Finances	O	O	O	O
Issues regarding children	O	O	O	O

9. The Resilience Scale

The next set of question are about RESILIENCE (your ability to bounce back or cope successfully in spite of adversity).

1. Please rate the items on the left using the scale below.

	Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
When I make plans, I follow through with them.	O	O	O	O	O	O	O
I usually manage one way or another.	O	O	O	O	O	O	O
I am able to depend on myself more than anyone else.	O	O	O	O	O	O	O
Keeping interested in things is important to me.	O	O	O	O	O	O	O
I can be on my own if I have to.	O	O	O	O	O	O	O
I feel proud that I have accomplished things in life.	O	O	O	O	O	O	O
I usually take things in stride.	O	O	O	O	O	O	O
I am friends with myself.	O	O	O	O	O	O	O
I feel that I can handle many things at a time.	O	O	O	O	O	O	O
I am determined.	O	O	O	O	O	O	O

2. Please rate the items on the left using the scale below.

	Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
I seldom wonder what the point of it all is.	O	O	O	O	O	O	O
I take things one day at a time.	O	O	O	O	O	O	O
I can get through difficult times because I've experienced difficulty before.	O	O	O	O	O	O	O
I have self-discipline.	O	O	O	O	O	O	O
I keep interested in things.	O	O	O	O	O	O	O
I can usually find something to laugh about.	O	O	O	O	O	O	O
My belief in myself gets me through hard times.	O	O	O	O	O	O	O
In an emergency, I'm someone people can generally rely on.	O	O	O	O	O	O	O
I can usually look at a situation in a number of ways.	O	O	O	O	O	O	O
Sometimes I make myself do things whether I want to or not.	O	O	O	O	O	O	O

3. Please rate the items on the left using the scale below.

	Strongly Disagree	Moderately Disagree	Disagree	Neutral	Agree	Moderately Agree	Strongly Agree
My life has meaning.	O	O	O	O	O	O	O
I do not dwell on things that I can't do anything about.	O	O	O	O	O	O	O
When I'm in a difficult situation, I can usually find my way out of it.	O	O	O	O	O	O	O
I have enough energy to do what I have to do.	O	O	O	O	O	O	O
It's okay if there are people who don't like me.	O	O	O	O	O	O	O
I am resilient.	O	O	O	O	O	O	O

10. HSCL-25 Scale

This instrument will assess your symptoms or problems you are experiencing or bothering you.

1. Use the rating scale below to indicate how likely you are experiencing the symptoms. The symptoms are listed on the left.

	Not all	A little	Quite a bit	Extremely
Suddenly scared for no reason	◯	◯	◯	◯
Feeling fearful	◯	◯	◯	◯
Faintness, dizziness or weakness	◯	◯	◯	◯
Nervousness or shakiness inside	◯	◯	◯	◯
Heart pounding or racing	◯	◯	◯	◯
Trembling	◯	◯	◯	◯
Feeling tense or keyed up	◯	◯	◯	◯
Headaches	◯	◯	◯	◯
Spell of terror or panic	◯	◯	◯	◯
Feeling restless or can't sit still	◯	◯	◯	◯

2. Use the rating scale below to indicate how likely you are experiencing the symptoms. The symptoms are listed on the left.

	Not all	A little	Quite a bit	Extremely
Feeling low in energy, slowed down	◯	◯	◯	◯
Blaming yourself for things	◯	◯	◯	◯
Crying easily	◯	◯	◯	◯
Loss of sexual interest or pleasure	◯	◯	◯	◯
Poor appetite	◯	◯	◯	◯
Difficulty falling asleep, staying asleep	◯	◯	◯	◯
Feeling hopeless about future	◯	◯	◯	◯
Feeling blue	◯	◯	◯	◯
Feeling lonely	◯	◯	◯	◯
Thoughts of ending your life	◯	◯	◯	◯

3. Use the rating scale below to indicate how likely you are experiencing the symptoms. The symptoms are listed on the left.

	Not all	A little	Quite a bit	Extremely
Feeling of being trapped or caught	◯	◯	◯	◯
Worry too much about things	◯	◯	◯	◯
Feeling no interest in things	◯	◯	◯	◯
Feeling everything is an effort	◯	◯	◯	◯
Feeling of worthlessness	◯	◯	◯	◯

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11. Satisfaction With Life Scale (SWLS)

This few questions below will ask about how satisfied you are with your life as a whole.

1. Please rate the items on the left using the scale below.

	Strongly Agree	Agree	Slightly Agree	Neither Agree or Disagree	Slightly Disagree	Disagree	Strongly Disagree
In most ways my life is close to my ideal.	O	O	O	O	O	O	O
The condition of my life are excellent.	O	O	O	O	O	O	O
I am satisfied with my life.	O	O	O	O	O	O	O
So far I have gotten the important things I want in life.	O	O	O	O	O	O	O
If I could live my life over, I would change almost nothing.	O	O	O	O	O	O	O

12. Support Groups

ORGANIZATIONS, RESOURCES, AND LINKS

Please note: The services offered by help/healing groups are confidential and, in many cases, free. Inclusion in this list should not be taken as an endorsement of any group's programs or philosophy.

Use your best judgment and discretion as you investigate these links. If you are experiencing shame or guilt because of abortion, and have a negative experience with a particular group, you may believe that is what you deserve. It isn't. What you deserve is respect, a nonjudgmental attitude, and effective assistance as you heal. If one person or organization isn't right for you, another one will be.

Local Pregnancy Center Based Support Groups

Some Pregnancy Resource Centers (PRCs) and Crisis Pregnancy Centers (CPCs) host post-abortion support groups. These groups typically meet weekly for a period of anywhere from 8 to 16 weeks, and use a variety of recovery guides, including "Forgiven and Set Free", "Her Choice to Heal", PACE (Post-Abortion Counseling and Education), the Rachel's Vineyard weekly support model, or the "My Guilt, Grief and Shame are Ending Soon" program.

To find out if there is a PRC or CPC offering post-abortion help in your area, check with the following group:

Carenet/Option Line
1-800-395-HELP (4351)
www.optionline.org

13. Online Support Groups

Abortion Changes You
A website giving women, men, family members and others involved in abortion a safe place to share their experiences in a confidential and neutral environment. Includes articles, information and resources on coping with abortion and resolving the experience, along with links to local support and counseling groups.

Emerge - It is a discussion and support group for women who have had an abortion. An alternative to politically motivated counseling agencies. Pro-Choice Resources & Tubman (formally known as the Chrysalis Center for Women) founded this group to empower and support each woman, regardless of her political, religious or philosophical perspective on abortion. http://www.prochoiceresources.org/emerge.php

Exhale - Pro-choice support group that serves women who have abortions, and their partners, friends and family. We respect the cultural, social and religious beliefs of all our callers. http://www.4exhale.org/

Healing Women Online - This site is for women who have had an abortion, and want a place to talk about their abortion, and find peer support in a neutral, non-judgmental place. http://www.afterabortion.com/

Independent Email Support Groups at Yahoo Groups
In addition to e-groups sponsored through some of the sites listed above; there are a number of independent post-abortion e-groups. It is free and easy to create an e-group through Yahoo Groups. Anyone with an email address can do it. At this time, there are 42 abortion recovery e-groups registered through Yahoo groups. Here's a link that takes you to the Yahoo index for these groups. Note that on the index, you can see how many people belong to each list.

Just Say Yes: Coalition for Positive Sexuality Information for teens about abortion and the issues surrounding it.

Kala's Group
An online community with an intimate feel. Kala's Group hosts message boards, and scheduled chats. It also has a memorials page.

Lifecall: Getting the Help You Need
Informative webpage by Teri Reisser, author of "A Solitary Sorrow," a self-help book and Bible study for healing after abortion. This page includes streaming audio presentations.

NOW and Abortion Rights – The National Organization for Women (NOW) has a list of pro-choice resources, a list of their pro-choice activities, and a list of pro-choice activities that individuals can participate in.

Victims of Choice
An informative and welcoming website. Elizabeth Verchio, Director, has created "My Guilt, Grief and Shame are Ending Soon." a 10-session program that is especially designed for one-on-one work between someone experiencing emotional and spiritual wounds and a trained peer counselor. Victims of Choice offers many resources for establishing abortion recovery centers, including a 217-page Abortion Recovery Facilitator Guidebook.

14. Other Organizations or Resources

Abortion Recovery Network
National toll-free hotline at 1-866-4-MY-RECOVERY (1-866-469-7326)
A network of ministries that provides information and counseling for those suffering after abortion. Their web site helps locate post-abortion ministries both in the U.S. and internationally. Also provides help to men, family members, medical personnel and those in prison who have been affected by abortion.

National Helpline for Abortion Recovery
National toll-free hotline at 1-866-482-LIFE (1-866-482-5433)
24 / 7 confidential care helpline for women, men and families struggling after abortion. Calls are answered by trained phone consultants who have themselves experienced abortion and want to help others find healing. They can help you find the support group nearest you. A directory of local support groups, searchable by zip code, is available on the organization's web site.

Rachel's Vineyard Ministries
National toll-free hotline at 1-877-HOPE-4-ME (1-877-467-3463)
Rachel's Vineyard offers post-abortion weekend retreats and weekly support groups in 42 states and 4 countries. The retreat is Christian and is offered in interdenominational, Catholic and ecumenical formats. It has been translated into four languages, including Spanish.
Rachel's Vineyard has a monthly e-newsletter, "Vine and Branches," which is archived on their website and available on request. It has various aftercare resources including an email newsletter called "Oaktrees," and offers individual email support through the website.
Rachel's Vineyard has had an annual national Leadership Conference since 2000 and also offers one-day clinical trainings throughout the country. It hosts a very active e-group for mental health professionals and laypeople that serve on retreat teams, or are planning to offer the retreat.

Ramah International
Sydna Masse, Director; phone (941) 473-2188.
This Christian group supports post-abortion ministry through training programs, resources, research and promoting awareness of post-abortion issues. Director Sydna Masse is the author of the recovery book, "Her Choice to Heal". Sydna has also created a leader's guide so that "Her Choice to Heal" can be used as the basis for in-person weekly recovery groups.
Ramah International has a newsletter, various additional resources, and can be used as a point of referral to weekly recovery groups around the country. You can also find e-mail support through the Ramah website.

The National Office of Post-Abortion Reconciliation and Healing (NOPARH)/
Project Rachel
National toll-free hotline at 1-800-5WE-CARE.
Project Rachel is a post-abortion outreach of the Catholic Church, while NOPARH is intended as a non-denominational referral source for post-abortion help. Project Rachel was founded in 1984 by Vicki Thorn, who is the director of NOPARH.
NOPARH has hosted several international conferences on post-abortion reconciliation and Vicki Thorn offers one-day trainings. Catholic dioceses that have their own Project Rachel can also be a source for local referrals. By calling the national office at 1-800-5WE-CARE, you will generally be referred to the local Project Rachel office nearest to you. That office can then refer you to helpful and trained clergy, therapists, retreats and support groups.

15. Thank you!

Thank you for completing our survey!

You can redeem your $5.00 gift certificate from Amazon.com by using the promotional code that will be given to you at the completion of the survey.

The gift certificate will expire on May 31, 2012.

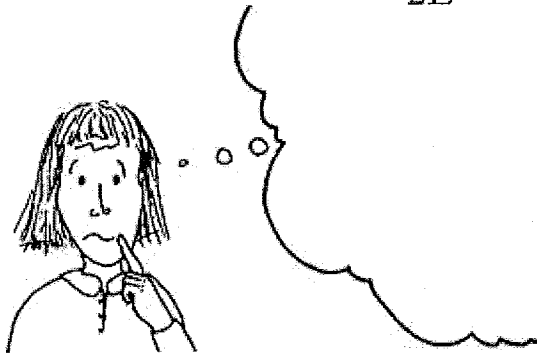If you have any questions or concerns, please call Anna Marie Antonio at (925) 331-0613.

Participant Recruitment Flyer

Are you resilient? How resilient are you?

What does resilience mean?

Find out the answers ...

Modulus of Resilience

$$U_r = \frac{\sigma^2}{2E} = 0.5\sigma\epsilon = 0.5\sigma\left(\frac{\sigma}{E}\right)$$

If you are a woman at least 18 years old, living in the USA, have had one or more elective abortion at any time, and willing to give consent; you are invited to VOLUNTARILY participate in a research study about resilience following an elective abortion.

You will be asked to complete a series of questionnaires that will take approximately 30 – 40 minutes of your time. The questionnaires will be on resilience and situations that can help lead to positive or negative outcomes. You will receive a $5.00 gift certificate from Amazon.com upon completion of the questions. All information will be kept completely confidential. If you have any questions or concerns about the research study, you may contact Anna Marie Antonio, PhDc, MSN, FNP-C, APRN, 925-331-0613, antonioa@unlv.nevada.edu.

The faculty and principal investigator of this study is Michele Clark, PhD, RN. You can contact her at University of Nevada Las Vegas School of Nursing, 702-895-5978, michele.clark@unlv.edu.

If you are interested in participating, please click on the website below

http://www.surveymonkey.com/s/resiliencestudy

Let your voice be heard!!!

Permission to Use the Herth Hope Index (HHI)

Anna Marie Antonio <antonioa@unlv.nevada.edu>   7/23/11

to kaye.herth

Dear Dr. Herth,

I am a doctoral candidate from the University of Nevada, Las Vegas School of Nursing. I am working on my dissertation paper entitled "Predictors of Resilience and Their Influence on Adaptation After Elective Abortion." I would like to request for your permission to use your Herth Hope Index as part of my measurement instruments for data collection.

I would appreciate hearing from you as soon as possible about your permission and its terms prior to the usage of your tool.

Sincerely,

Anna Marie Antonio, MSN, FNP-C, APRN

Herth, Kaye A ███████████████   7/23/11
to me

Dear Anna Marie,

I was excited to hear about your interest in resilence and hope in those having undergone an elective abortion. I have attached a copy of the Herth Hope Index (HHI), the longer Herth Hope Scale (HHS), scoring instructions, and several reference lists I have compiled on hope primarily from the nursing discipline.

You have my permission to use either the HHI or HHS in your doctoral dissertation project. I would appreciate, upon completion of your research project, a summary of the findings.

Best wishes in your highly important research. If I can be of any further assistance please don't hesitate to contact me.

Sincerely,

Dr. Kaye Herth

Kaye A. Herth, Ph.D., R.N., F.A.A.N.
Minnesota State University, Mankato
Dean Emerita

████████████████████████████████████

From: Anna Marie Antonio [antonioa@unlv.nevada.edu]
Sent: Saturday, July 23, 2011 2:55 PM
To: Herth, Kaye A
Subject: Herth Hope Index

5 attachments — Download all attachments

Herth Hope Index_MSWord6.0.doc
36K   View   Download

Herth Hope Scale_MSWord6.0.doc
63K   View   Download

HHS_HHI Scoring Info_MSWor.doc
28K   View   Download

hoperefHHI OR HHS.doc
95K   View   Download

hoperefFINAL.doc
224K   View   Download

Permission to Use the Spiritual Well-Being Scale (SWBS)

On Jul 2, 2011, at 9:38 PM, Anna M. Antonio wrote:

This contact form was sent from lifeadvance.com. Please respond accordingly.

Name
Anna M. Antonio
Email
Anna Marie ANTONIO <antonio@unblv.nevada.edu>
Subject
permission to use the SWBS
Message
I am a PhD student. I'm asking for permission to use the SWBS in my research study. I plan to use the tool online. Am I supposed to purchase a copy first?

Submitted by ████████

On Jul 3, 2011, at 9:22 AM, Ray Paloutzian ████████ wrote:

Anna,

One thing I forgot to mention when I sent the below message -- be sure to follow the student discount procedure because that gives you everything at a 50% discount. Half price for students.

The stipulations for use of the SWBS via an online method are as follows:

With your purchase of a certain number of copies (or, in this case, that means electronic administrations) of the scale, you are authorized to load the SWBS onto a restricted website (e.g. Survey Monkey is often used for this) and collect data on the N for which you have purchased authorization. Purchase of one copy authorizes you to make one paper copy or to have it filled out online one time. Thus it is necessary to purchase the N that you will have completed. I.e., if, for example, your N = 75, you would (if using paper copies) use the products page on the website to purchase 75 copies, which authorizes you to make that number of copies from the PDF download of the scale that you collect through the procedure. If your study is using electronic administration, then the N = 75 is the same, i.e., the number of electronic copies that will be filled out by your subjects. The scale must be removed from the website at the close of data collection. The copyright line that appears at the bottom of the scale should also appear

on the electronic copy. Also, access to the website is to be by password and used only by those you authorize to use it, i.e., access is restricted to your subjects. With those stipulations, it is OK to load it onto a restricted website, collect the data for your N, and then remove it.

Not part of any formality or such, if you decide to use the SWBS I would much appreciate receiving a copy of your write up of your research because I am interested in this area and want to learn of the new and interesting data that is being collected. So please put me on your "whom to send the results to" list.

Thanks,

Ray

APPENDIX V

Permission to Use the General Self-Efficacy Scale (GSE)

Freie Universität ⬤ Berlin

Freie Universität Berlin, Gesundheitspsychologie (PF 10),
Habelschwerdter Allee 45, 14195 Berlin, Germany

Fachbereich Erziehungs-
wissenschaft und Psychologie
- Gesundheitspsychologie -

Professor Dr. Ralf Schwarzer
Habelschwerdter Allee 45
14195 Berlin, Germany

Fax   +49 30 838 55634
health@zedat.fu-berlin.de
www.fu-berlin.de/gesund

Permission granted

to use the General Self-Efficacy Scale for non-commercial reseach and development purposes. The scale may be shortened and/or modified to meet the particular requirements of the research context.

http://userpage.fu-berlin.de/~health/selfscal.htm

You may print an unlimited number of copies on paper for distribution to research participants. Or the scale may be used in online survey research if the user group is limited to certified users who enter the website with a password.

There is no permission to publish the scale in the Internet, or to print it in publications (except 1 sample item).

The source needs to be cited, the URL mentioned above as well as the book publication:

Schwarzer, R., & Jerusalem, M. (1995). 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.

Professor Dr. Ralf Schwarzer
www.ralfschwarzer.de

Permission to Use the Jalowiec Coping Scale (JCS)

Anna Marie Antonio antonioa@unlv.nevada.edu   7/23/11

to ███████

Dear Dr. Jalowiec,

I am a doctoral candidate from the University of Nevada, Las Vegas School of Nursing. I am working on my dissertation paper entitled "Predictors of Resilience and Their Influence on Adaptation After Elective Abortion." I would like to request for your permission to use your Jalowiec Coping Scale as part of my measurement instruments for data collection.

I would appreciate hearing from you as soon as possible about your permission and its terms prior to the usage of your tool.

Sincerely,

Anna Marie Antonio, MSN, FNP-C, APRN, PhDc

Anne Jalowiec ███████████████   8/2/11

to me

Dear Ms Antonio:

Thank you for your interest in the Jalowiec Coping Scale (JCS). Please be advised that there is a user's fee of $75 for permission to use the JCS and to obtain the JCS packet of materials.

Along with a copy of the scale, the JCS packet contains the following materials: a description of the JCS, a list of which items belong to which subscales (for coding and scoring the instrument), directions for scoring the JCS, reliability and validity data on the JCS, and a JCS bibliography.

Therefore, if you would like to use the JCS in your project, please send a check for $75 made out to my name (Anne Jalowiec) to the following address:

Dr Anne Jalowiec

█████████████████████████

As soon as I receive your check, I will email the JCS packet to you.

If you have any questions, please email me at: ████████████████████

Sincerely,

Dr Anne Jalowiec, RN, PhD
Professor Emeritus, Loyola University of Chicago

Anne Jalowiec ██████████████   8/6/11

Dear Ms Antonio:

I received your JCS check today; thank you very much.
Attached is the JCS packet as 6 pdf files.

Good luck with your research.

Dr Jalowiec

6 attachments — Download all attachments
JCS.pdf
57K   View   Download

JCSDESCRIPTION.pdf
37K   View   Download

JCSSCORING.pdf
35K   View   Download

JCSSUBSCALES.pdf
35K   View   Download

JCSR&V.pdf
31K   View   Download

JCSBIB.pdf
77K   View   Download

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Permission to Use the Social Support Behaviors (SSB)

Anna Marie Antonio antonioa@unlv.nevada.edu   7/23/11
to alanvaux

Dear Dr. Vaux,

I am a doctoral candidate from the University of Nevada, Las Vegas School of Nursing. I am working on my dissertation paper entitled "Predictors of Resilience and Their Influence on Adaptation After Elective Abortion." I would like to request for your permission to use your Social Support Behaviors (SSB) as part of my measurement instruments for data collection.

I would appreciate hearing from you as soon as possible about your permission and its terms prior to the usage of your tool.

Sincerely,
Anna Marie Antonio, MSN, FNP-C, APRN,

Alan Vaux ████████████   7/25/11

to me

Dear Ms. Antonio,

Thank you for your interest in one of my social support measures, the SSB. You have my permission to use the measure. I have attached information that may be of help to you.

Best wishes,

Alan

From: Anna Marie Antonio [mailto:antonioa@unlv.nevada.edu]
Sent: Saturday, July 23, 2011 3:03 PM
To: ███████████
Subject: Social Support Behaviors

SSB.doc
42K   View   Download

Anna Marie Antonio <antonioa@unlv.nevada.edu>   7/25/11
to Alan

Dear Dr. Vaux,

I truly appreciate your willingness to let me use your SSB tool. Thank you for the attached information on the SSB tool. I am sure that I will use them.

Many thanks!

Anna Marie

Permission to Use the Effectiveness of Obtaining Resources Scale (EOR)

Anna Marie Antonio <antonioa@unlv.nevada.edu> 7/23/11

to sulliv22

Dear Dr. Sullivan, I am a doctoral candidate from the University of Nevada, Las Vegas School of Nursing. I am working on my dissertation paper entitled "Predictors of Resilience and Their Influence on Adaptation After Elective Abortion." I would like to request for your permission to use your Effectiveness of Obtaining Resources Scale (EOR) as part of my measurement instruments for data collection.   I would appreciate hearing from you as soon as possible about your permission and its terms prior to the usage of your tool. Sincerely,

Anna Marie Antonio, MSN, FNP-C, APRN

Cris Sullivan ███████████ 7/23/11

to me

Yes, absolutely. It's free and you're welcome to use it. Information about it and citations are attached. Good luck with your research!

EOR measure.doc
25K View Download

Anna Marie Antonio <antonioa@unlv.nevada.edu> 7/24/11

to Cris

Dear Dr. Sullivan,

I truly appreciate your willingness to let me use your EOR tool.

Many thanks,

Anna Marie

APPENDIX Z

Permission to Use the Resilience Scale (RS)

-----Original Message-----
From: info@resiliencecenter.com [mailto:info@resiliencecenter.com]
Sent: Saturday, March 09, 2013 12:13 PM
To: info@resiliencescale.com
Subject: The Resilience Scale 25

Username: Anna Marie Antonio
UserEmail: antonioa@unlv.nevada.edu
Date: 09 Mar 2013
Time: 12:13:06

Comments:

Dear Dr. Wagnild,

I am a PhD candidate. I checked your website 3 yrs. ago for the Resilience
Scale (25 Questions) and requested for its use in my dissertation study. to
my understanding I was given the permission to use your scale. I'm
finishing up my study this semester. I didn't see this website before that
I needed to pay. Do you want me to pay now for using your Resilience Scale?

Thank you!
Anna Marie

On Mon, Mar 11, 2013 at 4:36 PM, Gail Wagnild ██████████████████████
wrote:

Hi and thank you for your conscientious letter. We didn't start charging for
the license until 2012 and so you still have permission to use the scale
using the earlier user guidelines.
Thank you for your letter.

Sincerely,
Gail Wagnild, RN, PhD
Owner and CEO
Resilience Center
www.resiliencescale.com
Phone: 800.671.0259
Fax: 888.244.1964

10:09 PM (1 minute ago)

Anna Marie Antonio <antonioa@unlv.nevada.edu>
to Gail

Dear Dr. Wagnild,

I truly appreciate your kind consideration and for giving me the permission to use your instrument without paying.

Thanks again!

Anna Marie

APPENDIX AA

Permission to Use the Hopkins Symptom Check List – 25 (HSCL – 25)

MASSACHUSETTS
GENERAL HOSPITAL

HARVARD PROGRAM IN
REFUGEE TRAUMA

Harvard Program in Refugee Trauma
22 Putnam Ave. Cambridge, MA 02139
Tel: 617.876.7879   Fax: 617.876.2360
http://www.hprt-cambridge.org

Receipt

August 1st, 2011

Received $80.00 (check # 132 dated 7/21/11) for Measuring Trauma & Measuring Torture on CD from

Anna M Antonio

███████████████

Measuring Trauma Measuring Torture on CD	$ 75.00
Shipping	$ 05.00
Total	$ 80.00

Thank you

Sincerely,

███████████████

Svang Tor
Senior Clinician and Consultation/Liaison
Harvard Program in Refugee Trauma
22 Putnam Avenue, Cambridge, MA 02139
Tel: 617.876.7879 Fax: 617.876.2360
stor@partners.org
http://www.hprt-cambridge.org

Appendix AB

Permission to Use the Satisfaction With Life Scale (SWLS)

Permission to Use

The scale is in the public domain (not copyrighted) and therefore you are free to use it without permission or charge by all professionals (researchers and practitioners) as long as you give credit to the authors of the scale: Ed Diener, Robert A. Emmons, Randy J. Larsen and Sharon Griffin as noted in the 1985 article in the *Journal of Personality Assessment*.

BIBLIOGRAPHY

Abidin, R. R., Jenkins, C. L., & McGaughey, M. C. (1992). The relationship of early family variables to children's subsequent behavioral adjustment. *Journal of Clinical Child Psychology, 21*(1), 60-69.

Achenbach, T. M., Howell, C. T., Quay, H. C., & Conners, C. K. (1991). National survey of problems and competencies among four to sixteen year olds. *Monographs of the Society for Research in Child Development, 56*(3), 225.

Ackerman, B. P., D'Eramo, K. S., Umylny, L., Schultz, D., & Izard, C. E. (2001). Family structure and the externalizing behavior of children from economically disadvantaged families. *Journal of Family Psychology, 15*(2), 288-300.

Ainsworth, M. D. (1989). Attachments beyond infancy. *American Psychologist, 44*(4), 709-719.

Alva, S. A., & de los Reyes, R. (1999). Psychosocial stress, internalized symptoms, and the academic achievement of Hispanic adolescents. *Journal of Adolescent Research, 14*, 343-358.

Amaral, G., Foster, D. G., Biggs, M. A., Jasik, C. B., Judd, S., & Brindis, C. D. (2007). Public savings from the prevention of unintended pregnancy: A cost analysis of family planning service in California. *Health Services Research, 42*(5), 1960-1980.

American Psychiatric Association (1995). Diagnostic and statistical manual of psychiatric disorders (4th ed.). Washington, DC: APA Press.

Angell, C. B., Dennis, B. G., & Dumain, L. E. (1998). Spirituality, resilience, and narrative: Coping with parental death. *Families in Society, 79*(6), 615-630.

Arnold, D. H., & Doctoroff, G. L. (2003). The early education of socioeconomically disadvantaged children. *Annual Review of Psychology, 54*, 517-545.

Arrindell, W. A., Meeuwesen, L., & Huyse, F. J. (1991). The satisfaction with life scale (SWLS): Psychometric properties in a non-psychiatric medical outpatients sample. *Personality and Individual Differences, 12*(2), 117-123.

Arthur, M. W., Hawkins, J. D., Pollard, J. A., Catalano, R. F., & Baglioni, R. F. (2002). Measuring risk and protective factors for substance abuse, delinquency, and other adolescent problem behaviors. The communities that care youth survey. *Evaluation Review, 26*, 575-601.

Ashok, P. W., Hamoda, H., Flett, G. M., Kidd, A., Fitzmaurica, A., & Templeton, A. (2005). Psychological sequelae of medical and surgical abortion at 10-13 weeks gestation. *Acta Obstetricia et Gynecologica Sandinavica, 84*(8), 761-766.

Belle, D., & Doucet, J. (2003). Poverty, inequality, and discrimination as sources of depression among U.S. women. *Psychology of Women Quarterly, 27*, 101-113.

Bonanno, G. (2004). Loss, trauma, and human resilience: Have we underestimated the human capacity to thrive after extremely aversive events? *American Psychologist, 59*, 20-28.

Boscaglia, N., Clarke, D. M., Jobling, T. W., & Quinn, M. A. (2005). The contribution of spirituality and spiritual coping to anxiety and depression in women with a recent diagnosis of gynecological cancer. *International Journal of Gynecological Cancer, 15*(5), 755-761.

Botvin, G. J., Malgady, R. G., Griffin, K. W., Scheier, L. M., Epstein, J. A. (1998). Alcohol and marijuana use among rural youth: Interaction of social and intrapersonal influences. *Addictive Behavior, 23*, 379-387.

Bradley, R. H., Whiteside, L., Mundfrom, D. J., & Casey, P. H. (1994). Early indications of resilience and their relation to experiences in the home environment of low birth weight, premature children living in poverty. *Child Development, 65*, 346-360.

Breslau, N., Schulz, L., & Petersen, E. (1995). Sex differences in depression: A role for preexisting anxiety. *Psychiatry Research, 58*, 1-12.

Breton, J., Tousignant, M., Bergeron, L., & Berthiaume, C. (2002). Informant-specific correlates of suicidal behavior in a community survey of 12 to 14 years old. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*, 723-730.

Bridges, L., & Moore, K. (2002). *Religion and spirituality in childhood and adolescence.* Washington, DC: Child Trends Inc.

Broen, A. N., Moum, T., Bodtker, A. S., & Ekeberg, O. (2006). Predictors of anxiety and depression following pregnancy termination: A longitudinal five-year follow-up study. *Acta Obstetricia et Gynecologica Sandinavica, 85*(3), 317-323.

Brook, J. S., Brook, D. W., De La Rosa, M., Whiteman, M., Johnson, E., & Montoya, I. (2001). Adolescent illegal drug use: The impact of personality, family, and environmental factors. *Journal of Behavioral Medicine, 24*, 183-203.

Brook, J. S., Whiteman, M., Gordon, A. S., & Cohen, P. (1989). Changes in drug involvement: A longitudinal study of childhood and adolescent determinants. *Psychological Reports, 65*, 707-726.

Brown, G. W. (2002). Social roles context and evolution in the origins of depression. *Journal of Health and Social Behavior, 43,* 255-276.

Buckner, J. C., Mezzacappa, E., & Beardslee, W. R. (2003). Characteristics of resilient youths living in poverty: The role of self-regulatory processes. *Development and Psychopathology, 15,* 139-162.

Burns, N., & Grove, S. K. (2005). *The practice of nursing research: Conduct, critique, and utilization* (5th ed.). St. Louis, MO: Elsevier Saunders.

Byrne, D. G., & Mazanov, J. (2001). Self-esteem, stress, and cigarette smoking in adolescents. *Stress Health, 17,* 105-110.

Castle, D. J., Kulkarni, J., & Abel, K. M. (Eds.). (2006). *Mood and anxiety disorders in women.* New York, NY: Cambridge University Press.

Cardella, L. A., & Friedler, M. (2004). The relationship between religious coping and psychological distress in parents of children with cancer. *Journal of Psychosocial Oncology, 22*(1), 19-37.

Caspi, A., & Silva, P. A. (1995). Temperamental qualities at age three predict personality traits in young adulthood: Longitudinal evidence from a birth cohort. *Child Development, 66,* 486-498.

Cauce, A. M., Stewart, A., Rodriguez, M. D., Cochran, B., & Ginzler, J. (2003). Overcoming the odds? Adolescent development in the context of urban poverty. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 343-363). New York, NY: Cambridge University Press.

Cicchetti, D., & Rogosch, F. A. (2002). A developmental psychopathology perspective on adolescence. *Journal of Consulting and Clinical Psychology, 70,* 6-20.

227

Chiu, L., Emblen, J. D., Van Hofwegen, L., Sawatzky, R., & Meyerhoff, H. (2004). An

integrative review of the concept of spirituality in the health sciences. *Western*

Journal of Nursing Research, 26(4), 405-426.

Civic, D. L., & Holt, V. L. (2000). Maternal depressive symptoms and child behavior

problems in a nationally representative normal birth weight sample. *Maternal and*

Child Health Journal, 4, 215-221.

Cole, J. D., & Dodge, K. A. (1998). Aggression and antisocial behavior. In W. Damon &

N. Eisenberg (Eds.), *Handbook of child psychology: Social, emotional, and*

personality development (5th ed., pp. 779-862). New York, NY: Wiley.

Conrad, M., & Hammen, C. (1993). Protective and resource factors in high and low risk

children: A comparison of children with unipolar, bipolar, medically ill, and normal

mothers. *Development and Psychopathology, 5,* 593-607.

Cooper, P. J., & Murray, L. (1998). Post-natal depression. *British Medical Journal, 316,*

1884-1886.

Costello, E. J., Egger, H., & Angold, A. (2005). Ten year research update review: The

epidemiology of child and adolescent psychiatric disorders: Methods and public

health burden. *Journal of the American Academy of Child and Adolescent Psychiatry,*

44, 972-986.

Cougle, J., Reardon, D. C., & Coleman, P. K. (2003). Depression associated with

abortion and childbirth: A long-term analysis of the National Longitudinal Survey of

Youth (NLSY) cohort. *Medical Science Monitor: International Medical Journal of*

Experimental and Clinical Research, 9(4), 105-112.

Davies, P. T., & Windle, M. (2001). Interparental discord and adolescent adjustment trajectories: The potentiating and protective role of intrapersonal attributes. *Child Development, 72*, 1163-1178.

D'Imperio, R. L., Dubow, E. F., & Ippolito, M. F. (2000). Resilient and stress-affected adolescents in an urban setting. *Journal of Clinical Psychology, 29*, 129-142.

Diener, E., Emmons, R. A, Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *The Journal of Personality Assessment, 49*, 71-75.

Diener, E., Suh, E., & Oishi, S. (1997). Recent findings on subjective well-being. *Indian Journal of Clinical Psychology, 24*, 25-41.

Dobratz, M. C. (2002). The pattern of the becoming self in death and dying. *Nursing Science Quarterly, 15*(2), 137-142.

Dodge, K. A., Pettit, G. S., & Bates, J. E. (1994). Socialization and mediators of the relation between socioeconomic status and child conduct problems. *Child Development, 65*, 649-665.

Dornbusch, S. M., Erickson, K. G., Laird, J., & Wong, C. A. (2001). The relation of family and school attachment to adolescent deviance in diverse groups and communities. *Journal of Adolescent Research, 16*, 396-422.

Dubow, E. F., Edwards, S., & Ippolito, M. F. (1997). Life stressors, neighborhood disadvantage, and resources: A focus on inner-city children's adjustment. Journal of *Clinical Child Psychology, 26*, 130-144.

Dugan, C. F. (1997). Course and outcome of depression. In A. Honig & H. M. Van Praag (Eds.), *Depression: Neurobiological, psychological, and therapeutic advances* (pp.31-40). Chichester, UK: Wiley.

Duncan, G. J., Brooks-Gunn, J., & Klebanov, P. K. (1994). Economic deprivation and

early childhood development. *Child Development, 65*(2), 296-318.

Dyer, J. G., & McGuinness, T. M. (1996). Resilience: Analysis of the concept. *Archives

of Psychiatric Nursing, 10*, 276-282.

Eberhard-Gran, M., Eskild, A., Tambs, K., Schei, B., & Opjordsmoen, S. (2001). The

Edinburgh postnatal depression scale: Validation in a Norwegian community sample.

Nordic Journal of Psychiatry, 55, 113-117.

Edari, R., & McManus, P. (1998). Risk and resiliency factors for violence. *Pediatric

Clinics of North America, 45*, 293-305.

Ennis, N. E., Hobfoll, S. E., & Schroder, K. E. E. (2000). Money doesn't talk, it swears:

How economic stress and resistance resources impact inner-city women's depressive

mood. *American Journal of Community Psychology, 28*, 149-173.

Evans, L., Strauss, L., Herndon, J., Parker, W., Bowens, S., & Zane, S. (2003). Abortion

surveillance --- United States, 2000. *Surveillance Summaries Morbidity and Mortality

Weekly Report, 52* (No, SS-12).

Everall, R. D., Altrows, K. J., & Paulson, B. L. (2006). Creating a future: A study of

resilience in suicidal female adolescents. *Journal of Counseling and Development,

84*(4), 461-470.

Facts on Induced Abortion Worldwide. (2009, October). The Alan Guttmacher Institute

(AGI). Retrieved July 13, 2010, from http://www.guttmacher.org/pubs/fb_IAW.html.

Farmer, E. (1995). Extremity of externalizing behavior and young adult outcomes.

Journal of Child Psychology and Psychiatry, 36, 617-632.

Ferrell, B. R., & Coyle, N. (2008). The nature of suffering and the goals of nursing. *Oncology Nursing Forum, 35*(2), 241-247.

Finer, L. B., & Henshaw, S. K. (2006). Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Perspectives on Sexual and Reproductive Health, 38*, 90-96.

Fisher, P. A., & Fagot, B. I. (1993). Negative discipline in families: A multidimensional risk model. *Journal of Family Psychology, 7*, 250-254.

Fleming, C. B., Kim, H., Harachi, T. W., & Catalano, R. F. (2002). Family processes for children in early elementary school as predictors of smoking initiation. *Journal of Adolescent Health, 30*, 184-189.

Flynn, R., Ghazal, H., Legault, L., Vandermeulen, G., & Petrick, S. (2004). Use of population measures and norms to identify resilient outcomes in young people in care: An exploratory study.

Formoso, D., Gonzales, N. A., & Aiken, L. S. (2000). Family conflict and children's internalizing and externalizing behavior: Protective factors. *American Journal of Community Psychology, 28*, 175-199.

Foster, J. D., Kupermine, G. P., & Price, A. W. (2004). Gender differences in posttraumatic stress and related symptoms among inner-city minority youth exposed to community violence. *Journal of Youth and Adolescence, 33*(1), 59-69.

Fowles, D. C. (2001). Biological variables in psychopathology: A psychobiological perspective. In P. B. Sutker & H. E. Adams (Eds.), *Comprehensive handbook of psychopathology* (3rd ed., pp. 85-104). New York, NY: Kluwer Academic/Plenum Press.

Fraser, M. W., Richman, J. M., & Galinsky, M. J. (1999). Risk, protection, and resilience: Toward a conceptual framework for social work practice. *Social Work Research, 23*(3), 129-208.

Fraser, M. W., Kirby, L. D., & Smokowski, P. R. (2004). Risk and resilience in childhood. In M. W. Fraser (Ed.), *Risk and resilience in childhood: An ecological perspective* (2nd ed.) (pp. 13-66). Washington, DC: National Association of Social Workers.

Fergus, S., & Zimmerman, M. A. (2005). Adolescent resilience: A framework for understanding health development in the face of risk. *Annual Review of Public Health, 26,* 399-419.

Fergusson, D. M., Horwood, L. J., & Ridder, E. M. (2006). Abortion in young women and subsequent mental health. *Journal of Child Psychology and Psychiatry and Allied Sciences, 47*(1), 16-24.

Fergusson, D. M., & Lynskey, M. T. (1996). Adolescent resiliency to family adversity. *Journal of Child Psychology and Psychiatry, 37,* 281-292.

Formoso, D., Gonzales, N. A., & Aiken, L. S. (2000). Family conflict and children's internalizing and externalizing behavior: Protective factors. *American Journal of Community Psychology, 28,* 175-199.

Gall, T. L., Charbonneau, C., Clarke, N. H., Grant K., Joseph, A., & Shouldice, L. (2005). Understanding the nature and role of spirituality in relation to coping and health: A conceptual framework. *Canadian Psychology, 46*(2), 88-104.

Garmezy, N. (1993). Children in poverty: Resilience despite risk. *Psychiatry, 56,* 127-136.

Garmezy, N. (1991). Resilience in children's adaptation to negative life events and stressed environments. *Pediatric Annals, 20*(9), 459-466.

Garmezy, N., Masten, A. S., & Tellegen, A. (1984). The study of stress and competence in children: A building block for developmental psychopathology. *Child Development, 55,* 97-111.

Garrison, M. E., Marks, L. D., Lawrence, F. C., & Braun, B. (2004). Religious beliefs, faith community involvement and depression: A study of rural, low-income mothers. *Women and Health, 40*(3), 51-62.

Gater, R., Tansella, M., Korten, A., Tiemens, B. G., Maureas, G., & Olatawura, M. O. (1998). Sex differences in the prevalence and detection of depressive and anxiety disorders in general health care settings: Report from the World Health Organization Collaborative Study on psychological problems. *Archives of General Psychiatry, 55,* 405-413.

Gillespie, B. M., Chaboyer, W., & Willis, M. (2007). Development of a theoretically derived models of resilience through concept analysis. *Contemporary Nurse, 25,* 124-135.

Gipson, J. D., Koenig, M. A., & Hindin, M. J. (2008). The effects of unintended pregnancy on infant, child, and parental health: A review of the literature. *Studies in Family Planning, 39*(1), 18-38.

Glantz, M. D., & Sloboda, Z. (1999). Analysis and reconceptualization of resilience. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp.109-128), New York, NY: Kluwer Plenum.

Greden, J. F. (2001). The burden of disease for treatment-resistant depression. *Journal of Clinical Psychiatry, 62*, 26-31.

Greenberger, E., Chen, C., Tally, S. R., Dong, Q. (2000). Family, peer, and individual correlates of depressive symptomatology among U.S. and Chinese adolescents. *Journal of Consulting and Clinical Psychology, 68*, 209-219.

Griffin, K. W., Scheier, L. M., Botvin, G. J., Diaz, T., & Miller, N. (1999). Interpersonal aggression in urban minority youth: Mediators of perceived neighborhood, peer, and parental influences. *Journal of Community Psychology, 27*, 281-298.

Grotberg, E. H. (2003). What is resilience? How do you promote it? How do you use it? In E. H. Grotberg (Ed.), *Resilience for today: Gaining strength from adversity* (pp. 1-29). Westport, CT: Praeger.

Gutman, L. M., Sameroff, A. J., & Eccles, J. S. (2002). The academic achievement of African American students during early adolescence: An examination of multiple risks, promotive, and protective factors. *American Journal of Community Psychology, 30*, 367-399.

Harris, L. M., Cumming, S. R., & Campbell, A. J. (2006). Stress and psychological well-being among allied health professionals. *Journal of Allied Health, 35*(4), 198-207.

Healthy People 2020. (2009, November 20). U.S Department of Health and Human Services. Retrieved July 13, 2010, from http://www.healthypeople.gov/hp2020/default.asp.

Heflin, C. M., Siefert, K., & Williams, D. R. (2005). Food insufficiency and mental health: Findings from a three-year panel of welfare recipients. *Social Science & Medicine, 61*, 1971-1982.

Henshaw, S. K., (1998). Unintended pregnancy in the United States. *Family Planning Perspectives, 30*(1), 24-29.

Hinshaw, S. P. (1992). Externalizing behavior problems and academic underachievement in childhood and adolescence: Causal relationships and underlying mechanisms. *Psychological Bulletin, 111*(3), 387-412.

Hobfoll, S. E., Johnson, R. J., Ennis, N., & Jackson, A. P. (2003). Resource loss, resource gain, and emotional outcomes among inner-city women. *Journal of Personality and Social Psychology, 84*, 632-643.

Hollister-Wagner, G. H., Foshee, V. A., & Jackson, C. (2001). Adolescent aggression: Models of resiliency. *Journal of Applied Social Psychology, 31*, 445-466.

Huston, A. C., McLoyd, V. C., & Coll, C. G. (1994). Introduction: Children and poverty: Issues in contemporary research. *Child Development, 65*(2), 275-282.

Hymel, S., Rubin, K. H., Rowden, L., & LeMare, L. (1990). Children's peer relationships: Longitudinal prediction of internalizing and externalizing problems from middle to late childhood. *Child Development, 61*(6), 2004-2021.

Illsey, R., & Hall, M. (1976). Psychological aspects of abortion: A review of issues and needed research. *Bull World Health Organization, 53*, 83-106.

Jessor, R., Van Den Bos, J., Vanderryn, J., Costa, F. M., & Turbin, M. S. (1995). Protective factors in adolescent problem behavior: Moderator effects and development change. *Developmental Psychology, 31*, 923-933.

Johnson, B., & Christensen, L. (2004). *Educational research: Quantitative, qualitative, and mixed approaches* (2nd ed.). New York, NY: Pearson Education, Inc.

Khalil, A. H., Rabie, M. A., Abd-El-Aziz, M. F., Abdou, T. A., El-Rasheed, A. H., & Sabry, W. M. (2010). Clinical characteristics of depression among adolescent females: A cross-sectional study. *Child and Adolescent Psychiatry and Mental Health, 4,* 26-32.

Kaplan, H. B. (1999). Toward an understanding of resilience: A critical review of definitions and models. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp.17-83), New York, NY: Kluwer Plenum.

Kaplan, H. B. (2005). Understanding the concept of resilience. In R.B. Brooks & S. Goldstein (Eds.), *Handbook of resilience in children* (pp. 39-47). New York, NY: Plenum.

Kelly, R., Zatzick, D., & Anders, T. (2001). The detection and treatment of psychiatric disorders and substance use among pregnant women cared for in obstetrics. *American Journal of Psychiatry, 158,* 213-219.

Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., Huges, M., Eshelman, S. Wittchen, H. U., & Kendler, K. S. (1994). Lifetime and 12-month prevalence of DSM-III-R psychiatric disorders in the United States. *Archives of General Psychiatry, 51,* 8-9.

Kim-Cohen, J., Moffitt, T. E., Caspi, A., & Taylor, A. (2004). Genetic and environment processes in young children's resilience and vulnerability to socioeconomic deprivation. *Child Development, 75,* 651-668.

King, R. A., Schwab-Stone, M., & Flisher, A. J. (2001). Psychosocial and risk behavior correlates of youth suicide attempts and suicide ideation. *Journal of the American Academy of Child and Adolescent Psychiatry, 40,* 837-846.

Knox, M., King, C., Hanna, G. L., Logan, D., & Ghaziuddin, N. (2000). Aggressive behavior in clinically depressed adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*, 611-618.

Koenig, H. G. (2000). Religion, spirituality, and medicine: Application to clinical practice. *Journal of the American Medical Association, 284*(13), 1780.

Koenig, H., McCullough, M., and Larson, D. E. (2001). *Handbook of religion and health.* New York, NY: Oxford University Press.

Kuehner, C. Gender differences in unipolar depression: An update of epidemiological findings and possible explanation. *Acta Psychiatrica Scandinavica, 108*(3), 163-174.

Kumpfer, K. L. (1999). Factors and process contributing to resilience: The resilience framework. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptation* (pp. 179-224). New York, NY: Kluwer Plenum.

Kumpfer, K. L., & Bluth, B. (2004). Parent/child transactional processes predictive of resilience or vulnerability to substance abuse disorders. *Substance Use and Misuse, 39*, 671-698.

Kuroki, L. M., Allsworth, J. E., Redding, C. A., Blume, J. D., & Peipert, J. F. (2008). Is a previous unplanned pregnancy a risk factor for a subsequent unplanned pregnancy? *American Journal of Obstetrics and Gynecology, 199*(5), 5-17.

Lammers, C., Ireland, M., Resnick, M., & Blum, R. (2000). Influences on adolescents' decision to postpone onset of sexual intercourse: A survival analysis of virginity among youths aged 13 to 18 years. *Journal of Adolescent Health, 26*, 42-48.

Lavigne, J. V., & Faier-Routman, J. (1992). Psychological adjustment to pediatric

physical disorders: A meta-analytic review. *Journal of Pediatric Psychology,17*(2),

133-157.

Leadbeater, B. J., & Bishop, S. J. (1994). Predictors of behavior problems in preschool

children of inner-city Afro-American and Puerto Rican adolescent mothers. *Child

Development, 65*(2), 638-648.

Leadbeater, B. J., Kupermine, G. P., Blatt, S. J., & Hertzog, C. (1999). A multivariate

model of gender differences in adolescents internalizing and externalizing problems.

Development and Psychopathology, 35, 1268-1282.

Lifflander, A., Gaydos, L. M., & Hogue, C. J. (2007). Circumstances of pregnancy: Low

income women in Georgia describe the difference between planned and unplanned

pregnancies. *Maternal and Child Health, 11*, 81-89.

Lin, K. K., Sandler, I. N., Ayers, T. S., Wolchik, S. A., & Luecken, L. J. (2004).

Resilience in parentally bereaved children and adolescents seeking preventive

services. *Journal of Clinical Child and Adolescent Psychology, 33*, 673-683.

Lloyd-Richardson, E. E., Papandonatos, G., Kazura, A., Stanton, C., & Niaura, R. (2002).

Differentiating stages of smoking intensity among adolescents: Stage-specific

psychological and social influences. *Journal of Consulting and Clinical Psychology,

70*, 998-1009.

Lonnqvist, J. K. (2000). Psychiatric aspects of suicidal behavior: Depression. In K.

Hawton & K. Van Heeringen (Eds.), *The international handbook of suicide and

attempted suicide* (pp.107-120). Chicherster, UK: Wiley.

Lopez, A. D., & Mathers, C. D. (2006). Measuring the global burden of disease and

    epidemiological transitions: 2002 – 2030. *Annals of Tropical Medicine and*

    Parasitology, 100, 481-499.

Luthar, S. (1991). Vulnerability and resilience: A study of high-risk adolescents. *Child*

    Development, 62(3), 600-616.

Luthar, S. S., Cicchetti, D., & Becker, B (2000). The construct of resilience: A critical

    evaluation and guidelines for future work. *Child Development, 71*, 543-562.

Luthar, S. S., & Sexton, C. C. (2007). Maternal drug abuse versus maternal depression:

    Vulnerability and resilience among school-age and adolescent offspring.

    Development and Psychopathology, 19, 205-225.

Magnani, R. J., Karim, A. M., Weiss, L. A., Bond, K. C., Lemba, M., & Morgan, G. T.

    (2002). Reproductive health risk and protective factors among youth in Lusaka,

    Zambia. *Journal of Adolescent Health, 30*, 76-86.

Malow, R. M., Devieux, J. G., Jennings, T., Lucenko, B. A., & Kalichman, S. C. (2001).

    Substance-abusing adolescents at varying levels of HIV risk: Psychosocial

    characteristics, drug use, and sexual behavior. *Journal of Substance Abuse, 13*, 103-

    117.

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American*

    Psychologist, 56, 227-238.

Masten, A. S., & Garmezy, N. (1985). Risk, vulnerability, and protective factors in

    developmental psychopathology. In B. B. Lahey & A. E. Kazdin (Eds.), *Advances in*

    clinical child psychology (Vol. 8, pp. 1-52). New York, NY: Plenum Press.

Masten, A. S., Garmezy, N., Tellegen, A., Pellegrini, D. S., Larkin, K., & Larsen, A. (1988). Competence and stress in school children: The moderating effects of individual and family qualities. *Journal of Child Psychology and Psychiatry, 29*, 745-764.

Masten, A. S., & Powell, J. L. (2003). A resilience framework for research, policy, and practice. In S. S. Luthar (Ed.), *Resilience and vulnerability: Adaptation in the context of childhood adversities* (pp. 1-25). New York, NY: Cambridge University Press.

McCloskey, L. A., Figueredo, A. J., & Koss, M. P. (1995). The effects of systemic family violence on children's mental health. *Child Development, 66*, 1239-1261.

McFadyen-Ketchum, S. A., Bates, J. E., Dodge, K. A., & Pettit, G. S. (1996). Patterns of change in early child aggressive-disruptive behavior: Gender differences in predictors from early coercive and affectionate mother-child interactions. *Child Development, 67*, 2417-2433.

McLeod, J. D., & Kaiser, K. (2004). Childhood emotional and behavioral problems and educational attainment. *American Journal of Sociological Review, 69*, 636-658.

Miller, L. S., Wasserman, G. A., Neugebauer, R., Gorman-Smith, D., & Kamboukos, D. (1999). Witnessed community violence and antisocial behavior in high-risk, urban boys. *Journal of Clinical Child Psychology, 28*, 2-11.

Miles, D. R., & Carey, G. (1997). Genetic and environmental architecture of human aggression. *Journal of Personality and Social Psychology, 72*, 207-217.

Mofidi, M., DeVellis, R. F., DeVellis, B. M., Blazer, D. G., Panter, A. T., & Jordan, J. M. (2007). The relationship between spirituality and depressive symptoms: Testing psychosocial mechanisms. *Journal of Nervous and Mental Disease, 195*(8), 681-688.

Morse, J. M., & Doberneck, B. (1995). Delineating the concept of hope. *Image Journal of Nursing Scholarship, 27*, 277-285.

Moss, D. (2002). The circle of the soul: The role of spirituality in health care. *Applied Psychophysiology and Biofeedback, 27*(4), 283-292.

Munhall, P. L. (2001). Ethical consideration in qualitative research. In P. L. Munhall (Ed.), *Nursing research: A qualitative perspective* (3rd ed., pp. 537-549). Sudbury, MA: Jones & Bartlett.

Murray, C., & Lopez, A. (1996). *The global burden of disease: A comprehensive assessment of mortality and disability from disease, injuries, and risk factors in 1990 and projected in 2020.* Boston, MA: Harvard School of Public Health, WHO, and World Bank.

National Institute of Nursing Research. (2004). NINR Focus: Women's health. Bethesda, MD: Author. Retrieved June 22, 2010, from http://www.ninr.nih.gov/NewsAndInformation/NINRPublications/

Naglieri, J. A., & Lebuffe, P. A. (2005). Measuring resilience in children. From theory to practice. In R. B. Brooks & S. Godstein (Eds.), *Handbook of resilience in children* (pp. 107-121). New York, NY: Plenum.

Nauert, R. (2006). Male gender bias in Psychology Research continues. Retrieved on August 21, 2010, http://psychcentral.com/news/2006/12/29/ male-gender-bias-in-psychology-research-continues.

Needles, D. J., & Abramson, L. Y. (1990). Positive life events, attributional style, and hopelessness: Testing a model of recovery from depression. *Journal of Abnormal Psychology, 99*, 156-165.

Nussbaum, G. B. (2003). Spirituality in critical care. Patient comfort and satisfaction. *Critical Care Nurse, 26*(3), 214-220.

O'Connell, M. E., Boat, T., & Warner, K. (2009). *Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities.* Washington, DC: National Academies Press.

OECD Health Data 2010. (2010, June). Organization for Economic Co-operation and Development (OECD). Retrieved on July 13, 2010, from http://www.oecd.org/els/health/data.

Olsson, C. A., Bond, L., Burns, J. M., Vella-Brodrick, D. A., & Sawyer, S. M. (2003). Adolescent resilience: A concept analysis. *Journal of Adolescence, 26*, 1-11.

Olsson, G. I., Nordstrom, M. L., Arinell, H., & von Knorring, A. L. (1999). Adolescent depression: Social network and family climate – A case study. *Journal of Child Psychology and Psychiatry, 40*, 227-237.

Pargament, K. (1997). *The psychology of religion and coping: Theory, research, and practice.* New York, NY: Gilford Press.

Pargament, K., Koenig, H., & Tarakeshwar, N. (2004). Religious coping methods as predictors of psychological, physical, and spiritual outcomes among medically ill elderly patients: A two-year longitudinal study. *Journal of Health Psychology, 9*, 713-730.

Pavot, W., & Diener, E. (1993). Review of the Satisfaction With Life Scale. *Psychological Assessment, 5*, 164-172.

Pavot, W., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction With Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment, 57,* 149-161.

Pazol, K., Gamble, S. B., Parker, W. Y., Cook, D. A., Zane, S. B., & Hamdan, S. (2009). Abortion surveillance—United States, 2006. *Morbidity Mortality Weekly Report, 11*(58), 1-35.

Pigott, T. A. (1999). Gender differences in the epidemiology and treatment of anxiety disorders. *Journal of Clinical Psychiatry, 60,* 4-15.

Piko, B. (2000). Perceived social support from parents and peers: Which is the stronger predictor of adolescent substance abuse? *Substance Use and Misuse, 35,* 617-630.

Polit, D. F., & Beck, C. T. (2004). *Nursing research: Principles and methods* (7th ed.). New York, NY: Lippincott Williams and Wilkins.

Pregnancy risk assessment monitoring system (PRAMS) CPONDER. (2009, November 18). Centers for Disease Control and Prevention. Retrieved February 8, 2011, from http://www.cdc.gov/PRAMS/CPONDER.htm

Puchalski, C. (2004). Spirituality in health: The role of spirituality in critical care. *Critical Care Clinics, 20,* 487-504.

Richardson, G. E. (2002). The metatheory of resilience and resiliency. *Journal of Clinical Psychology, 58,* 307-321.

Rosenthal, S., Feiring, C., & Taska, L. (2003). Emotional support and adjustment over a year's time following sexual abuse discovery. *Child Abuse and Neglect,27,* 641-661.

Rutter, M. (1985). Resilience in the face of adversity: Protective factors and resistance to psychiatric disorders. *British Journal of Psychiatry, 147,* 598-611.

Rutter, M. (1990). Psychological resilience and protective mechanism. In R. J. Masten &
A. Cichetti (Eds.), *Risk and protective factors in the development of psychopathology*
(pp. 181-214). New York, NY: Cambridge University Press.

Saleebey, D. (1996). The strengths perspective in social work practice: Extensions and
cautions. *Social Work, 41*, 296-305.

Sameroff, A., Gutman, L. M., & Peck, S. C. (2003). Adaptation among youth facing
multiple risks: Prospective research findings. In S. S. Luthar (Ed.), *Resilience and
vulnerability: Adaptation in the context of childhood adversities* (pp. 364-391). New
York, NY: Cambridge University Press.

Santelli, J., Rochat, R., Hartfield-Timajchy, K., Gilbert, B. C., Curtis, K., Cabral, R.,
Hirsch, J. S., & Schieve, L. (2003). The measurement and meaning of unintended
pregnancy. *Perspectives on Sexual and Reproductive Health, 35*, 94-101.

Santelli, J. S., Kaiser, J., Hirsch, L., Radosh, A. Simkin, L., Middlestadt, S. (2004).
Initiation of sexual intercourse among middle school adolescents: The influence of
psychosocial factors. *Journal of Adolescent Health, 34*, 200-208.

Sartorius, N. (2001). The economic and social burden of depression. *Journal of
Clinical Psychiatry, 66*(15), 8-11.

Scheier, L. M., Botvin, G. J., & Miller, N. L. (1999). Life events, neighborhood stress,
psychosocial functioning, and alcohol abuse among urban minority youth. *Journal of
Child and Adolescent Substance Abuse, 9*, 19-50.

Schmiege, S., & Russo, N. F. (2005). Depression and unwanted first pregnancy:
Longitudinal cohort study. *British Medical Journal, 3*(331), 1303-1305.

Shaw, J. A. (2005). A pathway to spirituality. *Psychiatry, 68*(4), 350-362.

Siefert, K., Bowman, P., Heflin, C. M., Danziger, S., & Williams, D. R. (2000). Social and environmental predictors of maternal depression in current and recent welfare recipients. *American Journal of Orthopsychiatry, 70,* 510-522.

Siefert, K., Heflin, C. M., Corcoran, M., & Williams, D. R. (2004). Food insufficiency and physical and mental health in a longitudinal survey of welfare recipients. *Journal of Health and Social Behavior, 45,* 171-186.

Simon, G. E. (2003). Social and economic burden of mood disorders. *Biology of Psychiatry, 54,* 208-215.

Shear, M. K. (1997). Anxiety disorders in women: gender related modulation of neurobiology and behavior. *Seminars in Reproductive Endocrinology, 15,* 69-76.

Stanton, B., Li, X., Pack, R., Cottrell, L., Harris, C., & Burns, J. M. (2002). Longitudinal influence of perceptions of peer and parental factors on African-American adolescent risk involvement. *Journal of Urban Health, 79,* 536-548.

Steele, H., & Steele, M. (1994). Intergenerational patterns in attachment. In K. Bartholomew & D. Perlman (Eds.), *Attachment in adulthood: Advances in personal relationships (Vol. 5).* London: Jessica Kingsley.

Steinbrook, R. (2004). Waiting for plan b – the FDA and nonprescription use of emergency contraception. *The New England Journal of Medicine, 350*(23), 2327-2329.

Stewart, M., Reid, G., & Mangham, C. (1997). Fostering children's resilience. *Journal of Pediatric Nursing, 12,* 21-31.

Shumow, L., Vandell, D. L., & Posner, J. (1999). Risk and resilience in the urban neighborhood: Predictors of academic performance among low-income elementary school children. *Merrill-Palmer Q. J. Developmental Psychology*, 45, 309-331.

Tak, Y. R., & McCubbin, M. (2002). Family stress, perceived social support, and coping following the diagnosis of a child's congenital heart disease. *Journal of Advanced Nursing, 39*(2), 190-198.

Tarakeshwar, N., Vanderwerker, L. C., Paulk, E., Pearce, M. J., Kasl, S. V., & Prigerson, H. G. (2006). Religious coping is associated with the quality of life of patients with advanced cancer. *Journal of Palliative Medicine, 9*(3), 646-657.

Tarter, R. E., & Vanyukov, M. (1999). Re-visiting the validity of the construct of resilience. In M. D. Glantz & J. L. Johnson (Eds.), *Resilience and development: Positive life adaptations* (pp.85-100), New York, NY: Kluwer Plenum.

Taylor, R. J., Chatters, L. M., & Levin, J. (2004). *Religion in the lives of African-Americans: Social, psychological, and health perspectives*. Thousand Oaks, CA: Sage.

Taylor, J., Iacono, W. G., & McGue, M. (2000). Evidence for a genetic etiology of early-onset delinquency. *Journal of Abnormal Psychology, 109*, 634-643.

Tedeschi, R. G., & Kilmer, R. P. (2005). Assessing strengths, resilience, and growth to guide clinical interventions. *Professional Psychology: Research and Practice, 36*, 230-237.

Thorp, J. M., Hartman, K. E., & Shadigian, E. (2003). Long-term and psychological health consequences of induced abortions: Review of evidence. *Obstetrical and Gynecological Survey, 58*(1), 67-79.

Trussell, J., Ellertson, C., Stewart, F., Raymond, E. G., & Shochet, T. (2004). The role of emergency contraception. *American Journal of Obstetrics and Gynecology, 190*(4), 30-38.

Twemlow, S. W., Fonagy, P., & Sacco, F. C. (2001). An innovative psychodynamically influenced approach to reduce school violence. *Journal of the American Academy of Child and Adolescent Psychiatry, 40,* 377-379.

Unintended pregnancy. (2010, April 30). Centers for Disease Control and Prevention. Retrieved February 8, 2011, from http://www.cdc.gov/reproductivehealth/unintendedpregnancy/index.htm

U.S. Department of Health and Human Services. (2000). *Healthy people 2010* (2nd ed.). Washington, DC: Government Printing Office.

Ustun, T. B., Ayuso-Mateos, J. L., Chatterji, S., Mathers, C., & Murray, C. J. L. (2004). Global burden of depressive disorders in the year 2000. *British Journal of Psychiatry, 184,* 386-392.

Valle, M. F., Huebner, E. S., & Suldo, S. M. (2006). An analysis of hope as a psychological strength. *Journal of School Psychology, 44,* 393-406.

Vega-Lopez, O., Blanco, C., Keyes, K., Olfson, M., Grant, B. F., & Hasin, D. S. (2008). Psychiatric disorders in pregnant and postpartum women in the United States. *Archives of General Psychiatry, 65,* 805-815.

Veijola, J., Jokelainen, J., Laksy, K., Kantojarvi, L., Kokkonen, P., & Jarvelin, M. R. (2003). The Hopkins symptom checklist-25 in screening DSM-III R axis I-disorders. *Nordic Journal of Psychiatry, 57,* 119-123.

Wade, T. J., Cairney, J., & Pevalin, D. J. (2002). Emergence of gender differences in depression during adolescence: National panel results from three countries. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(2), 190-198.

Wagnild, G., & Young, H. (1993). Development and psychometric evaluation of the Resilience Scale. *Journal of Nursing Measurement, 1*(2), 165-178.

Werner, E. E. (1995). Resilience in development. *Current Directions in Psychological Science, 4*, 81-85.

Werner, E. E. (1989). High-risk children in young adulthood: A longitudinal study from birth to 32 years. *American Journal of Orthopsychiatry, 59*, 72-81.

Werner, E. E., & Smith, R. S. (1992). *Overcoming the odds: High risk children from birth to adulthood.* New York, NY: Cornell University Press.

Westhoff, C. Emergency contraception. *The New England Journal Medicine, 349*(19), 1830-1835.

Williams, S., Anderson, J., McGee, R., & Silva, P. A. (1990). Risk factors for behavioral and emotional disorder in preadolescent children. *Journal of the American Academy of Child and Adolescent Psychiatry, 29*, 413-419.

Williams, D. R. (1997). Race and health: Basic questions, emerging directions. *Annals of Epidemiology, 7*, 322-333.

Wills, T. A., Sandy, J. M., Shinar, O., & Yaeger, A. (1999). Contributions of positive and negative affect to adolescent substance use: Test of a bidimensional model in a longitudinal study. *Psychology of Addictive Behaviors, 13*, 327-338.

Wong, C. A., Eccles, J. S., & Sameroff, A. (2003). The influence of ethnic

discrimination and ethnic identification on African American adolescents' school and

socioemotional adjustment. *Journal of Personality, 71*, 1197-1232.

World Health Organization. (2008). *World health report 2008: Primary health care –*

now more than ever. Geneva, Switzerland: Author.

Yates, T. M., Egeland, B., & Sroufe, L. A. (2003). Rethinking resilience: A

developmental perspective. In S. S. Luthar (Ed.*), Resilience and vulnerability:*

Adaptation in the context of childhood adversities (pp. 243-266). New York, NY:

Cambridge University Press.

Zahn-Waxler, C. (1993). Warrior and worries: Gender and psychopathology.

Development and Psychopathology, 5, 79-89.

Zimmerman, M. A., & Arunkumar, R. (1994). Resilience research: Implications for

schools and policy. *Social Policy Report, 8*, 1-17.

Zimmerman, M. A., Steinman, K. J., & Rowe, K. J. (1998). Violence among urban

African-American adolescents: The protective effects of parental support. In S.

Oskamp and X. B. Arriaga (Eds.), *Research and intervention* (pp. 78-103). Newbury

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