MATERNAL TRAUMA AND BODY IMAGE
ATTITUDES DURING PREGNANCY

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MATERNAL TRAUMA AND BODY IMAGE
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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE</td>
<td>6</td>
</tr>
<tr>
<td>General System Theory</td>
<td>6</td>
</tr>
<tr>
<td>Body Image</td>
<td>8</td>
</tr>
<tr>
<td>Body Image and Pregnancy</td>
<td>10</td>
</tr>
<tr>
<td>Trauma</td>
<td>19</td>
</tr>
<tr>
<td>Trauma and Body Image</td>
<td>21</td>
</tr>
<tr>
<td>Trauma and Pregnancy</td>
<td>22</td>
</tr>
<tr>
<td>Conclusion</td>
<td>35</td>
</tr>
<tr>
<td>Research Questions</td>
<td>26</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>26</td>
</tr>
<tr>
<td>III. METHODOLOGY</td>
<td>27</td>
</tr>
<tr>
<td>IV. FINDINGS</td>
<td>36</td>
</tr>
<tr>
<td>V. CONCLUSION</td>
<td>42</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>51</td>
</tr>
<tr>
<td>APPENDICES</td>
<td>59</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Descriptive statistics of reliability of study measures and subscales</td>
<td>36</td>
</tr>
<tr>
<td>2. Correlations of study measures</td>
<td>38</td>
</tr>
<tr>
<td>3. Crosstabular statistics for groups and self report of previous pregnancies</td>
<td>39</td>
</tr>
<tr>
<td>4. Overall mean scores for variables</td>
<td>41</td>
</tr>
<tr>
<td>Figure</td>
<td>Page</td>
</tr>
<tr>
<td>--------</td>
<td>------</td>
</tr>
<tr>
<td>1. Proposed interaction of variables</td>
<td>5</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Pregnancy is a unique event in a woman’s life. While pregnancy can be an exciting and momentous life cycle phase, it is also a period of intense physical change in a woman’s body in a relatively short period of time (Duncombe, Wertheim, Skouteris, Paxton, & Kelly, 2008). Pregnancy has traditionally been viewed from a medical or biologically-based perspective. More recently, research exploring the maternity process has found that experiences during pregnancy have important implications on maternal physical and mental health, fetal development and the couple relationship (Boscaglia, Skouteris, & Wertheim, 2003; DiPietro, Millet, Costigan, Gurewitsch, & Caulfield, 2003). While more recent research regarding the pregnancy experience has begun to adopt a more holistic perspective; the psychosocial influence of the physical changes is not well understood.

One important element of the biopsychosocial perspective is the impact of the physical changes on a woman’s body image during pregnancy. Body image has been referred to as the set of beliefs or attitudes one has about his/her own body (Fox & Yamaguchi, 1997). The physical changes a woman experiences during pregnancy (e.g., change in size, shape, weight) may challenge her attitudes and satisfaction toward her body and, therefore, may have a negative impact on her body image. Previous research examining body image and body dissatisfaction during pregnancy has noted several key
influential factors. Body image prior to pregnancy (Fox & Yamaguchi, 1997), the physical changes and physical symptoms experienced in pregnancy (e.g. nausea, fatigue, swelling of the limbs and minor aches; Boscaglia et al., 2003; Goodwin, Astbury, & McMeeken, 2000), culture (Davies & Wardle, 1994; Fox & Yamaguchi, 1997; Kamysheva, Skouteris, Wertheim, Paxton, & Milgrom, 2008), pre pregnancy beliefs and habits (Rocco et al., 2005), and phase of pregnancy (Davies & Wardle, 1994) are among the specific elements previously identified as key factors impacting body image during pregnancy (Fox & Yamaguchi, 1997). Among the above stated elements that influence body image, research has additionally identified the role of support from a spouse or partner as an important factor influencing a woman’s body image (Pole, Crowther, & Schell, 2004).

Body dissatisfaction during pregnancy may result in changes in eating behaviors. Pregnant women with more body dissatisfaction may engage in detrimental restrictive (i.e. dieting) or excessive (i.e. overeating) eating behaviors resulting in either excessive or inadequate weight gain during pregnancy. Such detrimental eating behaviors have been coupled with both maternal and infant health (Boscaglia et al., 2003). Mothers’ eating behaviors have been associated with inadequate fetal development and low infant birth weight (Boscaglia et al., 2003), poor maternal weight gain (DiPietro et al., 2003; Fox & Yamaguchi, 1997), premature delivery (Boscaglia et al., 2003), higher levels of depression among expectant women (Skouteris, Carr, Wertheim, Paxton, & Duncombe, 2005), delayed development of the child (Boscaglia et al., 2003) and in rare cases infant or maternal death (Boscaglia et al., 2003).
Trauma

Trauma is a significant life event that has been independently associated with both pregnancy and body image. A trauma has been defined as an overpowering experience outside the norm (Breslau, 2002). Although men pose a higher risk to experience or be exposed to a traumatic event, women are twice as likely to develop traumatic symptoms (Mezey, Bacchus, Bewley, & White, 2004). Increased development of traumatic symptoms may pose unique challenges for women during specific life phases, such as pregnancy.

Studies have indicated that the previous experience of a traumatic event, specifically childhood abuse, may negatively influence female body image (Mamun et al., 2007). Subsequently, negative body image may result in disordered eating behaviors such as restricted dieting or purging (Boscaglia et al., 2003). While research has independently observed the influence of previous trauma on body image and the experience of pregnancy, little is known about the possible association among women’s experience of previous trauma and body image during the specific pregnancy period. The possibility of psychological or physical trauma influencing a woman’s perception about her body may have severe consequences on maternal and infant health. However, a direct influence of trauma on body image during pregnancy has yet to be established.

Partner Support

A final element of the discussed biopsychosocial perspective is the experience of the couple relationship during the pregnancy period. Previous research has indicated that although negative body attitudes may detrimentally influence the maternal experience of pregnancy, this influence may be mediated by perceived support from a spouse or partner.
(DiPietro et al., 2003). More specifically, the expectant mother may embrace the physical changes if she feels support and encouragement from a partner or spouse regarding the changes.

**Current Study**

Research exploring the consequences of body image has often been limited to adolescent and eating disorder populations (Davison & McCabe, 2006). Likewise, research on the influence of trauma on body image has frequently been limited to non-pregnant populations (Mamun et al., 2007). Little research exists regarding the impact of previous trauma on body image during the period of pregnancy. Recognizing the impact of current research findings on the link between a woman’s previous trauma and subsequent experience of negative pregnancy outcomes and body dissatisfaction, further research is warranted to help researchers better understand the systemic impact of trauma. Such understanding will aid researchers and clinicians in the necessary steps toward preventing the negative effects of trauma and body dissatisfaction during pregnancy.

The purpose of the present study is to review the influences that previous trauma has on women’s body image during pregnancy. By examining these variables together, this research will provide exploratory information that can contribute to the overall treatment of pregnancy, insuring that proper maternal and infant health are maintained, as well as addressing concerns related to pregnancy and the couple relationship.
Figure 1. Concept map proposing the interaction of variables.
CHAPTER II
REVIEW OF LITERATURE

The following literature review will provide an overview of the areas of research regarding the impact of trauma and partner support on body image during pregnancy. The review will begin with a brief overview of General System Theory as the guiding theoretical framework for the current study (Guberman, 2004). An exploration of the research will then discuss a general overview of body image, with specific attention given to research regarding the influential factors on body image during pregnancy. Trauma as a life event uniquely associated with both pregnancy and body attitudes will then be presented.

**General System Theory**

As previously mentioned, the pregnancy experience is often treated strictly from a medical perspective; the focus is often on the physical health of the mother and child. Little attention is given to the other aspects of the pregnancy period; for example, the effect on the couple relationship, previous life events that may influence the current pregnancy and possible support and relationships that contribute to the overall pregnancy experience. However, general system theory has illustrated the benefits for a more holistic approach to treating relationships, life events, and medicine. Largely developed by the work of Ludwig von Bertalanffy, General System Theory (GST) emphasizes the concept that the whole is greater than the sum of its parts (Guberman, 2004). Von
Bertalanffy developed GST in an attempt to integrate systems thinking and biology (Nichols & Schwartz, 2006). Initially, he explored the biological aspects of the human body, however by expanding and integrating his work into social systems he developed GST (Nichols & Schwartz, 2006). By bridging the gaps between a medical model of treatment and social and psychological forms of treatment, Von Bertalanffy was able to identify the missing aspects of human existence. From a systemic perspective, the individual parts of a system are thought to be best understood in the context of relationships and interactions among the parts (Nichols & Schwartz, 2006). For example, the pregnancy experience can be best understood when breaking it up to observe the interacting elements of the pregnancy; the transition to parenthood and effect on the couple relationship, the development of a fetus into a child, and the maternal experience of her body changing, while also embracing a new meaningful role in her life. GST provides a holistic examination of the dynamic relationship between components of human systems and aids in the development of the biopsychosocial model.

Furthermore, it would make little sense to attempt to understand any biologically based element, such as pregnancy, without also addressing the psychological and social influences on the experience. GST demonstrates the importance of expanding the perspective of the pregnancy period beyond the simple biomedical viewpoint. By adopting a psychosocial perspective, researchers and clinicians are better able to explore and treat the whole person. The biopsychosocial model of pregnancy illustrates a holistic perspective focused on understanding relevant factors at all three levels and the interactions between these factors. Furthermore, this model serves as a guiding theoretical framework for the current study.
Body Image

Secord and Jourard (1953) first introduced the concepts of body image and body satisfaction to research (as cited in Ben-Tovim & Walker, 1991). Within the literature, the terms body image, body satisfaction/dissatisfaction, and body attitudes have been used to describe specific aspects of the relationship one has with her/his body. Body attitudes are the individual attitudes, feelings and perceptions one has about his/her body (Ben-Tovim & Walker, 1991). Specific body attitudes include perceptions or feelings of being overweight or being unhappy with particular parts of the body. The term body image has been referred to as the sum of all attitudes (i.e., feelings, perceptions) that an individual has concerning his/her body (Fox & Yamaguchi, 1997). For the purpose of this paper, the terms body attitudes and body image will be used to delineate between feelings/perceptions and overall body assessment. The terms body satisfaction and body dissatisfaction will be used when referring to positive or negative body image, respectively.

Recent studies regarding body attitudes have discovered that individuals often form attitudes (e.g. likes, dislikes, preferences) about his/her body on feedback from the environment (e.g. culture, community; Palmqvist & Santavirta, 2006; Ricciardelli & McCabe, 2001). Research has specifically found that the media and Western society’s idea of beauty and thinness significantly influence body attitudes and overall body image (Palmqvist & Santavirta, 2006; Ricciardelli & McCabe, 2001). Furthermore, research has identified the role of social support as an influential element on female body image. Specifically, research has found a significant association between perceived negative evaluation by a spouse and body dissatisfaction among middle aged women (Pole et al,
2004). In addition to culture, environment, media, and social/partner support, research has also found connections between poor body image and difficult, stressful, or traumatic life events (Mamun et al., 2007; Mezey et al., 2004).

Research on body image has often been limited to adolescent or eating disorder populations (Ben-Tovim & Walker, 1991; Paxton, Schutz, Wertheim, & Muir, 1999; Pole, Crowther, & Schell, 2004). Early research has identified females, specifically during adolescence, as an at risk population for the development of body dissatisfaction (Eisenberg, Neumark-Sztainer, Story & Perry, 2005). Body dissatisfaction in females has been associated with poorer psychosocial functioning, which may be manifested as low self esteem, depression, anxiety, and/or poor coping behaviors, including eating disorders (Davison & McCabe, 2006; Pole et al., 2004). Body dissatisfaction has additionally been shown to influence peer relationships (Shroff & Thompson, 2006), likelihood of disordered eating behaviors (Eisenberg, Neumark-Sztainer, Story, & Perry, 2005), and overall self esteem (Davison & McCabe, 2006; Rosenberg, Schooler, & Schoenbach, 1989). For example, research has shown adolescent females with poor body image often seek out relationships where dieting or body image are a priority (Paxton, Schutz, Wertheim, & Mur, 1999). Such relationships then increase the likelihood of eating disorders or other unhealthy behaviors (such as smoking or substance use) among female teens (Palmqvist & Santavirta, 2006; Paxton et al., 1999).

Research on body image has extensively explored the relationship between female body dissatisfaction and the development of eating disordered behaviors, such as anorexia and bulimia (Rocco et al., 2005). Eating disordered behaviors, such as anorexia, consists of severe restricted eating and in some cases restricted eating with a purging
behavior. Such behaviors may include, restricted dieting with the abuse of laxatives or restricted dieting and vomiting (Eisenberg et al., 2005). Such disordered eating behaviors have been associated with increased changes in mood, depression, digestive problems, cardiomyopathy, and amenorrhea (Eisenberg et al., 2005). In addition to unhealthy eating behaviors and intense dieting, body dissatisfaction has additionally been associated with cigarette smoking in order to avoid weight gain (Duncombe et al., 2008). While both men and women experience eating disordered behaviors and body dissatisfaction, research has found a higher prevalence among women.

Research suggests that such behaviors are most prevalent during adolescence (Eisenberg et al., 2005), however these behaviors and the consequences associated with them can be detrimental to women of all ages. Given that many young women and adolescents experience body image concerns, it is possible that the physical changes associated with pregnancy may trigger additional insecurities regarding body image (Duncombe et al., 2008). Poor body image leading to behaviors such as disordered eating and cigarette smoking would have important implications in females, especially during the pregnancy period (Baker, Carter, Cohen, & Brownell, 1999; Duncombe et al., 2008). Such implications would include poor fetal development and detriments to maternal physical health (Boscaglia et al., 2003; Duncombe et al., 2008).

**Body Image and Pregnancy**

The unique physical and emotional adjustments of pregnancy can result in changes in body image (Boscaglia et al., 2003; Rocco et al., 2005; Duncombe et al., 2008). Changing weight, shifting body shape, movement of the fetus, pressure on the bladder, constipation, fatigue, swelling, bloating, tenderness of the breasts, and
limitations in flexibility and movement may all play a role in how a woman experiences her body during pregnancy. Some of these physical changes may require modification in previous routines or behaviors, including travel, exercise, sexual activities, and work. These unique changes may have an impact on a woman’s body image. Researchers have identified numerous factors associated with body image during the specific pregnancy period. The physical changes to the body, physical symptoms, amount of physical activity, pre-pregnancy body attitudes, culture, phase of pregnancy, and perceived support of a partner or spouse have all been identified as impacting body image during pregnancy.

Changes in body weight and shape. As previously stated, pregnancy is a special time in a woman’s life in which she is challenged to make unique physical and psychological adaptations. Some of these adaptations are required due to significant overt changes to the body, including weight gain and changes in body shape. While each woman experiences the physical changes in a unique way, the weight gain and physical changes associated with pregnancy have a psychological effect on a woman’s attitude about her body, as well as her attitudes about the experience of the maternity period (Boscaglia et al., 2003).

Studies addressing the physical changes during pregnancy have examined the psychological influences of weight gain during this period. Research has indicated that only one-third of expectant mothers gain weight within the recommended guidelines (DiPietro et al., 2003). The authors hypothesized that a positive pregnancy experience would lend itself to more accepting attitudes about weight gain and the physical changes during pregnancy. Among the sample, 21% permitted one or more weight restricting
behaviors, including not eating before a doctor’s appointment, avoiding the appearance of pregnancy during the early prenatal period and excessively monitoring weight changes month to month (DiPietro et al., 2003). As previously stated, such behaviors have severe consequences on gestational growth and maternal health during and after pregnancy. These consequences may include low birth weight, difficulties during labor and delayed child development (Boscaglia et al., 2003). Furthermore, among the 37% of women in the sample who did gain the recommended amount of weight, there was still a concern of being overweight post partum. Overall, the researchers found that more positive attitudes about the physical changes during pregnancy could prevent weight restricting behaviors, such as dieting. These findings also suggest that a more positive perspective of being pregnant may protect against poor body image and the consequences of body dissatisfaction during pregnancy.

**Physical symptoms.** In addition to the physical changes in weight and shape, the actual physical symptoms that accompany pregnancy have been significantly associated with influencing maternal body image. During the pregnancy period, symptoms associated with gestational growth include general aches and pains, intense fatigue, sore limbs, swollen feet, and nausea. Such symptoms have been associated with feelings of depression, as well as, body dissatisfaction during the pregnancy period (Chou, Lin, Cooney, Walker, & Riggs, 2003; Kamysheva, Skouteris, Wertheim, Paxton, & Milgrom, 2008). In a study of 215 pregnant women who were 15-25 weeks gestation, Kamysheva et al. (2008) studied the influence of sleep quality, actual physical symptoms (e.g., nausea, vomiting, heartburn, and fatigue) and depression on body satisfaction during pregnancy. Results of the study indicated that distressing physical symptoms such as
fatigue and nausea negatively influenced the perception of feeling strong and fit among expectant mothers. These findings parallel the results of previous research that reported associations between low self-esteem and body dissatisfaction in non-pregnant populations (Grubb, Sellers, & Waligorski, 1993; Harter, 1993; Rallis, Skouteris, Wertheim, & Paxton, 2007), pregnant populations (Davies & Wardle, 1994), and post partum female populations (Rallis et al., 2007).

Physical activity. Beyond a woman’s individual experience of the changes in weight and shape during pregnancy, physical activity has been noted as an influential variable on maternal body attitudes during pregnancy. Exercise during pregnancy has been suggested to positively influence maternal body satisfaction by increasing positive maternal body attitudes (Boscaglia et al., 2003; Goodwin et al., 2000).

Goodwin et al. (2000) examined the differences in body satisfaction and psychological well being among a sample of expectant mothers who were exercisers and non-exercisers. The results indicated that body attitudes change during pregnancy. Additionally, Goodwin et al. noted that despite the physical change to their bodies, women who consistently exercised or were physically active retained a more positive body image during pregnancy. However, beyond physical activity, the perception of the changes during pregnancy may be subjective to cultural norms and practices associated with pregnancy and becoming a mother.

Role of culture. Culture has also been noted as a contributing factor in body dissatisfaction among pregnant women (Davies & Wardle, 1994; Fox & Yamaguchi, 1997; Kamysheva et al., 2008). Some researchers have noted that being pregnant seemingly allows women to challenge Western society’s ideal body image, which
generally values thinness. Culturally defined roles of motherhood have been suggested to influence whether women accept their changing body shape during pregnancy (Davies & Wardle, 1994). It is hypothesized that if the role of becoming a mother is highly valued within the culture, a woman may be more accepting of her changing body during her pregnancy.

Davies and Wardle (1994) worked to further examine the role of culture and its influence on weight restricting behaviors, such as dieting. Prior to pregnancy, women often engage in dieting behaviors in order to meet societal expectation of what is considered acceptable and desirable to others. However, consequences can become detrimental if those dieting behaviors are then employed during pregnancy. Davies and Wardle (1994) found that when compared to previous non-dieters, women who had previously dieted showed greater concern regarding body image during pregnancy and were more likely to engage in dieting behaviors during pregnancy.

These findings also suggest that individual interpretation of bodily changes significantly influence the overall pregnancy experience. The event of pregnancy may elicit feelings of fulfilling a lifelong goal of becoming a mother, the value placed on being a mother may additionally influence whether or not the changes in weight and shape are embraced during the pregnancy period. As illustrated in previous research, pregnancy appears to construct a mindset within some women in which increased body fat and body shape are accepted and even embraced (Davies & Wardle, 1994). Furthermore, this may be influenced by acceptance of the psychological, physiological, and social roles associated with being pregnant, a time period during which cultural beauty standards may temporarily be suspended (Kamysheva et al., 2008).
**Pre-pregnancy beliefs and habits.** In addition to maternal perception of the pregnancy experience and participation in physical activity, previous dieting habits and beliefs have been found to influence body attitudes and body image during pregnancy (Davies & Wardle, 1994). Fox and Yamaguchi (1997) examined differences in body attitude changes between normal weight and overweight primiparous women in the third trimester of pregnancy. The authors noted that changes in weight gain during pregnancy were significantly associated with a woman’s body image prior to pregnancy. Results indicated that for expectant mothers with pre-pregnancy body satisfaction, pregnancy allowed them to challenge previous ideal body image. Women reported that being pregnant allowed them to relax from the social pressure to be thin. However, women in the study with body dissatisfaction prior to and during pregnancy were more likely to reject the physical changes associated with pregnancy. Such rejection may lead to body dissatisfaction and subsequent eating disordered behaviors.

In a study exploring the effects of eating disorders and pre-pregnancy body image on the pregnancy experience, Rocco et al. (2005) examined the body attitudes of 97 pregnant women. The researchers divided the sample into three groups; expectant women who had a positive history of dieting, expectant women who had a positive history of dieting but had a current eating disorder diagnosis, and pregnant women with no history of either dieting or an eating disorder. Expectant mothers completed an initial interview at the time of their first ultrasound in the first 12 weeks of pregnancy, and completed self-report questionnaires at 12, 22, and 34 weeks of pregnancy, and again at 2 days and 4 months post delivery. Rocco and colleagues reported that women who had negative body attitudes or engaged in eating disordered behaviors prior to pregnancy
continued to suffer from such disturbances during pregnancy, specifically in the second and third trimesters.

Similar results were found by Skouteris et al. (2005) among a sample of healthy Australian women who were 16 to 23 weeks gestation. Results of the study indicated that body image pre-pregnancy was an influential predictor of body image in late pregnancy. In addition, the authors also noted that body attitudes during late pregnancy were influenced by body attitudes in the first and second trimesters of pregnancy. Results indicated that eating disturbances and degree of body dissatisfaction increased during the middle and late phases of pregnancy, with return to prior levels of satisfaction post partum. These findings suggest that phase of pregnancy may also have an influential role on body image during the pregnancy period.

**Phase of pregnancy.** In addition to the pre pregnancy beliefs and habits, the phase of pregnancy may also contribute to her perception of her body image. The late phases of pregnancy, specifically the second and third trimesters are especially important periods of pregnancy due to the increase in maternal and infant attachment (Haedt & Keel, 2007). Furthermore, if the expectant mother becomes preoccupied with negative body attitudes, this could lead to psychological distress and ideal maternal and infant attachment may not take place (Rocco et al., 2005; Haedt & Keel, 2007). The consequences of poor maternal and infant attachment may include poor infant development and infant malnutrition (Rocco et al., 2005).

This concept was explored by Duncombe et al., (2008), who found that being overtly pregnant in the late second and all of third trimesters allowed women to accept their changes in weight and shape and embrace their changing figure. Furthermore, the
authors found that women reported feeling less “fat” in later pregnancy than in early pregnancy. Duncombe and colleagues suggested that expectant women may associate early pregnancy with gaining weight; however, once the pregnancy becomes physically apparent to others, women were more likely to adjust to the physical changes in a positive manner. These findings are in contrast to previously discussed research that has indicated that later pregnancy (i.e. third trimester) elicits an increase in poor body attitudes because the changes are the most deviant from the usual physicality of the woman’s shape. Such contrast suggests that there may be additional variables associated with influencing body image during pregnancy. For example, partner support may mediate a woman’s acceptance of the changes to her body during the pregnancy period.

Influences of partner support on body image. Previous literature has noted the role of social / partner support as an influential factor on body attitudes and overall body dissatisfaction (Jordan, Capdevila, & Johnson, 2005; Pole et al., 2004). Recent literature has suggested that marriage or marriage quality can act as either a risk factor or protective factors for a variety of women’s psychological and physical health issues (Pole et al., 2004). This is because research has identified that women value the support and intimacy that often accompanies a satisfied marriage or relationship (Pole et al., 2004).

Cash (1998) found that the formation of one’s ideas, beliefs, and attitudes regarding their body are influenced by family and peers, further illustrating a systemic perspective on body image (as cited in Pole et al., 2004). Although quarrelsome family relationships were associated with greater body dissatisfaction in adolescent females, minimal research has extended this concept beyond adolescence (Byely, Archibald, Graber, & Brooks-Gunn, 2000). Pole et al. (2004) examined the influence of spousal perception and couple
communication on body dissatisfaction and poor body image among middle-aged married women. The authors found that a perceived negative evaluation by a spouse (including negative comments) was significantly associated with body dissatisfaction. The researchers additionally found that more optimistic communication may positively influence body satisfaction, further emphasizing the role a spouse may play in the treatment and/or deterrence of eating disturbances among women. For example, while the women may be experiencing insecurities regarding the changes in their weight and shape, a supporting and complementary significant other may alleviate some of the negative body attitudes from forming. Research has also found high anxiety/depression and low social support to be associated with female body dissatisfaction (McKinley, 1999; as cited in Pole et al., 2004). These associations can have important implications on maternal and couple experience of pregnancy.

Little research exists regarding the role of spousal/partner support on body image during the pregnancy period; however, the research that does exists addresses the influential role of spousal support on birth outcomes and mother-infant attachment post partum (Crockenberg, 1981; Feldman, Dunkel-Schetter, Sandman, & Wadhwa, 2000). The authors worked to explore the effects of social support by examining mother/infant attachment and social support. Social support was defined as support from the father of the child observed, older children in the family, and others (i.e. friends, professionals, neighbors, and extended family). The author employed mother/infant observations and assessed for social support through an interview process. Results of the study indicated that a mother’s amount of social support was associated with infant/maternal attachment.
(Crockenberg, 1981). Additionally, low social support was associated with anxious, avoidant, and resistant attachment (Crockenberg, 1981).

Similarly, Feldman et al., (2000) examined the effects of perceived social support on infant birth weight among 247 expectant women who were in their third trimester of pregnancy. Social support was identified as support from the child’s father, family, or general functional support. Results of the study indicated that types of social support predicted infant birth weight; specifically, women with multiple types of social support (i.e. support from the child’s father, family, and general support) had infants with higher birth weight. Goldstein, Diener, and Mangelsdorf (1996) cited additional studies that have offered further support that the existence of inadequate social support during pregnancy leads to negative outcomes, such as postpartum depression, whereas, women who received adequate social support during pregnancy experienced more positive mental and physical health outcomes (Cutrona, 1984; Crockenberg, 1981; Collins, Dunkel-Schetter, Lobel, & Scrimshaw, 1993; Cutrona, 1984; as cited in Goldstein et al., 1996).

In addition to the previously discussed changes and influences associated with body image and pregnancy, the role of trauma has additionally been found to influence body image. However, research is limited regarding the association of trauma and body dissatisfaction during the pregnancy.

**Trauma**

Trauma may be defined as an “overwhelming experience outside the usual norm” (Breslau, 2002, p. 924). This stressful life event or experience can be emotional, physical, or psychological. Because traumatic events and experiences may vary in
length, intensity, and etiology, it is often difficult to identify the systemic impact of such trauma; however, research has found that experience of trauma does have a biopsychosocial impact (Mezey et al., 2004). Such impact may include the development of depressive symptoms, hindrances in daily functioning and interpersonal relationships, as well as influencing intrapersonal mental and physical health. Although men pose a higher risk for experience or exposure to trauma, women are twice as likely to develop traumatic symptoms, such as post traumatic stress disorder (Mezey et al., 2004).

**Posttraumatic Stress Disorder.** Posttraumatic Stress Disorder (PTSD; American Psychological Association (APA), 2000) is an anxiety disorder that consists of a series of symptoms that develop after experiencing a specific traumatic event. Events that can trigger the development of such symptoms may include both interpersonal (e.g., assault, abuse) and non interpersonal (e.g., natural disasters, accidents, illness) trauma. Symptoms of PTSD fall into three primary categories, 1) re-experiencing the traumatic event, 2) avoidance of reminders or triggers associated with the traumatic event, and 3) hyperarousal (APA, 2000). Furthermore, experience of such symptoms can significantly impair one’s daily functioning and impact one’s long-term mental and physical health (Gil, 2006).

Researchers have found that coping with such trauma is often manifested in internalization of the pain and distress resulting from the trauma (Gil, 2006). Consequences of exposure to a trauma can have both short-term and long-term effects. Short-term effects may be manifested as impairment in daily functioning (APA, 2000; Gil, 2006). Long-term effects of trauma may be the development of mood and anxiety disorders (Breslau, Chilcoat, Kessler, & Davis, 1999). This poses a challenge for women
during pregnancy because the existence of such symptoms may place both the mother and the unborn child at risk for poor attachment and poor maternal and infant health (Boscaglia et al., 2003). Research has additionally associated the existence of posttraumatic symptoms with prenatal attachment (Mezey et al., 2004, Schwerdtfeger & Nelson-Goff, 2007). This is imperative because prenatal attachment has been associated with postnatal attachment and parenting, thus suggesting that the prenatal period is a valid time to explore for possible prevention of later negative consequences (Schwerdtfeger & Nelson-Goff, 2007). Unfortunately, during the pregnancy period such symptoms are overshadowed by more medically based aspects of pregnancy (e.g. ultrasounds, infant health). Studies exploring depression during the pregnancy period and post partum rarely assess for previous history of trauma as a possible risk factor during pregnancy (Mezey et al., 2004). Little is known about the impact of previous experience of trauma on body image during the specific phase of pregnancy. The literature has only independently addressed the influences of a woman’s traumatic experience on body image and pregnancy.

**Interpersonal trauma and body image.** An interpersonal trauma can be referred to as a traumatic experience that directly occurs when one individual perpetrates another, such as abuse, date rape, or assault (Gil, 2006). Much of the research exploring the impact of previous interpersonal trauma on body attitudes has focused on sexual and non sexual abuse. Previous research has identified a significant relationship between previous traumatic experience, specifically childhood abuse and body image in women (Mamun et al., 2007).
In a study investigating the body mass index (BMI) of a sample of 21 years old young adults, Mamun and colleagues found the occurrence of obesity or overweight status to be significantly higher in women who had reported experiencing childhood sexual abuse (CSA) prior to age 16. However, these findings were not replicated among male participants with a history of CSA. These results suggest that when compared to men, women may be more likely to associate experience of trauma with body image. The findings also suggest that women may be more likely to cope with the previous trauma experiences in unhealthy manners, such as emotional eating leading to a cyclic pattern of poor body image and overweight status.

**Interpersonal trauma and pregnancy.** As previously mentioned, the experience of interpersonal trauma can have long-term psychological effects on an individual. In order to fully explore these effects, specifically among women, Mezey et al., (2004) examined the impact of trauma on the psychological health of childbearing women. Of the 200 female participants recruited from a London hospital 1 out of 10 reported a history of CSA and 1 out of 4 reported a history of domestic violence (Mezey et al., 2004). Additionally, 1 out of 10 women who reported having experienced a trauma in their life met criteria for PTSD (Mezey et al., 2004). Additionally, higher levels of depressive and PTSD symptoms were found in women who were victims of interpersonal trauma (Mezey et al., 2004). These findings are significant as they suggest that the pregnancy period may elicit feelings of vulnerability and the need for emotional support among women with interpersonal trauma histories. Such vulnerability coupled with depressive or traumatic symptomology places both the mother and infant at risk for poor gestational growth and low birth weight (Boscaglia et al., 2003).
Expectant mothers with a history of interpersonal victimization, specifically sexual abuse, may be threatened by the process of pregnancy and childbirth due to the specific procedures and physical examinations that accompany the pregnancy experience, such as intrusive physical examinations (Mezey et al., 2004; Mamun et al., 2007). Such examinations may elicit feelings of shame, helplessness, entrapment, or question the physical integrity of the expectant mother. Such feelings may be associated with the previous trauma, which may further lead to the development of depressive or posttraumatic symptoms during pregnancy (Haedt & Keel, 2007). These symptoms may lead to negative body attitudes and disordered eating behaviors which then influence pregnancy outcome and infant health (Boscaglia et al., 2003; Mamun et al., 2007).

The distress associated with the experience of trauma is not limited to negative pregnancy outcomes, but may additionally influence the immediate maternal psychological health and well being, as evidenced in Farber, Herbert, and Reviere (1996). Farber and colleagues observed the influence of interpersonal psychological trauma of childhood abuse on suicidality among 309 expectant mothers. The retrospective examination of the charts of 309 women treated in a psychiatry-obstetrics prenatal clinic indicated an increased association among those with a history of physical abuse and/ or sexual abuse, and the existence of suicidal ideation in pregnancy. The authors noted associations between high degree of depression and anxiety, impaired self esteem and regulation, identify confusion, and self destructive behavior and sexual/physical abuse. The authors additionally reported that the physical changes associated with pregnancy may promote the existence of differing feelings about a female’s body, resulting in body dissatisfaction and self-destructive behaviors among abuse survivors (Farber et al., 1996).
Additional traumas and pregnancy. The previous studies have specifically addressed interpersonal traumatic experiences; however, the effects of other types of traumas are not well understood. Aside from interpersonal trauma, additional traumatic experiences may include natural disasters or exposure to war or terrorists’ attacks. The accessible literature regarding the specific impact of noninterpersonal traumas on pregnancy outcome is very narrow.

In the wake of the 9/11 terrorists’ attacks Engle, Berkowitz, Wolff, and Yehuda (2005) examined the possible psychological impact of the attacks on expectant mothers in the New York area. One hundred and eighty seven women were recruited based upon their proximity and exposure to the 9/11 attacks. The women were interviewed twenty-six weeks after the attacks, and then again one month prior to their delivery dates. Results of the study found a high correlation between expectant mothers’ depression and PTSD symptoms following exposure to the trauma. Although the research is not clear, some studies have indicated that prenatal distress increases the likelihood of preterm delivery (Engel et al., 2005). Additionally, the authors noted previous studies which have found that experiencing psychological distress while pregnant can significantly influence infant birth weight, length of birth and gestational duration, all of which place the infant and mother’s health at risk (Engle et al., 2005).

Researchers have not yet assessed the possible influence of expectant mothers’ previous traumatic events on body attitudes during pregnancy. Moreover, the previously discussed studies have illustrated the need for a more systemic perspective of the pregnancy experience by reporting the intrapersonal effects of trauma (e.g. development of depressive symptoms, internalization of distress, and impact on body image) and the
interpersonal effects (e.g. influence on the couple relationship and transition to parenthood). However, inconsistencies among the literature regarding a woman’s acceptance (i.e. positive body image) or denial (i.e. negative body image) of her body modifications during pregnancy suggest that there may be a significant variable that aids in a woman’s ability to embrace the changes pregnancy brings.

**Conclusion**

In conclusion, this review has illustrated multiple influencing variables on female body image during pregnancy, further demonstrating the need for a systemic and integrative perspective on the pregnancy experience as a whole. Previous research has indicated that there is not one clear variable that has an effect on body image during this period, but the interaction of multiple variables. This research has noted that body image during the pregnancy period is a result of both an interpersonal and intrapersonal experience.

Although previous research has independently explored the effect of either previous trauma or body image on women during the pregnancy period, little research has examined the possible impact of trauma on body image during the pregnancy period. Both the experience of trauma and body dissatisfaction has been associated with increased levels of depressive symptoms among expectant mothers (Mezey et al., 2004). Such symptomology leads to detrimental consequences for the long-term physical and mental health of both the mother and the infant (Boscaglia et al., 2003; Mamun et al., 2007).

The purpose of this current study is to explore the possible influence of maternal experience of previous trauma on body image during pregnancy. Possible findings will
aid in more of a holistic perspective of the treatment of pregnancy. A systemic perspective of the findings would inform medical and mental health care professionals of the possible gaps in subject matter needing to be addressed during the pregnancy period. Addressing such gaps could then promote positive long-term mental and physical health of the couple, mother, and infant.

**Research Questions**

This study will explore the possible effects of previous trauma on body image during pregnancy by asking the following questions:

1) How does an expectant mother’s previous experience of trauma influence her perception of her body during pregnancy?

2) Are there specific traumatic experiences that more significantly influence maternal body image during pregnancy?

3) How does the perceived support of a partner influence body image development during the pregnancy period?

**Hypotheses**

1) Maternal experience of previous trauma, present experience of trauma symptoms, and lack of partner support will be negatively related to maternal body image during pregnancy.

2) Expectant mothers with an interpersonal trauma history will report more negative body attitudes than expectant mothers with non-interpersonal or no trauma history.
CHAPTER III

METHODOLOGY

Within this section a description of the measures, procedures, and plan of analyses of the current study will be given. This study was a part of a broader study addressing the influence of previous trauma on the transition to parenthood. The primary researcher of the Trauma and Transition to Parenthood study sought the approval of the Institutional Review Board prior to implementing the study (see Appendix A). For the purpose of this study, only the information pertaining to the current research thesis will be addressed.

Participants

The sample of the current study was derived over a 6-month period from a mixed suburban/rural area surrounding a large land-grant university in a Midwestern state. Using convenience and snowball sampling procedures, participants were recruited for a small pilot study using flyers at women’s health care centers and local media announcements, including the community and university newspaper and email newsletters. Following completion of the study procedures, participants were given business cards to distribute to peers who may meet study criteria and be interested in participating in the study. Potential participants went through a brief initial phone screening, in order to ensure that criteria for participation were met. Inclusion criteria were that women be between 18 and 35 years of age, currently in the second or third trimester of pregnancy and in a committed partner relationship. Typical reasons for not
meeting inclusion criteria were stage of pregnancy, language barriers, or miscarriage of the fetus prior to the scheduled interview. Although expectant mothers and their male partners took part in the interview process, for the purpose of this study only the maternal questionnaires and self reports were analyzed. A total of 21 couples met inclusion criteria and participated in the study. All participants completed the interview process in its entirety.

Demographic data found the average age of the expectant mothers to be 28 years ($SD = 4$), with a range of 19 to 35 years. Of the 21 female participants, 81% were married ($n = 17$), 14.3% were cohabitating with a significant other ($n = 3$), and 4.8% were dating ($n = 1$). A majority of the expectant mothers were Caucasian/European American ($76.2\%$, $n = 16$), with 4.8% reporting American Indian or Alaskan Native ($n = 1$), 4.8% reporting Asian or Pacific Islander ($n = 1$), 9.2% ($n = 2$) reporting “other” (Russian and Asian American). One participant (4.8%) did not report ethnicity. Female participants reported religious affiliation as follows: Protestant (38.1%, $n = 8$), Catholic (19.0%, $n = 4$), Non-Denominational (14.3%, $n = 3$), no religious preference (14.3%, $n = 3$), additionally, 4.8% ($n = 3$) reported “other”, indicating: Orthodox ($n = 1$), Church of Jesus Christ of Latter Day Saints ($n = 1$) and “other” ($n = 1$).

Regarding pregnancy, female participants ranged from 15 to 39 weeks gestation, with an average of 30 weeks. Three participants were in their second trimester of pregnancy, while 18 female participants were in their third trimester. Fifteen participants (71.4%) reported having previous pregnancies, while six participants (28.6%) reported that this pregnancy was their first pregnancy. Fourteen (66.7%) of the expectant mothers reported they were “trying to get pregnant,” two (9.5%) reported they were “not trying to
get pregnant,” and 23.8% \((n = 5)\) reported they were “okay either way” when the current pregnancy was conceived.

Total gross income reported ranged from below $9,999 to above $100,000. The largest group of the female participants reported a gross income below $9,999 \((23.8\%, n = 5)\). Regarding highest level of education completed, two participants \((9.5\%)\) completed high school, nine participants \((42.9\%)\) completed college, four participants \((9.0\%)\) completed a master’s degree, and two participants \((9.5\%)\) had completed a doctorate. Work status consisted of 42.9\% \((n = 9)\) of female participants working full-time, 23.8\% \((n = 5)\) reported being full-time homemakers, 14.3\% \((n = 3)\) reported working part-time and 14.4\% \((n = 3)\) reported unemployed (not disabled). One participant reported that she was a full time student.

In reporting past traumatic experiences, 81.0\% \((n = 17)\) reported experiencing a previous trauma, while 19.0\% \((n = 4)\) reported no previous trauma experience. Reported traumatic experiences ranged from being involved in accidents (e.g. tornadoes, vehicle accidents, witnessing accidental injuries or death), to interpersonal trauma (physical and psychological abuse), sexual trauma (rape, sexual assault, inappropriate or forced touching of private areas of the body) and finally, highly stressful situations, such as severe physical illness of self or loved one, affairs, divorce, or mental illness. Of the 17 participants who reported a previous trauma, 42.9\% \((n = 9)\) reported sexual interpersonal trauma, 19.0\% \((n = 4)\) reported nonsexual interpersonal trauma experiences and 19.0\% \((n = 4)\) reported experience of non-interpersonal trauma.
Procedures

Data collection took place between January and July of 2009. A series of individual, self-report questionnaires and a conjoint, semi-structured interview were completed by all participants in the university’s coding lab. Participants each received a $50.00 cash compensation for their time and participation in the study. Upon arrival to the observation and coding lab, participants were introduced to the study and asked to review and sign the informed consent (see Appendix B). Female participants and their male partners were then directed to separate rooms and asked to complete an initial questionnaire. Of interest to the current study are the responses for three key questionnaires that measure past trauma experiences, current trauma symptoms, perceived partner support, and current body attitudes. All of the measures used in the current study were completed individually by the expectant mother as part of the initial questionnaire. Following completion of the initial questionnaire, participants completed a semi-structured conjoint interview with their partner. At the completion of the interview process, participants were read a debriefing statement (see Appendix H) and given referral list sources to both prenatal care physicians and mental health (see Appendix I).

Measures

Demographics. Demographic information was assessed using the primary researchers generalized questions including but not limited to; race, religious preference, occupation, income, age, and gestational period (see Appendix C).

Previous trauma. Previous traumatic experience (IV) was assessed using the Stressful Life Events Questionnaire (SLESQ; Goodman, Corcoran, Turner, Yuan, &
The SLESQ is a 13-item screening measure intended to assess possible experience of 13 varying stressor events that are associated with post traumatic stress disorder symptoms and criteria (PTSD; APA, 2000; see Appendix E). The items are listed in a qualitative response format with no Likert scale (e.g. “Was physical force or a weapon ever used against you in a robbery or mugging? “Has an immediate family member, romantic partner, or very close friend died because of accident, homicide, or suicide?”)

The purpose of the measure is to identify any and all traumatic events the participant has experienced and to elicit specific details regarding the experienced event. The SLESQ displayed an adequate convergent validity of .64 (Goodman et al., 1998). The overall correlation for test-retest reliability of the number of events reported was .89 (Goodman et al., 1998). The SLESQ was utilized in the current study to determine an overall trauma exposure score by summing the number of individual traumatic events that participants indicate experiencing. Additionally, the SLESQ was used to group participants by specific interpersonal and non-interpersonal experiences of trauma.

Trauma symptoms. The Impact of Events Scale-Revised (IES-R; Weiss & Marmar, 1997; see Appendix F) is a revised version of the 15-item IES (Horowitz, Wilner, & Alvarez, 1979). Items of the IES-R correspond directly with the DSM-IV (APA, 1994) symptoms of PTSD (e.g. “Any reminder brought back feelings about it?” “I had trouble staying asleep,” “Other things kept making me think about it”).

The original IES consists of two subscales, intrusion and avoidance. Both subscales assessed for diagnostic criterion B and C of PTSD in the DSM-IV; however, after further research and evaluation a subscale of hyperarousal was added in order to
assess for presenting symptoms for criteria D (Weiss, 1997). The revised IES-R is a specific 22-item measure assessing possible distress caused by experience of traumatic events (Weiss & Marmar, 1997). The IES-R has displayed internal consistency with coefficient alphas ranging from .79 to .90 for hyperarousal, .84 to .85 for avoidance, and .87 to .92 for intrusion (Weiss & Marmar, 1997). Test–retest reliability has been evidenced by the correlation coefficients which ranged from .51 to .89 for avoidance, .57 to .94 for intrusion, and .59 to .92 for hyperarousal. Responses are rated on a 5-point Likert-type scale ranging from 0 (not at all) to 4 (extremely). Means on each subscale were computed in order to assess for degree of distress with experience of previous trauma. Total scores on the IES-R range from 0 to 88, with higher scores indicating a higher degree of trauma symptoms. Specific psychometrics for this study are listed in the following section.

**Partner support.** Partner support was assessed using the Social Support Effectiveness Questionnaire (SSE; Rini, Dunkel, Schetter, Glynn, Hobel, & Sandman, 2006; see Appendix G). The original SSE is a 21-item questionnaire administered in an interview format; however, for the purpose of this study, the questionnaire was administered by pencil and paper and not in an interview format. The SSE assesses for women’s appraisal of their partner’s social support during the previous 3 months (roughly during the first trimester of pregnancy). Example items would include, “Sometimes we need help with tasks and responsibilities such as household chores, running errands, or childcare. When your partner attempted to help you with your tasks and responsibilities, how good was the match between the amount of help provided and the amount you
wanted?” and “How often did this person offer to help you with tasks and responsibilities without you having to ask?”

The version of the questionnaire used for this study identified three categories of support: emotional, task, and informational subscales and one category of negative effects support. To score the questionnaire, subscales were formed by reverse coding the negatively worded items on the emotional support, task, and informational subscales. Items are summed so that higher scores indicated greater perceived social/partner support on the total scale and all subscales (Rini et al., 2006). Total scores on the SSE range from 0 to 80, while the scores on the four subscales range from 0 to 20. For the purpose of this study on the three subscales of task support, informational support, and emotional support were analyzed. In the original study examining the effectiveness of the SSE, internal reliability for the full SSE was adequate at $\alpha = .87$ (Rini et al., 2006).

**Body image.** For the current study, body attitudes were assessed using a shortened 32-item version of the original 44-item Body Attitudes Questionnaire (BAQ; Ben-Tovim & Walker, 1991; Skouteris, et al., 2005). The shortened BAQ sub categories used included, salience of weight and shape (8 items; e.g. “There are more important things in life than the shape of my body.”), attractiveness (5 items; e.g. “I usually feel physically attractive”), feeling fat (13 items; e.g. “I feel fat when I can’t get clothes over my hips”), and strength and fitness (6 items; e.g. “I try and keep fit”). For scoring the revised version, totals were found by summing the subscales. Ranges for the four subscale scores are as follows: 1) attractiveness: 5-25; 2) feeling fat: 13-65; 3) salience: 8-40, and 4) strength and fitness: 6-30. For the purpose of this study items

1,3,4,5,6,7,11,14,16,17,18,19,20,21,22,23,24,25,26,27,28,30, and 32 were reverse scored
so that higher scores of the subscales indicate greater self report of the specific body attitude represented in the respective subscale.

The internal consistency of the original BAQ across the 44 items was 0.87 demonstrating a high level of internal consistency of the measure (Ben-Tovim & Walker, 1991). The reliability of the original measure was examined in two separate ways. First, split half reliability of the measure was employed using the responses of the community sample (Ben-Tovim & Walker, 1991). Second, the measure’s brief test-retest reliability was measured in a separate smaller study (Ben-Tovim & Walker, 1991). After totaling the raw scores of the BAQ on both studies the scores correlated significantly \( r = 0.83 \) (Ben-Tovim & Walker, 1991). Furthermore, correlations to other measures that assess for body attitudes (the Body Dissatisfaction Scale and the Body Shape Questionnaire) demonstrated convergent validity (Ben-Tovim & Walker, 1991). Test-retest reliability and construct validity for the BAQ were established in the original development of the questionnaire (Ben-Tovim & Walker, 1991). Cronbach’s alpha for the BAQ-R (administered in the study with expectant mothers; Skouteris et al., 2005) are as follows: feeling fat T1 (time 1) =.89, attractiveness, T1=.67, salience of weight and shape, T1=.79, and strength and fitness, T1=.64 (Skouteris et al., 2005). It is unclear if the authors for the revised BAQ deleted any items on the subscale in order to increase reliability.

**Plan of Analysis**

Maternal experience of previous trauma (IV), current trauma symptoms (IV) partner support (IV) and body image (DV) were analyzed as continuous variables. Subscales of partner support, current trauma symptoms, and body image were analyzed. Cronbach’s alphas were computed in order to examine internal consistency for each of
the measures. Data were further analyzed to determine significant differences among the interpersonal trauma groups in the self-report of trauma related symptoms, partner support and body image. Participants who reported a history of interpersonal trauma were compared to participants who report non interpersonal and no trauma histories. For the purpose of this study, participants reporting child physical abuse, child sexual abuse, adult sexual assault, adult physical abuse, or victimization in a violent crime or assault were classified in the interpersonal trauma group and the sexual interpersonal trauma group, the remaining participants were classified either to the non interpersonal trauma or no trauma groups. A one-way ANOVA was ran to identify possible differences in groups for the four trauma groups (reports of no trauma, reports of non-interpersonal trauma, interpersonal trauma, and sexual interpersonal trauma), body attitudes, and perceived spousal/partner support. Additionally, crosstabular statistical techniques were utilized for data analysis between the four groups.
CHAPTER IV

Findings

The internal reliability of the analyzed measures and subscales used in this study were tested by the calculation of Cronbach’s alpha. Reliability data and descriptive statistics for the subscales used in this study are illustrated in Table 1.

Table 1
Descriptive statistics and reliability of study measures and subscales

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>α</th>
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<tbody>
<tr>
<td><strong>BAQ</strong></td>
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<tr>
<td>Feeling Fat</td>
<td>34.76</td>
<td>7.35</td>
<td>13-65</td>
<td>.79</td>
</tr>
<tr>
<td>Attractiveness</td>
<td>16.19</td>
<td>3.03</td>
<td>5-25</td>
<td>.59</td>
</tr>
<tr>
<td>Weight/Shape Salience</td>
<td>20.19</td>
<td>4.79</td>
<td>8-40</td>
<td>.67</td>
</tr>
<tr>
<td>Strength/Fitness</td>
<td>18.00</td>
<td>2.47</td>
<td>6-30</td>
<td>.22</td>
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<tr>
<td><strong>SSE</strong></td>
<td></td>
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<tr>
<td>Emotional Support</td>
<td>12.81</td>
<td>3.68</td>
<td>0-20</td>
<td>.90</td>
</tr>
<tr>
<td>Informational Support</td>
<td>13.52</td>
<td>2.38</td>
<td>0-20</td>
<td>.81</td>
</tr>
<tr>
<td>Task Support</td>
<td>13.05</td>
<td>3.39</td>
<td>0-20</td>
<td>.87</td>
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<tr>
<td><strong>IES-R</strong></td>
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<tr>
<td>Avoidance</td>
<td>6.48</td>
<td>7.22</td>
<td>0-32</td>
<td>.88</td>
</tr>
<tr>
<td>Hyperarousal</td>
<td>1.95</td>
<td>3.74</td>
<td>0-24</td>
<td>.82</td>
</tr>
<tr>
<td>Intrusion</td>
<td>3.71</td>
<td>4.30</td>
<td>0-32</td>
<td>.85</td>
</tr>
</tbody>
</table>

*Note.* BAQ= Body Attitudes Questionnaire; SSE= Social Support Effectiveness; IES-R=Impact of Life Events Revised.
Correlations

It was hypothesized that maternal experience of trauma and current trauma symptoms would be significantly correlated to maternal negative body image attitudes. Correlations between study measures can be found in Table 2. A significant positive correlation between number of traumas experienced and feeling fat was identified, $r = 0.483, p < .05$, however, no other significant associations were found between experience of trauma and body attitudes. Specifically, participants, who reported greater incidences of trauma, reported greater feelings of feeling fat (negative body attitude). A significant positive correlation was found between the feeling fat and the avoidance subscale, $r = 0.443, p < .05$, as well as, feeling fat and the intrusion subscale, $r = 0.455, p < .05$. Female participants who reported experiencing trauma symptoms of avoidance reported greater feelings of being fat; additionally, female participants who reported experiencing trauma symptoms of intrusion reported greater feelings of being fat. A negative correlation was found among informational support (from a spouse or partner) and feelings of being fat, $r = -0.519, p < .05$. Simply, female participants that reported greater perceived informational support from a spouse or partner reported lower levels of feeling fat.
Table 2

*Correlations between study measures*

<table>
<thead>
<tr>
<th></th>
<th>Feeling Fat</th>
<th>Strength</th>
<th>Weight/Shape</th>
<th>Attract.</th>
<th>Task Support</th>
<th>Info. Support</th>
<th>Emo. Support</th>
<th>Avoid.</th>
<th>Intrusion</th>
</tr>
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<tbody>
<tr>
<td><strong>BAQ</strong></td>
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<tr>
<td>Feeling Fat</td>
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<tr>
<td>Strength</td>
<td>-.058</td>
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<tr>
<td>Weight/Shape</td>
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<td>-.156</td>
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<tr>
<td>Attractiveness</td>
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<td>-.054</td>
<td>-.106</td>
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<tr>
<td><strong>SSE</strong></td>
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<tr>
<td>Task Support</td>
<td>.105</td>
<td>.346</td>
<td>.070</td>
<td>-.161</td>
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<tr>
<td>Informational Support</td>
<td>-.519*</td>
<td>.111</td>
<td>-.198</td>
<td>.562**</td>
<td>.077</td>
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<tr>
<td>Emotional Support</td>
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<td>.203</td>
<td>-.199</td>
<td>.241</td>
<td>.101</td>
<td>.862**</td>
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<tr>
<td><strong>IES-R</strong></td>
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<tr>
<td>Avoidance</td>
<td>.443*</td>
<td>.020</td>
<td>.075</td>
<td>-.039</td>
<td>.050</td>
<td>.011</td>
<td>-.010</td>
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<tr>
<td>Intrusion</td>
<td>.445*</td>
<td>.052</td>
<td>-.012</td>
<td>-.207</td>
<td>.210</td>
<td>-.038</td>
<td>.060</td>
<td>.671**</td>
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<tr>
<td>Hyperarousal</td>
<td>.399</td>
<td>.054</td>
<td>.118</td>
<td>.085</td>
<td>-.004</td>
<td>.048</td>
<td>.050</td>
<td>.729*</td>
<td>.839**</td>
</tr>
</tbody>
</table>

*p < .05  **p < .01

**Bivariate Crosstabular Analyses**

As previously discussed, participants were assigned to four different groups based on self reports of trauma experience on the SLESQ. After further review of the data, participants were assigned to no trauma group, interpersonal trauma group, non interpersonal trauma group or sexual trauma group, depending on their responses. For the purpose of this study interpersonal trauma consisted of self reports of trauma experience in which there was a direct perpetrator and victim, however excluded any sexually related trauma, which had its own category. Trauma groups were as follows, 17 female participants experiencing a previous trauma, while four reported no previous trauma experience. Of the 17 participants who reported a previous trauma, nine reported sexual
interpersonal trauma, four reported nonsexual interpersonal trauma experiences and four reported experience of non-interpersonal trauma. In order to determine possible potential differences of characteristics among the trauma groups, bivariate crosstabular analyses were conducted between the four groups on demographic information. While the four groups maintained similar demographic characteristics, a significant difference between trauma groups was found on self report of previous pregnancies $\chi^2 (n = 15) = 8.069, p < .05$. More of the expectant mothers in the sexual interpersonal trauma group reported previous pregnancies than expectant mothers in the other three trauma groups. No other significant differences were noted among the different trauma groups and self report demographics. Crosstabular statistics are illustrated in Table 3.

Table 3
*Crosstabular statistics for trauma groups and self report of previous pregnancies*

<table>
<thead>
<tr>
<th></th>
<th>No Trauma</th>
<th>Non-interpersonal Trauma</th>
<th>Interpersonal Trauma</th>
<th>Sexual Trauma</th>
<th>Total</th>
<th>Pearson $\chi^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous Pregnancies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>8</td>
<td>15</td>
<td>8.069</td>
</tr>
<tr>
<td>Total</td>
<td>4</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

**Analysis of Variance**

In order to identify possible differences between each of the trauma groups (no trauma, non-interpersonal trauma, nonsexual interpersonal trauma, and sexual interpersonal trauma) an analysis of variance (ANOVA) was conducted. For the ANOVA current trauma symptoms (avoidance, hyperarousal, and instruction), body image attitudes (feeling fat, attractiveness, salience of weight and shape, and feeling of strength and fitness) and social support (emotional support, informational support, and task support)
were included as the dependent variables, with the categorical trauma groups as the independent variable. No significant differences were identified among the groups on self-reports of current symptoms, body image attitudes or perceived social support (see Table 4).
Table 4  
*Descriptive statistics of study measures by trauma group*

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>Range</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No Trauma</td>
<td>Non-Interpersonal Trauma</td>
<td>Interpersonal Trauma</td>
<td>Sexual Interpersonal Trauma</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BAQ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeling Fat</td>
<td>32.50 (9.04)</td>
<td>29.25 (5.68)</td>
<td>37.25 (4.57)</td>
<td>37.11 (7.57)</td>
<td>13-65</td>
<td></td>
</tr>
<tr>
<td>Attractiveness</td>
<td>18.25 (1.71)</td>
<td>16.25 (3.30)</td>
<td>16.00 (1.15)</td>
<td>15.33 (3.77)</td>
<td>5-25</td>
<td></td>
</tr>
<tr>
<td>Weight/Shape</td>
<td>18.00 (1.83)</td>
<td>18.25 (3.30)</td>
<td>21.25 (3.50)</td>
<td>21.56 (6.37)</td>
<td>8-40</td>
<td></td>
</tr>
<tr>
<td>Strength</td>
<td>16.50 (3.51)</td>
<td>18.75 (2.63)</td>
<td>19.50 (1.73)</td>
<td>17.67 (2.06)</td>
<td>6-30</td>
<td></td>
</tr>
<tr>
<td>SSE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotional Support</td>
<td>13.25 (3.50)</td>
<td>13.25 (3.86)</td>
<td>13.25 (3.77)</td>
<td>12.22 (4.21)</td>
<td>0-20</td>
<td></td>
</tr>
<tr>
<td>Informational Support</td>
<td>14.50 (2.52)</td>
<td>13.25 (2.75)</td>
<td>13.75 (2.63)</td>
<td>13.11 (2.37)</td>
<td>0-20</td>
<td></td>
</tr>
<tr>
<td>Task Support</td>
<td>10.75 (2.99)</td>
<td>14.75 (.50)</td>
<td>15.25 (2.87)</td>
<td>12.33 (3.91)</td>
<td>0-20</td>
<td></td>
</tr>
<tr>
<td>IES-R</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avoidance</td>
<td>1.25 (1.08)</td>
<td>0.22 (.44)</td>
<td>1.16 (.91)</td>
<td>0.72 (.94)</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>Hyperarousal</td>
<td>0.46 (0.52)</td>
<td>0.00 (0.00)</td>
<td>0.13 (0.25)</td>
<td>0.50 (0.85)</td>
<td>0-4</td>
<td></td>
</tr>
<tr>
<td>Intrusion</td>
<td>0.44 (0.13)</td>
<td>0.28 (0.41)</td>
<td>0.34 (0.34)</td>
<td>0.61 (0.75)</td>
<td>0-4</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Standard deviations listed in parentheses
Discussion

The purpose of the current study was to explore the possible relationships between previous maternal trauma experiences and personal body image and perceived support from a partner. Several research questions were addressed. First, does an expectant mother’s previous experience of trauma influence her perception of her body during pregnancy? Second, are there specific traumatic experiences that more significantly influence maternal body image during pregnancy? And finally, does the perceived support of a partner influence body image development during the pregnancy period?

Impact of previous maternal trauma on body image during pregnancy. The results of the study suggest that it is not only the number of traumas experienced, but the post trauma symptoms (e.g. intrusion and avoidance) that may have the most impact on women’s body attitudes and overall body image during pregnancy. Positive correlations were found among reported number of traumas experienced and feeling fat, intrusion symptoms and feeling fat, and avoidance symptoms and feeling fat. Expectant mothers who reported greater incidences of traumatic experience reported greater feelings of fatness, while women who reported symptoms of intrusion and avoidance reported higher levels of feeling fat.
These results echoed previously discussed studies which suggested that experience of trauma increases the likelihood of development of traumatic symptoms, thus likely influencing body attitudes (Boscaglia et al., 2003; Mamun et al., 2003; Mezey et al., 2003). Additionally it was hypothesized that perceived support from a spouse or partner would mediate the possible association between a women’s pervious trauma experiences and current trauma symptoms and her attitudes about her body. One significant association was made between perceived informational support and feeling fat; women who reported greater perceived informational support from a partner or spouse indicated lower levels of feeling fat. However, this study did not find any additional significant associations between these variables. Additionally, there was a significant difference among women who reported previous pregnancies and experience of sexual interpersonal trauma and interpersonal trauma. These findings may be impacted by women who have had previous pregnancies, previous pregnancy experiences may influence the way in which women feel about their body, as well as influence other measures (trauma measures and perceived spousal support). Furthermore, previous pregnancies could possibly be a confounding variable that was unidentified in this study.

There may be various explanations for the associations between number of traumas experienced, presence of intrusion and avoidance symptoms and feeling fat. First, the positive correlation between number of traumas and feeling fat (a negative body attitude) coincides with previous findings that trauma experience negatively influences female body image (Mamun et al., 2007; Mezey et al., 2004). Additionally, these results parallel previous findings in which researchers have found greater incidences of obesity and overweight status among females who have reported previous trauma experience.
(Mamun et al., 2007). In addition to influencing body attitudes, the occurrence of trauma also increases the likelihood of PTSD symptoms and co-occurring disorders, which would have important implications for expectant mothers. Second, the positive correlation of avoidance symptoms and feelings of fat suggest that women who are currently experiencing avoidance symptoms may not engage in activities they had prior to the trauma, including physical activity. Avoidance symptoms may illicit withdrawn behaviors, thus hindering the women from being able to exercise as they may have once done, thus influencing their weight status. Additionally, the literature has noted that the occurrence of PTSD symptoms can lead to sensory overload of the victim, thus possibly distracting the women from proper nutrition or focusing on the needs of their bodies (Catherall, 2004). Finally, the significance between intrusion trauma symptoms (e.g., re-experiencing the trauma, flashbacks) and feelings of being fat suggest that expectant mothers who may be overwhelmed with negative physiological feelings, thoughts, and beliefs of the trauma may be less likely to have a positive assessment of their bodies. For example, the feelings of being fat may also be psychological and not just physical; more specifically, if expectant mothers are dissatisfied with themselves by the presentation of trauma symptoms (i.e., intrusion or avoidance) they may attribute these beliefs to both their mental and physical well being. For example, research has indicated that symptoms of PTSD can lead to feeling and beliefs of defeat, thus making it difficult to engage in healthy behaviors (Ethlers et al., 1998).

Another possible explanation for increased feelings of being overweight and presence of trauma symptoms may be unhealthy coping behaviors. Previous research has noted that women may cope with stressful life experiences (e.g. trauma) or symptoms of
depression or anxiety by emotional eating; such behaviors may then also lead to gaining weight, negative perception of self and poor maternal/infant health (Boscaglia et al., 2003; Mamun et al., 2007).

The negative correlation between informational support from a spouse or partner and feeling fat suggests that perceived partner support decreases negative body image among expectant mothers. These results echo previous research which has noted that a positive evaluation (e.g. positive communication) from a spouse or significant relationship decreases the existence of body dissatisfaction (Pole et al., 2004). Furthermore, informational support specifically regards the seeking of attention, information, advice, or input from a spouse or partner, which suggests that the more engaged and connected the expectant mothers perceive the significant relationship to be, the less dissatisfied they feel about their weight.

Overall, these findings may have important implications for expectant women during the pregnancy period. If women continue to experience unaddressed traumatic experiences and symptoms throughout the pregnancy period, such symptoms may distract mothers from giving adequate attention to their physical and psychological needs during the pregnancy period. For example, depending on the trauma, the mothers may avoid traveling to certain places or attending intrusive doctor’s appointments out of fear that they may experience anxiety or fear related to the trauma. Additionally, the mothers may attempt to internalize the symptoms, placing them at risk for depression and suicidality (Catherall, 2004). Co-occurrence of depression and PTSD symptomology may additionally inhibit the mother’s desire to care for herself, further influencing her unborn child. More specifically, symptoms of depression include disturbed sleeping habits, or
extreme weight loss or weight gain, all of which are detrimental to the health of both the baby and mother throughout pregnancy (APA, 2000).

Additionally, if expectant mothers form unhealthy coping behaviors in order to manage the posttraumatic symptoms, the presence of the symptoms may distract from the consequences of the poor coping behaviors. For example, previous research has found that women who had increased levels of body image concerns were more likely to smoke cigarettes, both before and during pregnancy (Mezey et al., 2005). Smoking has additionally been associated with coping with feelings of depression and anxiety, which often accompany PTSD symptomology (Boscaglia et al., 2003).

Finally, the results suggest that previous experience of trauma may lead to presentation of traumatic symptoms during the pregnancy period; such symptoms may increase the likelihood of postpartum symptomology, including anxiety or depression (Mezey et al., 2005). As previously noted, symptoms of depression and anxiety have physical effects, as well as psychological effects on the body. Physical effects include improper nutrition, severe fatigue and loss of wanting to attend to self or others. These symptoms may hinder the mother from seeking assistance in order to insure proper treatment for herself and the baby are provided. Awareness of the impact of trauma symptoms on psychological health facilitates more adequate treatment of clinical services and support for women receiving maternity care (Mezey et al., 2005). The awareness may lead to increased distribution educational information about the possible signs and symptoms associated with PTSD symptoms or co-occurring disorders such as anxiety and depression. Additionally, if these symptoms exist prenatally, treatment can occur before they become increasingly problematic post partum. For example, in addition to previous
physical health information that is gathered for pre-natal services, a mental health history may also be beneficial to acquire. Screening materials may then be administered in order to assess for any current trauma symptoms, or co-occurring disorders such as symptoms of depression or anxiety that may also influence the pregnancy experience. Furthermore, post partum depression has been linked to maternal suicidality and harmful behaviors towards the infant (Kara et al., 2008).

Strengths

The results of this study have identified a need for a more thorough evaluation and approach to pregnancy. This study identified associations between trauma symptoms and specific body attitudes women have regarding their bodies. Research has suggested that existence of trauma symptoms increases the likelihood of further symptom occurrence, including mood disorders or unhealthy coping behaviors. Identifying the effects of trauma symptoms on the pregnancy experience leads to future research. These results indicated that trauma symptoms exist during the pregnancy period and additionally influence the way women feel about themselves during this time. Such existence of symptomology has important implications both prenatally and post partum. More than anything, this exploratory study illustrates the need for further research and expanding the overall treatment of pregnancy.

Limitations

Although this exploratory study offers initial findings that are worth noting, limitations with the study do exist. Likely due to the small sample and the homogeneity among the groups, with the exception of previous pregnancies, differences were not found among the groups. In order to expand on the significant associations that were
found, a larger sample may be warranted. Minimal time and limited resources may have contributed to the lack of significant findings. Additionally, the rural location of the study may have contributed to the unavailability of the population from which the sample was derived. Lack of diversity among the sample (regarding race, education, or gross family income etc.) may have also contributed to the study outcomes. Additionally, such low alpha levels and internal reliability for the BAQ suggests that this measure may not have been the most adequate for the study, thus limiting the findings.

Clinical Implications

The significant association between trauma symptoms and body attitudes implies significant implications for clinical practice. Such findings indicate a need for a systemic perspective and treatment of the pregnancy experience. As previously discussed, previous trauma and trauma symptoms are often overlooked during the pregnancy period. Untreated trauma symptoms can further lead to development of other symptoms, distracting expectant mothers from focusing on maintaining proper maternal and infant health during a vulnerable time such as pregnancy.

Therapists will not only need to attend to the mental health of the mother (or others involved in the treatment process) but collaborate with other health care professionals to insure that health of the unborn child is maintained. This may be manifested in continually monitoring the presence of symptoms and exploring different treatment options that are safe for both mother and child (e.g. opposition to medications that may negatively influence infant health). Additionally, therapists and clients should be aware of the long-term implications associated with poor maternal mental and physical health both prenatally and post partum; for example, poor maternal/infant attachment
(leading to failure to thrive) and delayed child development have both been associated with poor maternal and infant health (Boscaglia et al., 2003; Schwerdtfeger & Nelson-Goff, 2007).

**Future research**

The correlation between trauma symptomology and body attitudes indicate implications for treatment of the pregnancy period, further research is warranted in order to explore the possible implications of trauma symptoms and the pregnancy experience. Such findings would aid in identifying possible gaps in the treatment of the pregnancy experience, as well as implications for maternal/infant health and the couple relationship. Future research would be able to further explore the effects of trauma on infant and maternal health. Additionally, research may be able to identify the effects of negative body image and the possible influential factors (not mentioned in this study) that may contribute to poor body image. Finally, research may be able to identify more thorough treatment options to insure proper maternal and infant health are maintained throughout the pregnancy period. For example, offering mental health services as a part of prenatal services, recommending moderate amounts of exercise during the prenatal period, and offering a more collaborative treatment of pregnancy, including access to physicians and mental health professionals alike.

**Conclusions**

This study worked to identify the possible associations of maternal trauma experience and body image during pregnancy. Research has indicated that negative maternal body image can have important complications for birthing outcomes, as well as maternal health. Poor body image has been linked to poor infant nutrition and low infant
birth weight (Boscaglia et al., 2003). Additionally, research has identified experience of trauma as an influential factor during the pregnancy experience, for example, symptoms of trauma and trauma experience have been linked to maternal anxiety, depression, and poor coping behaviors (Mezey et al., 2005; Mamun et al., 2007).

This study analyzed the self reports of 21 female expectant mothers who were currently in their second or third trimester of pregnancy. Findings of the study indicated that previous maternal experience of trauma, presence of trauma symptoms may all negatively influence maternal body attitudes during the period of pregnancy. Additionally, the results noted that perceived support from a partner or spouse, specifically advice and input, decreases the presence of negative body attitudes (specifically feeling fat). These findings have important implications for the overall assessment and treatment of pregnancy. The influences of previous life events, current symptoms and significant relationship suggest that the pregnancy period is more psychosocial than once perceived. This idea is echoed in the work of Engle (1977) who expanded the work of GST, suggesting a biopsychosocial model for overall medical treatment in order to bridge the gap(s) between symptoms, illness, and relationships; including adopting a more psychosocial perspective of the needs of the couple, mother, and unborn child. A psychosocial perspective for the treatment of pregnancy would allow for a thorough assessment of possible negative influences (trauma, trauma symptoms, or co-occurring disorders) that may hinder proper maternal and infant health during the vulnerable pregnancy period.
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APPENDICES
Oklahoma State University Institutional Review Board

Date: Thursday, October 29, 2009
IRB Application No. HE0561
Proposal Title: Maternal Trauma and Body Image Attitudes During Pregnancy

Reviewed and Processed as: Exempt

Status Recommended by Reviewer(s): Approved Protocol Expires: 10/28/2010

Principal Investigator(s):
Brooke Scott
3104 Crown Feathers Dr., Edmond, OK 73013

Katri L. Schwertfeger
233 HES, Stillwater, OK 74078

The IRB application referenced above has been approved. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 46 CFR 49.

☑ The final versions of any printed recruitment, consent and assent documents bearing the IRB approval stamp are attached to this letter. These are the versions that must be used during the study.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct the study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved protocols are subject to monitoring by the IRB and that the IRB office has the authority to inspect research records associated with this protocol at any time. If you have questions about the IRB procedures or need any assistance from the Board, please contact Beth McTernan in 219 Cordell North (phone: 405-744-5700, beth.mcternan@okstate.edu).

Sincerely,

[Signature]
Sheila Kennison, Chair
Institutional Review Board
APPENDIX B
Informed Consent
Informed Consent

You are invited to take part in a research study. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information.

PROJECT TITLE: The Transition to Parenthood and the Couple Relationship

INVESTIGATORS: Kami L. Schwerdtfeger, Ph.D. & Brandt C. Gardner, Ph.D.

INSTITUTION: Oklahoma State University

PURPOSE OF THE RESEARCH:
- Learn about how past life experiences impact women’s and men’s experiences during pregnancy. These experiences may include sexual abuse during childhood or as an adult, or other difficult or traumatic experiences.
- Learn about how the transition to parenthood during pregnancy impacts the couple relationship.
- Learn more about how pregnant females and their male partners feel about participating in this type of research.

PROCEDURES
This session will take about 1.5 to 2 hours of your time.
- The researcher will visit with participants, explain the study, and answer all questions
- Participants will be asked to sign this consent form.
- Upon signing the consent form, each participant will be asked to provide a saliva sample.
- Participants will then complete an individual questionnaire packet
- Once participants have completed the questionnaire, each participant and their partner will participate in a couple interview (30-45 minutes) that will be audiotaped.
- Following the interview, participants will be asked to provide a second saliva sample.
- Finally,

COMPENSATION:
Participation will take about 1.5 to 2 hours of time altogether. Participants will be compensated in the amount of $100.00; $50.00 at the end of the questionnaires, and $50.00 after the interviews, payable in cash. Full participation in the interview or questionnaire is not required to receive the compensation.

RISKS OF PARTICIPATION
Risks associated with participation in this study are expected to be minimal, although some participants may experience some psychological distress caused from acknowledgement thinking or talking about past difficult or traumatic experiences, pregnancy, and/or the couple relationship. These risks are similar to those experienced when talking about personal information with others. If participants experience distress, the interview will end and the interviewers will visit with the person, and efforts will be made to increase the participant’s physical comfort, such as offering a drink of water or moving to another location. The
interviewer will offer information on community-level resources and offer to follow-up after the interview via telephone. If further support and treatment is deemed necessary, participants will be referred to mental health providers. It is not anticipated that undue emotional distress will occur within the research study. No physical distress is expected to occur within the research study.

**BENEFITS:**
We cannot promise any direct benefit for taking part in this study. However, we hope the information we get from this study may help develop a greater understanding of men’s and women’s experiences of pregnancy and the impact of the transition to parenthood on the couple relationship. Study participants may receive benefits of participation related to increased awareness of the impact of past life experiences on their pregnancy experience, increased awareness of the impact the transition to parenthood may have on their couple relationship.

**CONFIDENTIALITY:**
- Neither during the questionnaire nor the interview will the participants be asked to reveal their names.
- If participants voluntarily provide information that could potentially lead to identification, it will be deleted from the interview transcripts.
- If individual quotes are used from the interviews all identifying information will be deleted and pseudonyms would be used.
- The audio tapes and questionnaires generated from this study will be kept in a locked file cabinet until data are transcribed and entered into datasets—a period of no more than two years, after which point they will be destroyed.
- The records of this study will be kept private. Research records will be stored securely and only researchers and individuals responsible for research oversight will have access to the records. It is possible that the consent process and data collection will be observed by research oversight staff responsible for safeguarding the rights and wellbeing of people who participate in research.
- Study results will not use participants’ real names and any other personal identifying information will be changed.
- Data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These include, but may not be limited to, incidents of abuse and suicide risk.
- Should participants report undue distress as a result of participating in the study, the Oklahoma State University Institutional Review Board for the Protection of Human Subjects must be notified. This may involve sharing of anonymous responses.

**PERSONS TO CONTACT:**
Dr. Kami L. Schwerdtfeger is the principal investigator on this study. If you have questions about either this study or your rights as a participant, you may contact Dr. Schwerdtfeger by phone (334-7994) or email (kami.schwerdtfeger@okstate.edu). If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-1676 or irb@okstate.edu.
PARTICIPANT RIGHTS:
Participation in this study is strictly voluntary. Participants can refuse or not complete the questionnaire or interview at any point in time without penalty. Termination of participation can occur if a participant appears distressed.

SIGNATURES:

I have read and fully understand the consent form. I sign it freely and voluntarily. A copy of this form has been given to me.

Printed Name of Participant
_________________________________________ Date:____________________
Participant’s signature

I certify that I have personally explained this document before requesting that the participant sign it.

_________________________________________ Date:____________________
Signature of researcher:
APPENDIX C
Demographics
ID# _________________
Date ________________

1. What is your age? _____

2. What is your racial/cultural/ethnic origin? (Check all that apply)
☐ American Indian or Alaska Native
☐ Asian or Pacific Islander
☐ African-American (Black)
☐ Mexican-American
☐ European-American (White)
☐ Other (Please Identify)______________________

3. What is your current relationship status? (Check one)
☐ Married How Long? ________
☐ Dating How Long? ________
☐ Separated How Long? ________
☐ Divorced How Long? ________
☐ Remarried How Long? ________
☐ Living together How Long? ________
☐ Other (please specify): __________________________________________________________

4. Total number of marriages (including current marriage) ____________

5. What is your highest level of education that you have completed? (Check one)
☐ No formal education
☐ Some grade school
☐ Completed grade school
☐ Some high school
☐ Completed high school
☐ Some college
☐ Completed college
☐ Some graduate work
☐ Completed master’s degree
☐ Completed doctorate

6. What is your religious preference? (Check one)
☐ Protestant (e.g., Baptist, Lutheran, etc.) ______________________________
☐ Catholic
☐ Jewish
☐ None
☐ Non-denominational
☐ Other (Please specify) ______________________________

7. Employment: (Check the one that best describes your status)
☐ Employed full-time
☐ Employed part-time
☐ Unemployed (Not disabled)
☐ Unemployed (Due to disability)
☐ Retired
☐ Full-time student
☐ Part-time student
☐ Full-time homemaker
8. What is your occupational title? _______________________________________

9. Which category would include your gross family income, from all sources, before taxes last year? (Check one)

- □ Below $9,999
- □ $10,000-$19,999
- □ $20,000-$29,999
- □ $30,000-$39,999
- □ $40,000-$49,999
- □ $50,000-$59,999
- □ $60,000-$69,999
- □ $70,000-$79,999
- □ $80,000-$89,999
- □ $90,000-$99,999
- □ $100,000-above

10. Have you had any emotional/psychological problem(s) (e.g., anxiety, depression, schizophrenia, etc.) for which you have seen a mental health professional (e.g. social worker, psychologist, counselor, marriage and family therapist) at least once every 2 months:

   a. During the last year?
      - □ No
      - □ Yes → if yes, please specify the problem.

   b. During the last 2 years?
      - □ No
      - □ Yes → if yes, please specify the problem.

   c. During the last 5 years?
      - □ No
      - □ Yes → if yes, please specify the problem.

11. How far along, in weeks, are you in your current pregnancy? ________ (weeks)

12. Have you had any previous pregnancies?

   - □ No
   - □ Yes → if yes, How many were: ______ live births
     ______ stillbirths
     ______ abortions
     ______ miscarriages
     ______ terminations due to malformation
     ______ other

13. When you got pregnant this time, were you:

   - □ Trying to get pregnant
☐ Trying NOT to get pregnant  ☐ Okay either way

14. Did you plan the timing of your pregnancy (or spacing of your births)?
   ☐ No
   ☐ Yes → if yes, what factors did you take into consideration when planning the timing?

15. Have physical problems ever made it difficult for you to have a baby you wanted to have?
   ☐ No
   ☐ Yes → if yes, what physical problems?
     ☐ Sterilization,
     ☐ Endometriosis
     ☐ Sperm problems
     ☐ Ovulation problems
     ☐ Poor health
     ☐ Weight
     ☐ Other ________________________________

16. Do you think of yourself as someone who has had trouble getting pregnant?
   ☐ No
   ☐ Yes

17. Do you think of yourself as someone who has had fertility problems?
   ☐ No
   ☐ Yes
   ☐ Maybe

18. Did you receive medical treatment to help you achieve this pregnancy?
   ☐ No
   ☐ Yes → if yes, what medical treatment did you receive to achieve this pregnancy?
     ☐ In-vitro fertilization
     ☐ Ovulation stimulating drugs
     ☐ Sperm injection

19. How much of the costs of infertility tests or treatments have you had to pay out-of-pocket?
   ☐ N/A
   ☐ $0-$499
   ☐ $500-$999
   ☐ $1,000-$4,999
   ☐ $5,000-$9,999
   ☐ $10,000-$19,999
   ☐ $20,000-above

20. Is the current pregnancy different from previous pregnancies in any way? If yes, please explain. ________________________________
21. Do you have children now in your care?
   ☐ No
   ☐ Yes ➔ if Yes, please specify:
     ☐ Biological Children ➔ How many: ________
     ☐ Step Children ➔ How many: ________
     ☐ Adopted Children ➔ How many: ________
     ☐ Foster Children ➔ How many: ________
     ☐ Siblings ➔ How many: ________
     ☐ Other relative/non-relative ➔ How many: ________

22. Please list any symptoms that you have had related to this pregnancy. ____________

23. Complications of this pregnancy:
   ☐ Pre-Eclampsia
   ☐ Gestational Diabetes
   ☐ Threatened Preterm Labor
   ☐ Other: ____________________________

24. How many weeks pregnant were you at the time of your first prenatal care visit? ______

25. How many prenatal medical care visits have you had? _________________________

26. How many prenatal medical care visits has your partner attended with you? ______

27. How many ultrasounds have you had? _________________________

28. How many ultrasounds has your partner attended with you? _________________________

29. Do you intend to breastfeed?
   ☐ No
   ☐ Yes
   ☐ Undecided

30. In the past month, what has been the most stressful aspect of being pregnant for you? __

31. How stressful has your pregnancy been over the past month? (Circle one)
   ☐ Not at all Stressful
   ☐ Somewhat Stressful
   ☐ Very Stressful

70
APPENDIX D
Body Attitudes Questionnaire
The Body Attitudes Questionnaire (BAQ)

Following is a list of statements concerning how you may feel about your body since becoming pregnant, please indicate the extent to which you agree or disagree with each statement.

<table>
<thead>
<tr>
<th>Since being pregnant have you felt this way about your body…</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I usually feel physically attractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>2. People hardly ever find me sexually attractive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>3. I get worried about my shape that I feel I ought to diet.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>4. I feel fat when I can’t get clothes over my hips.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>5. I feel satisfied with my face.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>6. I worry that other people can see rolls of fat around my waist and stomach.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>7. I think I deserve the attention of the opposite sex.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>8. I hardly ever feel fat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>9. There are more important things in life than the shape of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>10. I think it is ridiculous to have plastic surgery to improve your looks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>11. I feel fat when I wear clothes that are tight around the waist.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>12. I quickly get exhausted if I overdo it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>13. I have a slim waist.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>14. Wearing loose clothes make me feel thin.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>15. I hardly ever think about the shape of my body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>16. I am proud of my physical strength.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>17. Eating sweets, cakes or other high calorie food, makes me feel fat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>18. I have a strong body.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td></td>
</tr>
<tr>
<td>19. I feel fat when I have my photo taken.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>20. I try and keep fit.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>21. Thinking about the shape of my body stops me from concentrating.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>22. I spend too much time thinking about food.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>23. I am preoccupied with the desire to be lighter.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>24. I often feel fat.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>25. I spend a lot of time thinking about my weight.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>26. I am a bit of an “Iron-man”.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>27. I feel fat when I am lonely.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>28. People often compliment me on my looks.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>29. Losing one kilogram in weight would not really affect my feelings about myself.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>30. I feel fat when I can no longer get into clothes that used to fit me.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>31. I have never been very strong.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>32. I try and avoid clothes which make me especially aware of my shape.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
APPENDIX E
The Stressful Life Events Questionnaire
The Stressful Life Events Questionnaire

The items listed below refer to events that may have taken place at any point in your entire life, including early childhood. If an event or ongoing situation occurred more than once, please record all pertinent information about additional events on the last page of this questionnaire. (Please print or write neatly).

A. Have you ever had a life-threatening illness?

- No
- Yes → if yes, at what age? __________
  - Duration of Illness _______________________
  - Describe specific illness ____________________

B. Were you ever in a life-threatening accident?

- No
- Yes → if yes, at what age? __________
  - Describe accident ________________________
  - Did anyone die? No
  - Yes → if yes, who? (relationship to you) __________
  - What physical injuries did you receive? 
  - Were you hospitalized overnight? No Yes

C. Was physical force or a weapon ever used against you in a robbery or mugging?

- No
- Yes → if yes, at what age? __________
  - How many perpetrators? __________
  - Describe physical force (e.g., restrained, shoved) or weapon used against you. 
  - Did anyone die? No
  - Yes → if yes, who? __________
  - What injuries did you receive? __________
  - Was your life in danger? No Yes

D. Has an immediate family member, romantic partner, or very close friend died because of accident, homicide, or suicide?

- No
- Yes → if yes, at what age? __________
  - How did this person die? ______________________
  - Relationship to person lost __________
  - In the year before this person died, how often did you see/have contact with him/her? __________
  - Have you had a miscarriage? No
  - Yes → if yes, at what age? __________
E. At any time, has anyone (parent, other family member, romantic partner, stranger or someone else) ever physically forced you to have intercourse, or to have oral or anal sex against your wishes, or when you were helpless, such as being asleep or intoxicated?

☐ No  ☐ Yes → if yes, at what age? __________

- If yes, how many times?  ☐ 1  ☐ 2-4  ☐ 5-10  ☐ more than 10
- If repeated, over what period?  ☐ < 6 months  ☐ 7 months-2 years
  ☐ 2-5 years  ☐ 5+ years
- Who did this? (specify sibling, date, etc.)

- Has anyone else ever done this to you?  ☐ No  ☐ Yes
F. Other than experiences mentioned in earlier questions, has anyone ever touched private parts of your body, made you touch their body, or tried to make you to have sex against your wishes?

☐ No  ☐ Yes → if yes, at what age?
  ▪ If yes, how many times?  ☐ 1  ☐ 2-4  ☐ 5-10  ☐ more than 10
  ▪ If repeated, over what period?  ☐ < 6 months  ☐ 7 months-2 years
      ☐ 2-5 years  ☐ 5+ years
  ▪ Who did this? (Specify sibling, date, etc.)
    ____________________________
  ▪ What age was this person? __________
  ▪ Has anyone else ever done this to you?  ☐ No  ☐ Yes

G. When you were a child, did a parent, caregiver or other person ever slap you repeatedly, beat you, or otherwise attack or harm you?

☐ No  ☐ Yes → if yes, at what age?
  ▪ If yes, how many times?  ☐ 1  ☐ 2-4  ☐ 5-10  ☐ more than 10
  ▪ If repeated, over what period?  ☐ < 6 months  ☐ 7 months-2 years
      ☐ 2-5 years  ☐ 5+ years
  ▪ Describe force used against you (e.g., fist, belt)_________________________
  ▪ Were you ever injured?  ☐ No  ☐ Yes → if yes, describe________________________
  ▪ Who did this? (Relationship to you)___________________________
  ▪ Has anyone else ever done this to you?  ☐ No  ☐ Yes

H. As an adult, have you ever been kicked, beaten, slapped around or otherwise physically harmed by a romantic partner, date, family member, stranger, or someone else?

☐ No  ☐ Yes → if yes, at what age?
  ▪ If yes, how many times?  ☐ 1  ☐ 2-4  ☐ 5-10  ☐ more than 10
  ▪ If repeated, over what period?  ☐ < 6 months  ☐ 7 months-2 years
      ☐ 2-5 years  ☐ 5+ years
  ▪ Describe force used against you (e.g., fist, belt)_________________________
  ▪ Were you ever injured?  ☐ No  ☐ Yes → If yes, describe________________________
  ▪ Who did this? (Relationship to you)___________________________
  ▪ If sibling, what age was he/she_____________________
  ▪ Has anyone else ever done this to you?  ☐ No  ☐ Yes

I. Has a parent, romantic partner, or family member repeatedly ridiculed you, put you down, ignored you, or told you were no good?

☐ No  ☐ Yes → if yes, at what age?
  ▪ If yes, how many times?  ☐ 1  ☐ 2-4  ☐ 5-10  ☐ more than 10
  ▪ If repeated, over what period?  ☐ < 6 months  ☐ 7 months-2 years
      ☐ 2-5 years  ☐ 5+ years
  ▪ Who did this? (Relationship to you)_________________________
  ▪ If sibling, what age was he/she______________________
J. Other than the experiences already covered, has anyone ever threatened you with a weapon like a knife or gun?

- Has anyone else ever done this to you? □ No □ Yes
- If yes, at what age?
  - □ No □ Yes → If yes, at what age? __________
  - If yes, how many times? □ 1 □ 2-4 □ 5-10 □ more than 10
  - If repeated, over what period? □ < 6 months □ 7 months-2 years □ 2-5 years □ 5+ years
  - Describe nature of threat ____________________________________________________________
  - Who did this? (Relationship to you) ________________________________________________
  - Has anyone else ever done this to you? □ No □ Yes

K. Have you ever been present when another person was killed? Seriously injured? Sexually or physically assaulted?

- □ No □ Yes → if yes, at what age? __________
  - Please describe what you witnessed ________________________________________________
  - Was your own life in danger? _____________________________________________________

L. Have you ever been in any other situation where you were seriously injured or your life was in danger (e.g., involved in military combat or living in a war zone)?

- □ No □ Yes → if yes, at what age? __________
  - Please describe. ___________________________________________________________________

M. Have you ever been in any other situation that was extremely frightening or horrifying, or one in which you felt extremely helpless, that you haven't reported?

- □ No □ Yes → if yes, at what age? __________
  - Please describe. ___________________________________________________________________
APPENDIX F
The Impact of Life Events Scale
The Impact of Stressful Life Events Questionnaire

For the next set of questionnaires, please focus on one traumatic event of life altering event that has occurred in your life

A. Check the general experience you are thinking of:

☐ Loss of a loved one
☐ Chronic or acute illness
☐ Violent or abusive crime
☐ Accident or injury
☐ Disaster
☐ Disability
☐ Job loss
☐ Financial hardship
☐ Career or location change/move
☐ Change in family responsibility
☐ Divorce
☐ Retirement
☐ Combat
☐ Other ______________________

B. Indicate time lapsed since event occurred:

☐ less than 6 months
☐ 6 months – 1 year
☐ 1 – 2 years
☐ 2 – 5 years
☐ 6 – 10 years
☐ 11– 20 years
☐ More than 20 years

Following is a list of difficulties people sometimes have after stressful life events. Please read each item, and then indicate how distressing each difficulty has been for you during the past 7 days with respect to the specific traumatic or life-altering event that you are thinking of.

<table>
<thead>
<tr>
<th>In the past week, how much were you distressed or bothered by these difficulties?</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Fairly</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Any reminder brought back feelings about it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. I had trouble staying asleep.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Other things kept making me think about it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. I felt irritable and angry.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. I avoided letting myself get upset when I thought about it or was reminded of it.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
6. I thought about it when I didn’t mean to. | 0 | 1 | 2 | 3 | 4
7. I felt as if it hadn’t happened or wasn’t real. | 0 | 1 | 2 | 3 | 4
8. I stayed away from reminders about it. | 0 | 1 | 2 | 3 | 4
9. Pictures about it popped into my mind. | 0 | 1 | 2 | 3 | 4
10. I was jumpy and easily startled. | 0 | 1 | 2 | 3 | 4
11. I tried not to think about it. | 0 | 1 | 2 | 3 | 4
12. I was aware that I still had a lot of feelings about it, but I didn’t deal with them. | 0 | 1 | 2 | 3 | 4
13. My feelings about it were kind of numb. | 0 | 1 | 2 | 3 | 4
14. I found myself acting or feeling like I was back at that time. | 0 | 1 | 2 | 3 | 4
15. I had trouble falling asleep. | 0 | 1 | 2 | 3 | 4
16. I had waves of strong feelings about it. | 0 | 1 | 2 | 3 | 4
17. I tried to remove it from my memory. | 0 | 1 | 2 | 3 | 4
18. I had trouble concentrating. | 0 | 1 | 2 | 3 | 4
19. Reminders of it caused me to have physical reactions, such as sweating, trouble breathing, nausea, or a pounding heart. | 0 | 1 | 2 | 3 | 4
20. I had dreams about it. | 0 | 1 | 2 | 3 | 4
21. I felt watchful and on guard. | 0 | 1 | 2 | 3 | 4
22. I tried not to talk about it. | 0 | 1 | 2 | 3 | 4
APPENDIX G
The Social Support Effectiveness Questionnaire
The Social Support Effectiveness Scale

In our daily lives, we sometimes need help or support from people who are close to us. The following questions ask about help or support you may have received in the past 3 months and what you thought of it. Please answer the following questions about help or support received from your spouse or romantic partner in the past 3 months. For each question, mark the answer that most closely matches how you feel.

1. Sometimes we need help with tasks and responsibilities such as household chores, running errands, or childcare. When your partner attempted to help you with your tasks and responsibilities, how good was the match between the amount of help provided and the amount you wanted?

   □ Very Poor
   (far too little or far too much)
   □ Poor
   (too little or too much)
   □ Fair
   (somewhat too little or somewhat too much)
   □ Good
   (close to being the right amount)
   □ Excellent
   (exactly the right amount)

2. To what extent did you wish this person’s help had been different somehow—for instance, a different type of help, or offered in a different way or at a different time?

   □ Not at all
   □ A little bit
   □ Moderately
   □ Quite a bit
   □ Extremely

3. When help with tasks and responsibilities are provided skillfully, it makes you feel less burdened and you don’t feel bad for needing it. When this person attempted to help you with tasks and responsibilities, to what extent was his/her help provided skillfully?

   □ Not at all
   □ A little bit
   □ Moderately
   □ Quite a bit
   □ Extremely

4. When you needed this person’s help with tasks and responsibilities, how often was it difficult to get?

   □ Never
   □ Rarely
   □ Sometime
   □ Often
   □ Always

5. How often did this person offer to help you with tasks and responsibilities without you having to ask?

   □ Never
   □ Rarely
   □ Sometime
   □ Often
   □ Always

6. Sometimes we need advice or information—for instance, on how to get something done or how to handle a problem. When this person attempted to give you advice or information, how good was the match between the amount he/she provided and the amount you wanted?

   □ Very Poor
   (far too little or far too much)
   □ Poor
   (too little or too much)
   □ Fair
   (somewhat too little or somewhat too much)
   □ Good
   (close to being the right amount)
   □ Excellent
   (exactly the right amount)
7. To what extent did you wish this person’s advice or information had been different somehow—for instance, a different type of help, or offered in a different way or at a different time?

[ ] Not at all  [ ] A little bit  [ ] Moderately  [ ] Quite a bit  [ ] Extremely

8. When advice or information is provided skillfully, it is useful and you don’t feel bad for needing it. When this person attempted to give you advice or information, to what extent was it provided skillfully?

[ ] Not at all  [ ] A little bit  [ ] Moderately  [ ] Quite a bit  [ ] Extremely

9. When you needed advice or information from this person, how often was it difficult to get?

[ ] Never  [ ] Rarely  [ ] Sometime  [ ] Often  [ ] Always

10. How often did this person offer helpful advice or information without you having to ask for it?

[ ] Never  [ ] Rarely  [ ] Sometime  [ ] Often  [ ] Always

11. Sometimes we need emotional support—someone to listen to and understand our feelings or to show us affection and concern. When this person attempted to give you emotional support, how good was the match between the amount of support he/she provided and the amount you wanted?

[ ] Very Poor (far too little or far too much)  [ ] Poor (too little or too much)  [ ] Fair (somewhat too little or somewhat too much)  [ ] Good (close to being the right amount)  [ ] Excellent (exactly the right amount)

12. To what extent did you wish this person’s emotional support had been different somehow—for instance, a different type of support, or offered in a different way or at a different time?

[ ] Not at all  [ ] A little bit  [ ] Moderately  [ ] Quite a bit  [ ] Extremely

13. When emotional support is provided skillfully, it makes you feel loved and cared for and you don’t feel bad for needing support. When this person attempted to give you emotional support, to what extent was the support provided skillfully?

[ ] Not at all  [ ] A little bit  [ ] Moderately  [ ] Quite a bit  [ ] Extremely

14. When you needed emotional support from this person, how often was it difficult to get?

[ ] Never  [ ] Rarely  [ ] Sometime  [ ] Often  [ ] Always
15. How often did this person offer emotional support without you having to ask for it?

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometime</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
</table>

When you received help or support from this person in the past 3 months, did it ever make you feel any of these things?

<table>
<thead>
<tr>
<th>Feeling</th>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Disrespected/Insulted</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>17. Helpless</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>18. Incompetent</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>19. Guilty</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>20. Ashamed/Embarrassed</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>21. Stupid/Unintelligent</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>22. Indebted, like you owe something in return</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>23. Frustrated</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>24. Angry</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>25. Irritated</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
APPENDIX H
Debriefing Statement
Debriefing Statement

Pregnancy can be stressful, as well exciting and happy time. If any of these questions have made you feel low or depressed or worried, please talk to your midwife or your doctor. They will help you talk about your concerns or may be able to help you in other ways.

If answering any of these questions led you to feel distressed and you would like to speak to someone about your thoughts, please contact one of the following:

If you have any questions about the study, or would like to receive a report of this research when it is completed (or a summary of the findings), please feel free to contact Kami L. Schwerdtfeger, Ph.D. at 405-334-7994.
APPENDIX I
Resource List
**Resource List**

**Mental Health Services Resource List**
- Counseling Psychology Center (OSU) 744-6980
- Edwin Fair 372-6100
- Psychological Services Center (OSU) 744-5975
- Stillwater Crisis Center Hotline 624-3020
- University Counseling Services (OSU) 744-5472
- Stillwater Domestic Violence 377-2344
- Focus Institute 377-6768

**Prenatal Services Resource List**
- Payne County Health Department 150-8000
- Mbstetrical & Gynecological Associates of Stillwater/ Cimarron Women's Clinic 377-5239
- Stillwater Medical Center 372-1480
- Stillwater Life Services, Inc 624-3332
- Birth Choice 377-5683
- Atkinson Family Clinic 533-1303
VITA

Jessica Brooke Scott

Candidate for the Degree of

Master of Science

Thesis: MATERNAL TRAUMA AND BODY IMAGE ATTITUDES DURING PREGNANCY

Major Field: Human Development and Family Science with a specialization in Marriage and Family Therapy

Biographical:

Education:
• Bachelors of Science in Psychology, Oklahoma State University, May 2007
• Completed the requirements for the Master of Science in Human Development and Family Science, with a specialization in Marriage and Family Therapy, Oklahoma State University, Stillwater, Oklahoma in December 2009.

Experience:
• Therapy Intern at Center for Family Services, Oklahoma State University
• Therapy Intern, Edmond Family Counseling
• Graduate Research Assistant for Oklahoma State University
• Graduate Teaching Assistant for Oklahoma State University

Professional Memberships:
Student member of American Association of Marriage and Family Therapy
Student member of Oklahoma Association of Marriage and Family Therapy
Name: Jessica Brooke Scott          Date of Degree: December, 2009

Institution: Oklahoma State University    Location: Stillwater, Oklahoma

Title of Study: MATERNAL TRAUMA AND BODY IMAGE ATTITUDES DURING PREGNANCY

Pages in Study: 89                          Candidate for the Degree of Master of Science

Major Field: Human Development and Family Science with a specialization in Marriage and Family Therapy

Scope and Method of Study:

To identify the possible association between previous maternal trauma and body image attitudes. This study explored 21 expectant mothers previous trauma history, presence of trauma symptoms, and body image attitudes during the late second or third trimester of pregnancy.

Findings and Conclusions:

Significant findings were indicated between actual trauma and body attitudes, as well as presence of trauma symptoms and body attitudes specifically, feelings of fat. These findings suggest that the experience of trauma and presence of trauma symptoms have a negative influence on maternal body image attitudes during pregnancy. Such findings have important implications for the treatment of the pregnancy period, ensuring that proper maternal and infant health is maintained through this vulnerable time.