COPING FROM PREGNANCY TO PARENTHOOD

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by

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CHAPTER 1

INTRODUCTION

“What am I going to do now?” This question encompasses the idea behind research on coping with stressful life events. However, the assumption of this question is that individuals only begin to think about coping after an event has occurred. Although life events are often unplanned or unexpected, there are many instances when individuals know that a life event is impending. For these events, research on reactive coping fails to explain how individuals plan for upcoming events. While everyone encounters stressors they consider demanding, individuals must work to alleviate the distress that results from these events and, if possible, attempt to modify these stressors. The consequences of stress on health have long been of interest, and the literature has repeatedly shown stress to impact an individual’s mental and physical health (e.g. Lazarus & Folkman, 1984). While it is understood that stress can negatively impact those who experience it, there is also a desire to understand which factors lead to an event being encoded as stressful and what determines how someone will choose to cope with a stressful event. A plethora of literature examines the impact of stress, but prior literature has focused almost exclusively on how individuals deal reactively with taxing situations (Schwarzer & Knoll, 2003). More recently, the stress and coping literature has begun to include coping for events before they occur (e.g. Aspinwall & Taylor, 1997; Greenglass, 2002;
One domain that creates anticipation about potential stress that may occur is preparing for parenthood.

For most expectant parents, pregnancy is a life transition that is filled with excitement and joy in anticipation of the baby’s arrival. However, pregnancy is also a major life change with an increased risk of distress due to both hormonal changes and adjustment to a new life stage (e.g. Wisner, Gelenberg, Leonard, Zarin, Johanson, & Frank, 1999). While both physical and mental health have the potential to be impacted by stress during pregnancy, the current dissertation will focus exclusively on mental health outcomes, as researchers have repeatedly found both depression and anxiety to increase during pregnancy (e.g. DaCosta, Larouche, Drista, & Brender, 1999; Heron, O’Connon, Evans, Golding, & Glover, 2004). One way to minimize stress is through effective coping strategies (e.g. Penley, Tomaka, & Wiebe, 2002). In the current dissertation, I will provide an overview of the stress and coping literature, while focusing specifically on theories of reactive and proactive coping. I will discuss each method of coping, individual differences, potential implications for health, and the ways each method can be utilized during the transition to parenthood. I will use two studies to examine reactive and proactive coping. In Study 1, my overall goal is to replicate the reactive coping literature in a sample of first time mothers and fathers. In Study 2, my overall goal is to expand the proactive coping literature by examining the transition to parenthood from pregnancy through the postpartum period in first time mothers.
Overview of Stress Theory

Before attempting to understand the process of coping with stress, it is important to first understand what it means to be stressed. The concept of stress refers to an environment that an individual appraises as significant for their well-being and the demands of which are taxing or exceeding the personal and social resources they are able to mobilize (Lazarus & Folkman, 1984). Because stress can occur “when resources are lost, threatened with loss, or where resources are invested without subsequent resource gain” (Hobfoll, Schwarzer, & Chon, 1998), stress can arise from both positive and negative events. Both daily and chronic stressors (i.e. stressors lasting more than a month) have been shown to negatively impact an individual’s mental health (see Penley, Tomaka, & Wiebe, 2002 for a review). DeLongis, Folkman, and Lazarus (1988) found daily stress is related to health problems both at the same time point and across time. Chronic stressors are also deleterious for health outcomes, possibly due to the biological costs of persistent stress (e.g. Herbert & Cohen, 1993). Thus, because of the high costs stressors have on health it is important to understand how an individual comes to view pregnancy as stressful and how it impacts coping.

The transaction-based theory of stress proposes that stress does not exist as an event on its own, but rather results from the interplay between an individual and their environment (Lazarus, 1966; Lazarus & Folkman, 1984). In the transactional approach, importance is placed upon the role of appraisal, arguing that it is the primary mediator between the individual and their environment. There are three specific types of appraisals that help determine which coping strategies are used and how the individual
will respond to a situation: primary appraisal, secondary appraisal, and reappraisal (Lazarus & Folkman, 1984). *Primary appraisal* is a cognitive process related to an individual’s judgment about their environment. An individual may determine that a situation involves a threat, which is then appraised as a stressor. This stress appraisal represents the anticipated harm when demands are perceived to exceed the resources immediately available to an individual. Primary appraisal determines whether a situation is viewed as a challenge or as innocuous or irrelevant for which no further appraisal is required. After primary appraisal determines an event as stressful, *secondary appraisal* is enacted and involves evaluating possible coping strategies to manage the situation. Individuals facing the same stressor may choose different coping strategies based on their appraisal of the event. After primary and secondary appraisals have occurred, an individual may go back and reappraise the situation. *Reappraisal* involves the process of repeatedly evaluating and labeling earlier appraisals (DeLongis & Preece, 2000).

**Stress during Pregnancy**

One situation where this process of appraisal can be seen is during pregnancy. If an expectant parent learns that their unborn child may have a health problem, the degree to which a parent is distressed by this news may vary greatly based on their primary appraisal of the situation. If the situation is evaluated as being stressful, then secondary appraisal will occur to determine which resources the parent has at their disposal to cope with the situation. Coping resources can help to minimize potentially harmful consequences of a stressful experience (Pearlin, Menaghan, Lieberman, & Mullan, 1981). For example, by having financial resources to help them care for the baby or by having a
social network to rely upon for support, expectant parents may feel more at ease. However, an expectant parent may feel more distressed if they realize they do not have access to the resources they will need. Even after a parent has evaluated a stressor using primary and secondary appraisals of the situation, they may need to continue to reappraise the stressor if it is not eliminated by the coping process.

As demonstrated with the example above, pregnancy can be appraised as stressful by some expectant parents who have potential health problem, but also especially by those experiencing parenthood for the first time. Reasons for this stress appraisal for a seemingly happy event is that new parents may feel unprepared for the transition, the pregnancy may not be planned or anticipated, or if the baby’s or mother’s health is at risk. These uncertainties surrounding pregnancy and childbirth can cause expectant parents to worry (Melender, 2002). Worries are common for women during pregnancy and have been found to change as the pregnancy progresses (Glazer, 1980). The most common worries associated with normal pregnancy include the baby’s well-being, potential problems that may arise during pregnancy, and the childbirth experience (e.g. Melender, 2002). Similarly, in a group of medically high-risk women, Yali and Lobel (1999) found worries were most frequently reported about delivering preterm, physical symptoms, and labor and delivery. More recently, Biehle and Mickelson (2011) examined worries in first-time expectant parents and found that fathers worried most about money, the baby’s health, and the balance between work and home. On the other hand, mothers worried most about the baby’s health, money, and being prepared for the baby. Roesch et al. (2004) have found pregnancy-specific anxiety is predictive of a
shorter gestation period, which is less optimal for the health of the baby. It is clear that worries associated with pregnancy are related to the appraisal of stress. Furthermore, regardless of potential stressors or worries that arise with pregnancy, an expectant parent’s coping skills and resources may impact the degree to which they view the pregnancy as stressful. Expectant parents who have more financial resources, adequate social support (e.g. Teti & Gelfand, 1991), prior experiences with children (e.g. Leerkes & Burney, 2007), and efficacy about parenting tasks (e.g. Coleman & Karraker, 2003) may be less stressed about the pregnancy, as they have more resources to cope.

**Overview of Coping Theory**

One of the main ways individuals can confront and attempt to reduce both daily and chronic stress, such as those during pregnancy, is through engaging coping strategies. Coping is defined as cognitive and behavioral efforts to manage stressful situations (Smith, Wallston, & Dwyer, 2003). An individual typically engages in coping when a situation is important to them, is appraised as stressful, and is seen as exceeding their immediate ability to deal with the situation (Folkman, Lazarus, Gruen, & DeLongis, 1986; Lazarus & Folkman, 1984). Carver, Scheier, and Weintraub (1989) have expanded on Lazarus’s seminal theory of stress to include the steps of coping. Specifically, Carver and colleagues argue that in addition to primary and secondary appraisal, the third step of the process is responding to the stressor by coping and that the steps of the cycle are not always linear, but rather, an individual may cycle through all of the phases several times before resolving a threat or situation.
Regardless of the stressor an individual is experiencing, Cohen and Lazarus (1979) argue there are five goals in coping with stressful situations. These goals include: 1) reducing harmful conditions and enhancing the potential for recovery, 2) tolerating or adjusting to the negative event, 3) maintaining a positive self-image, 4) keeping an emotional equilibrium, and 5) preserving relationships with others. In thinking about potential stressors during parenthood, a baby who has colic and is difficult to soothe may create stress for new parents. The parents may appraise the situation as stressful and may cope using the goals Cohen and Lazarus propose. First, the parent may reduce the harmful condition and enhance the potential for recovery by seeking support from a doctor about which techniques are best to try to soothe the baby. Second, the parent may become more tolerant of the baby’s crying and adjust to the new task of trying to soothe the baby without getting as frustrated. Third, the parent may maintain a positive view about their ability to parent by reading about other parents who are facing the same situation and realizing that crying is not occurring because of their inability to parent successfully. Fourth, the parent may maintain emotional equilibrium by realizing that getting upset does not help the baby calm down, and they may do things for themselves so that they can remain calm around the baby. Finally, the parent may realize they need their social support network to help them get through the situation and may make time to preserve their relationships with their co-parent and friends.

While all coping strategies may have similar goals, the type of stressor an individual faces may change the way they cope. There are several ways stressors can impact an individual’s strategy of dealing with the event. When an individual is under
stress, they may attempt many different coping strategies, whether or not these particular behaviors actually help in reducing the stressful situation. For example, an individual may engage in seeking support from their social network, while also avoiding directly coping with the stressor. When an individual engages in unsuccessful coping mechanisms, they may reduce the resources they have to successfully cope with the stressor (e.g. Hobfoll, 1991).

Stress can also impact coping strategies by reducing an individual’s resources to cope. Individuals may be overwhelmed by a stressor, especially one that is chronic, and as a result be too distressed to begin the coping process (e.g. Norris & Kaniasty, 1996). If an individual learns about a chronic health problem their baby will face, it may be difficult to begin coping because there are so many different aspects of the situation they need to address. While the type of stressor can impact which coping strategies are used, the timing of the stressor can also influence how an individual chooses to cope. In the past, much of the literature examining how individuals manage stress has focused on coping after the stressor has occurred, or reactive coping. More recently, attention has been given to coping strategies utilized prior to a stressor occurring, also referred to as proactive coping. While reactive and proactive coping have many similarities, there are differences in how they interact with a stressor, which individuals utilize them, how they impact health outcomes, and how they may be used during situations such as pregnancy.

**Reactive Coping**

As stated above, reactive coping is a method of coping where an individual is attempting to deal with a stressor after it has occurred and has been appraised as stressful.
This type of coping is the most commonly studied strategy of coping in the literature and involves a series of steps that can alleviate the negative impact of a stressful event (Folkman & Lazarus, 1988; Lazarus, 1993). In reactive coping, Lazarus and Folkman (1984) identified two types of coping to manage the internal and external demands of a situation: problem-focused coping and emotion-focused coping. Problem-focused coping includes defining the problem, generating alternative solutions, and following a plan of action when the situation can be amended. In contrast, emotion-focused coping is used to reduce the emotional distress caused by the stressor. Emotion-focused coping includes avoidance, seeking emotional support, and positive reappraisal (Austenfeld & Stanton, 2004). Emotion-focused coping is traditionally utilized when an individual feels they can do nothing to change the course of the stressor and needs to focus instead on accepting the stressor and the potential ramifications of the event (Folkman & Lazarus, 1980). Emotion-focused and problem-focused coping strategies are not opposites; rather they can assist or impede each other during the process of coping. Furthermore, some research suggests all coping involves aspects of both emotion-focused and problem-focused coping (Lazarus & Folkman, 1984; Patterson & McCubbin, 1987). Therefore, the two methods of coping may be more similar than different.

Because individuals have many coping strategies at their disposal, they are constantly evaluating the stressor and deciding which coping methods to employ. In other words, coping is a dynamic transaction between a threat, appraisal of the threat, and the response to the threat (e.g. Cohen & Lazurus, 1973). While some types of coping may be consistent across a stressful event, others are not (Lazarus, 1993). Individuals who seek
social support as a coping strategy may be able to successfully use this method of coping for the duration of the stressor. However, individuals who choose to cope by avoiding a situation may be able to successfully cope using this method in the beginning, but may need to change to a different coping strategy if the stressor is not alleviated. In addition, individuals may choose to cope with stressful situations differently depending on their needs at the time and the demands of the situation. Coping strategies are not typically seen as being solely good or bad, but must be evaluated in the context the stressor is occurring (Lazarus & Folkman, 1984; see Folkman & Moskowitz, 2004 for a review). For example, in situations where active coping is possible, avoidance coping may not be an effective coping strategy because the individual is not working to accept or reduce the stressor. However, in situations where active coping is not possible or appropriate, avoidance coping can be beneficial to the individual. Those who have the best match between a situation and the coping strategy used are typically seen as coping better with the situation (see Ptacek & Gross, 1997, for a review).

Using Ptacek and Gross’s (1997) theory, those individuals who are more flexible in their utilization of coping strategies should have the best outcomes because they can adjust their coping to the stressor they are facing. While having flexible coping across different situations is important, individuals may also need to modify which coping strategies they use based on the frequency of the stressor. Some researchers have found individuals use a variety of coping strategies for different types of stressors (Folkman & Lazarus, 1980). However, others researchers have found that individuals tend to be similar in the coping strategies they use to cope with daily stressors (Stone & Neale,
Therefore, while people have a variety of coping strategies at their disposal, it may be that individuals find ways of coping that work best for them and routinely use them in managing everyday stressors. In addition to being impacted by the type and duration of the stressor, individuals are also driven to cope in different ways because of certain individual differences.

**Individual Differences in Reactive Coping**

To understand how an individual copes, one must understand how they interact with their environment and appraise certain events as being stressful (Kenny, 2000). Some of the characteristics which seem to help dictate both how the stressor is appraised and which resources are utilized are personality and individual characteristics. In a longitudinal study, researchers found that stable personality factors as well as situational factors influenced coping strategies (Terry, 1994). Specific personality characteristics, such as neuroticism, optimism, locus of control, and extraversion, have all been linked with coping strategies (e.g. Bolger, 1990; McCrae & Costa, 1986). Additional individual characteristics, such as income, education level, and mental health have also been found to be important factors in determining an individual’s coping strategy (DeLongis & Preece, 2000; Lu & Chen, 1996).

In addition to these characteristics, numerous researchers have found sex differences in the utilization of reactive coping strategies. Researchers have found women use emotion-focused coping more often, while men have been found to utilize more problem-focused strategies to deal with stressful or taxing situations (e.g., Endler & Parker, 1990). Carver and colleagues (1989) have also found sex differences in coping,
with women being more likely to seek both emotional and instrumental support and to focus on as well as vent their emotions, whereas men were more likely to report turning to alcohol to cope with stressful situations. Two theories have been developed to explain some of these differences: the socialization hypothesis and the structural hypothesis.

The *socialization hypothesis* argues gender roles encourage men and women to use different coping mechanisms to deal with stressful situations (e.g. Stokes & Wilson, 1984). Women are taught from childhood to use emotional and expressive coping styles, while men are encouraged to utilize coping that is more problem-focused or instrumentally based. On the other hand, the *structural hypothesis* argues that gender differences in coping occur because men and women encounter different stressful situations which may require different coping strategies (e.g. Folkman & Lazarus, 1980). Using this argument, women encounter more situations where emotion-focused coping is beneficial, such as relationship stress, while men are exposed to situations where action or problem-focused coping is beneficial in rectifying the stressful situation, such as work stress (Ptacek, Smith, & Zanas, 1992). Coping strategies have also been found to be differentially effective based on sex. Specifically, emotion-focused coping has been found to be more effective for women than for men in some situations (e.g. Levy-Shiff, 1999). Thus, men and women might be using different coping strategies because they feel different methods of coping work best for them.

**Reactive Coping and Pregnancy**

The transition to parenthood is one particular stressor where sex differences in coping may emerge and where the socialization versus structural hypothesis can be
tested. Pregnancy has been found to be an anxiety-provoking time period for both expectant mothers and fathers (e.g. Entwisle & Doering, 1981) and expectant parents have been found to utilize many different coping strategies to reduce the stress they experience. While fathers are becoming more involved in the transition to parenthood, pregnancy is still a period of time that is experienced differently by expectant mothers and fathers. Despite the emerging view of pregnancy and parenthood as an event that couples experience together, each parent has their own unique concerns about the impending arrival of the new baby. For expectant fathers, pregnancy may highlight the need to become more responsible, especially financially, for their expanding family. For expectant mothers, pregnancy may highlight potential changes in the marital relationship as they transition to parenthood and her focus shifts to caring for the baby. Therefore, because mothers and fathers experience pregnancy differently, it is expected that they will cope with the situation in different ways. Among mothers, Huizink et al. (2002) found that coping style preferences change over time in pregnancy, suggesting that mothers modified their coping as demands changed across the pregnancy. Near the end of pregnancy, a third of mothers preferred problem-focused coping and almost half preferred emotion-focused coping, with the remainder using both styles in equal amounts. However, less is known about the methods expectant fathers use to cope with stressors during pregnancy.

One reason the coping strategy an individual chooses is important is because different coping strategies have been linked with health outcomes. In general, problem-focused coping strategies have been related to better overall health outcomes (Penley,
Tomaka, & Wiebe, 2002). In contrast, coping by managing negative emotions, or emotion-focused coping, is typically associated with more psychological distress and experiencing maladaptive outcomes (Folkman & Lazarus, 1988). While emotion-focused coping has repeatedly been found to lead to more distress, these findings may in part be due to how emotion-focused coping is measured. Specifically, emotion-focused coping scales include many different coping strategies in the same subscale, such as approach and avoidance coping, which are sometimes confounded with distress (see Folkman & Moskowitz, 2004 for a review). The appropriateness of emotion-focused coping may depend on the duration for which it is used. Stanton et al. (2000) suggest that emotion-focused coping may be appropriate for use in the short-term. However, some individuals may attempt to use this type of coping as a long-term solution which can lead to rumination or avoiding finding a solution to directly cope with the issues at hand. While utilizing certain coping strategies may not be able to eliminate stressors, they may be helpful in other ways which may positive influence those utilizing them. In Study 1, I will examine the different types of coping strategies utilized by mothers and fathers to determine which have a positive influence on their mental health during the transition to parenthood.

Present Study: Study 1

Although prior research has examined how individuals cope with stressors, it is less clear how parents, especially fathers, utilize different coping techniques during the transition to parenthood. Study 1 will examine coping during pregnancy and at 1-month postpartum, as pregnancy and the early weeks of parenthood is a time of stress and
adjustment to the new roles for new mothers and fathers. Based on the prior literature, I proposed four hypotheses for Study 2.

**Hypothesis 1**: Mothers will engage in more reactive coping overall than fathers.

**Hypothesis 2**: Mothers will engage in more emotion-focused coping (e.g., “I talk to someone about how I feel” - seeking emotional support) while fathers would engage in more problem-focused coping (e.g., “I think about how I might best handle the problem” - planning).

**Hypothesis 3**: Different coping strategies will be utilized during pregnancy than at 1-month postpartum for both mothers and fathers.

**Hypothesis 4**: Problem-focused coping will be related to better mental health than emotional-focused coping for both mothers and fathers.
CHAPTER 2

Methods of Study 1

Participants

The sample was composed of 104 heterosexual married or cohabitating primiparous couples who participated in the Baby Transitions in Marital Exchanges Study (Baby T.I.M.E. Study). Both individuals in the couple needed to be employed at the time of the baseline interview, expecting their first child, and in their third trimester of pregnancy to be eligible to participate. Couples were also required to be fluent in English. Participants were recruited from local birthing classes and online message boards. Additionally, the snowballing technique was used to recruit participants.

The sample was primarily composed of married couples (91%). Couples on average had been married/cohabitating for 3 years ($M = 3.30$). The mean participant age was 29 years ($M = 29.02$; $SD = 4.41$), ranging from 18 to 52 years, with expectant fathers ($M = 30$; $SD = 4.77$) being significantly older than expectant mothers ($M = 28$; $SD = 3.80$; $F = [1, 206] = 10.45$, $p < .05$). The majority of the sample was White (fathers: 91%; mothers: 94%), with a college education or an advanced degree (high school = 8.7%; some college = 20.2%; college = 47.6%; advanced degree = 23.6%), and approximately 70% of the sample reported a household income of $60,000 or more. Of the 104 couples who completed the baseline interview, 90 couples completed the
interview at 1-month postpartum. Reasons for attrition included dissolution of the relationship (approximately 1%), declining to further participate in the study (approximately 2%), and unable to reach after numerous attempts (approximately 7%). We conducted descriptive analyses and did not find that those who attrited differed from those who remained in the study on any demographic or baseline study measures.

**Methods**

Expectant mothers and fathers (hereafter referred to simply as mothers or fathers) who agreed to take part in the study completed interviews in their third trimester (between 24-32 weeks of pregnancy) and at 1-month postpartum. Participants completed online questionnaires and then completed a second portion of the interview over the telephone with trained interviewers. Participants completed both the online and telephone questionnaire independent of their partner and an effort was made for both partners to complete their interviews within the same day at each wave. The combined online and phone interview took each participant approximately one hour to complete and couples were compensated $25 for each wave.

**Materials**

*Sociodemographics.* The following demographic information was collected from participants and was considered as potential control variables (See Table 1 for means): age (which ranged from 18 to 52); time living with partner (which ranged from 1 month to 12 years); relationship status (married or cohabiting), education level was categorized as some high school, high school, some college, college education, or advanced degree. Household Income represented total family income at the time of the interview and was
categorized as less than $20,000 (3.8%), $20,000-$40,000 (10.6%), $40,000-$60,000
(13.5%), $60,000-$80,000 (26.0%), $80,000-$100,000 (11.5%), $100,000-$120,000
(11.5%), and more than $120,000 (11.5%)

Coping

Reactive Coping. To measure reactive coping, a modified version of the COPE
questionnaire was used (Carver, Scheier, & Weintraub, 1989; see Appendix A for all
study measures). The questionnaire examines 13 dimensions of coping (active coping,
planning, suppression of competing activities, restraint coping, seeking instrumental
social support, seeking emotional social support, acceptance, denial, positive
reinterpretation, and turning to religion) on a scale from 0 = I usually don’t do this at all
to 3 = I usually do this a lot. Sample items include “I learn something from the
experience” and “I think about how I might best handle the problem”. A sum score of all
the items was created with higher numbers indicating more reactive coping. To examine
items relating to problem and emotion-focused coping, 6 items were utilized; with three
items measuring problem-focused coping (“I think about how I might best handle the
problem” (planning); “I do what needs to be done, one step at a time” (active coping);
and “I try to get advice from someone about what to do” (seeking instrumental support)
and three items measuring emotion-focused coping (“I talk to someone about how I feel”
(seeking emotional support), “I get upset and let my emotions out” (venting emotions),
and “I learn something from the experience” (positive reinterpretation). However, these
six items are each unique types of coping and it was not appropriate to combine them into
two scales so these items were entered into the analyses separately.
Mental Health

Anxiety. Participants’ anxiety was assessed through self-report questions from the SCL-90R (Derogatis, 1994). Participants were asked to report how they felt in the last week in regards to 10 different items (e.g. “felt nervous”; “felt so restless you could not sit still”). Possible responses ranged from 0 to 3 (0 = none/rarely (<1 day); 1 = a little (1-2 days), 2 = moderate (3-4 days), 3 = most (5-7 days) for that week). A sum score was created from the responses, with higher scores indicating higher levels of anxiety (Pregnancy: fathers: $\alpha = .83$; mothers: $\alpha = .77$; 1-Month: fathers: $\alpha = .77$; mothers: $\alpha = .82$).

Depression. To assess depressive symptomatology, the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used. Participants were asked to report how they had felt in the past week in regards to 20 different items (e.g. “felt sad”; “felt lonely”). Possible responses ranged from 0 to 3 (0 = none/rarely (< 1 day), 1 = a little (1 - 2 days), 2 = moderate (3 - 4 days), or 3 = most (5 - 7 days). A sum score was created from the responses, with higher scores indicating higher levels of depression (Pregnancy: fathers: $\alpha = .87$; mothers: $\alpha = .88$; 1-Month: fathers: $\alpha = .88$; mothers: $\alpha = .85$).

Postpartum Distress. To measure postpartum distress at 1-month postpartum, a modified version of the Postpartum Depression Screening Scale was used (PDSS; Beck & Gable, 2000). Parents were asked 11 statements in regards to the past week such as “I felt like so many other parents were better than me” on a scale of 1 = strongly disagree to
5 = strongly agree. A sum score of the items was created with higher numbers indicating higher postpartum distress (1-Month Postpartum: fathers = $\alpha = .80$; mothers = $\alpha = .86$).

**Overview of Analyses**

Prior to testing the main hypotheses, frequency distributions on all variables were examined. In addition, basic regressions were performed on the demographic and personal study variables (e.g., age, income, education, time living with partner) to determine which variables were significantly related to predictor and outcome variables and thus needed to be controlled for in the ANOVA analyses. Only time living with partner was found to be a significant covariate and was entered into all the analyses. For Hypothesis 1 and 2, ANCOVA analyses were used to examine whether or not there were sex differences in the utilization of coping strategies across the transition to parenthood. For Hypothesis 3, paired sample t-tests were used to examine the potential differences between coping during pregnancy and at 1-month postpartum. Finally for Hypothesis 4, multiple regression analyses were conducted to determine whether reactive coping has a main effect on mental health outcomes. The results of Study 1 analyses are discussed below.
CHAPTER 3

Results of Study 1

Descriptive Statistics

With respect to the major study variables (see Table 1 for study variable means, standard deviations, and ranges), the parents in the current study were not highly distressed as both mothers and fathers reported only moderate levels of depression and anxiety, as seen in the average across the two time points of the study (Depression:
Mothers: $M = 11.73$; Fathers: $M = 8.95$; Anxiety: Mothers: $M = 4.41$; Fathers: $M = 3.83$). In order to examine gender differences in anxiety, depression, and postpartum distress, I conducted a repeated measures MANCOVA (with gender as the within-subjects factor), controlling for years in the relationship. The overall multivariate test of gender differences was significant ($F (5, 86) = 3.37, p < .01$). Examination of the Bonferroni pairwise comparisons on within-subjects mean differences (adjusted for the covariate of years in the relationship) revealed significant gender differences with mothers being more depressed at pregnancy and 1-month postpartum than fathers. Additionally, mothers reported more postpartum distress at 1-month postpartum than fathers.

Depression and anxiety were examined for significant differences across time using paired t-tests. Fathers reported significantly more anxiety during pregnancy than at
1-month postpartum ($t(91) = 2.14; p < .05$); however, there was no significant difference between pregnancy and 1-month for depression ($t(91) = -1.38; p = .17$). Mothers also reported significantly more anxiety during pregnancy than at 1-month postpartum ($t(92) = 3.17; p < .01$), but, like fathers, there was no significant difference for depression across the two time points for mothers ($t(92) = .19; p = .85$).

**Sex Differences in Coping**

In order to examine gender differences in coping, I conducted a repeated measures MANCOVA (with gender as the within-subjects factor), controlling for years in the relationship. The overall multivariate test of gender differences was significant for overall coping ($F(2, 90) = 3.44, p < .05$). Additional examinations of Bonferroni pairwise comparisons on within-subjects mean differences (adjusted for the covariates of years in the relationship) revealed significant gender differences with mothers using more overall coping than fathers during pregnancy (Mothers: $M = 19.63$; Fathers: $M = 18.09$) and at 1-month postpartum (Mothers: $M = 21.37$; Fathers: $M = 18.39$). When looking at the different types of coping assessed with the COPE, again using repeated measures MANCOVA analyses, mothers and fathers significantly differed on many of the strategies of coping (see Table 3 for results) ($F(13, 90) = 4.20, p < .001$). During pregnancy, mothers engaged in significantly more venting about the problem, seeking emotional support, and seeking instrumental support. Fathers, on the other hand, engaged in more suppression of competing activities and using humor.

There were also significant gender differences at 1-month postpartum ($F(13, 76) = 2.60, p < .01$), with mothers engaging in more active coping, seeking emotional
support, seeking instrumental support, venting about the problem, planning, and suppression of competing activities than fathers. However, fathers engaged in more mental disengagement than mothers at 1-month postpartum.

**Differences in Coping from Pregnancy to 1-Month Postpartum**

In addition to examining differences between mothers and fathers, I also examined differences in coping techniques from pregnancy to 1-month postpartum. Mothers were found to engage in significantly more overall coping at 1-month postpartum ($M = 21.35$) than during pregnancy ($M = 19.59$) ($t(93) = -4.08; p < .001$). For fathers, there was no significant difference in overall coping at pregnancy ($M = 18.09$) and 1-month postpartum ($M = 18.39$) ($t(92) = .55; p = .58$).

In regards to specific coping techniques, for fathers, positive reframing ($p < .05$), mental disengagement ($p < .001$), acceptance ($p < .001$), active coping ($p < .001$), behavioral disengagement ($p < .05$), and using humor ($p < .001$) were all significantly different from pregnancy to 1-month postpartum (see Table 4 for results). Fathers engaged in more mental and behavioral disengagement during pregnancy than at 1-month postpartum. On the other hand, fathers engaged in more positive reframing, active coping, acceptance, and using humor at 1-month postpartum than during pregnancy.

For mothers, positive reframing ($p < .001$), active coping ($p < .001$), denial ($p < .01$), behavioral disengagement ($p < .001$), seeking emotional support ($p < .01$), mental disengagement ($p < .001$), planning ($p < .001$), humor ($p < .001$), acceptance ($p < .001$), and suppression of competing activities ($p < .001$) were all significantly different from pregnancy to 1-month postpartum. Mothers engaged in more mental and behavioral
disengagement, denial, and seeking emotional support during pregnancy than at 1-month postpartum. On the other hand, mothers engaged in more positive reframing, planning, suppression of competing activities, active coping, acceptance, and humor at 1-month postpartum than during pregnancy.

**Coping Strategies and Mental Health**

While prior literature has identified some differences in the impact of coping on mental health, little is known about the influence of different coping strategies on first-time mothers and fathers. For the current analyses, I conducted three sets of multiple regressions to examine the cross-sectional association of coping strategies on mental health during pregnancy and 1-month postpartum, as well as an association longitudinally from pregnancy to 1-month postpartum. Analyses were conducted separately for mothers and fathers, as the prior literature suggests the coping process may not work the same in both parents. Moreover, I was interested in the unique processes of emotion and problem-focused coping strategies on mental health. Because the COPE scale was used, Carver does not recommend splitting the measure into two subscales. In light of this, six of the COPE items most relating to emotion and problem-focused coping were used for the following analyses and I conducted my regression analyses with the six variables entered simultaneously into the model. Prior to my primary analyses, an initial model was examined to look for potential covariates. The only significant covariate was the variable of time living with partner which was entered into all the following regression models as a covariate.
Cross-sectional Analyses

Pregnancy. For fathers, analyses found that venting emotions was related to more depression (β = .23; p < .05) and more anxiety (β = .33; p < .001) during pregnancy, whereas seeking instrumental support was related to less depression during pregnancy (β = -.26; p < .05). For mothers, however, seeking instrumental support was related to more anxiety during pregnancy (β = .23; p < .05); additionally, venting emotions was related to marginally more anxiety during pregnancy (β = .18; p < .08).

1-month postpartum. For fathers, analyses found that venting emotions was related to more anxiety (β = .38; p < .001), more depression (β = .23; p < .05), and more postpartum distress (β = .31; p < .001) at 1-month postpartum. On the other hand, active coping was related to less anxiety (β = -.25; p < .05) and less postpartum distress (β = -.23; p < .05) at 1-month postpartum for fathers. As with fathers, analyses on mothers found venting emotions was related to more depression (β = .31; p < .01), more postpartum distress (β = .44; p < .001), and marginally more anxiety (β = .20; p = .07) at 1-month postpartum for mothers. Moreover, seeking instrumental support related to more depression at (β = .31; p < .01) and marginally more anxiety (β = .23; p = .06) at 1-month postpartum. On the other hand, seeking emotional support was related to less maternal depression at 1-month postpartum (β = -.31; p < .01).

Longitudinal analyses

Pregnancy to 1-month postpartum. For fathers, analyses examining the longitudinal impact of coping strategies during pregnancy on mental health at 1-month postpartum, while controlling for mental health at pregnancy, found only venting
emotions during pregnancy was related to more anxiety (β = .35; p < .05), more depression (β = .25; p < .05), and more postpartum distress (β = .42; p < .001) at 1-month postpartum. No significant longitudinal effects were found for mothers' coping during pregnancy on their mental health at 1-month postpartum.
While the literature on stress and coping is abundant, less is known about coping strategies that first-time mothers and fathers use during pregnancy and the first month of parenthood. The transition to parenthood is a time of uncertainty and stress, and while it is assumed that coping is occurring during this time, little prior literature exists on the specific coping strategies that are being utilized during this transition. Due to this void in the prior literature, the primary goals of Study 1 were to examine sex and time differences in the utilization of coping strategies, as well as the influence of different coping strategies on mental health outcomes. The current study found both mothers and fathers utilized a plethora of coping techniques to deal with the stressors of pregnancy and early parenthood. Moreover, mothers and fathers utilized different coping strategies, and different techniques for coping were used during pregnancy and in the postpartum period. Finally, certain techniques were found to be related to better mental health outcomes while others were related to worse mental health outcomes.

**Sex Differences in Coping**

In regards to coping, mothers reported using significantly more reactive coping strategies overall than fathers both during pregnancy and at 1-month postpartum. Mothers
and fathers were also found to be significantly different on many of the specific coping strategies they utilized. During pregnancy, mothers engaged in significantly more venting about the problem and seeking both emotional and instrumental support, whereas fathers engaged in more suppression of competing activities and using humor. As expected, mothers engaged in more emotion-focused coping strategies while, in general, fathers engaged in more techniques to avoid distractions or make light of the situation. At 1-month postpartum, mothers engaged in more active coping, seeking emotional and instrumental support, venting about the problem, planning, and suppression of competing activities than fathers. However, fathers engaged in more mental disengagement than mothers at 1-month postpartum. At 1-month postpartum, mothers seem to be attempting to use numerous different coping strategies to deal with their stress and are engaging in more coping overall than fathers. In this study, the stressor of parenthood was held constant. Rather than studying couples encountering different daily stressors, expectant mothers and fathers who were encountering a specific transitional stressor (i.e. becoming a parent) were recruited to participate in the current study. In light of the fact that both mothers and fathers were encountering the same stressful situation but were found to use different coping strategies, the current study lends support for the socialization hypothesis (e.g. Stokes & Wilson, 1984). The socialization hypothesis suggests men and women have been socialized to cope differently with stressful situations. However, because both pregnancy and the first month of parenthood have the opportunity to create unique stressors for mothers and fathers, they may be utilizing different strategies to face the unique demands in their life – thus structural hypothesis cannot be ruled out (e.g.
Folkman & Lazarus, 1980). The structural hypothesis argues that sex differences in coping occur because men and women encounter different stressors. Thoits (1986) argues that it is difficult to truly compare men and women because few roles are truly the same for each sex. Thoits' argument is especially true for the role of parent and future studies should attempt to examine the types of stressors mothers and fathers report encountering during the transition to parenthood to more definitively determine if differences in coping are a result of gender socialization in the usage of coping mechanisms or differences in stressors encountered during the transition to parenthood.

**Coping Differences from Pregnancy to Postpartum**

In addition to differences in coping between mothers and fathers, coping strategies were found to change from pregnancy to 1-month postpartum for both parents. These findings expand on prior studies (e.g. Huizink et al., 2002), which found that mothers' preferences for different coping styles changed across pregnancy. In the current study, fathers engaged in more mental disengagement and behavioral disengagement during pregnancy than at 1-month postpartum. Additionally, fathers engaged in more positive reframing, active coping, acceptance, and using humor at 1-month postpartum than during pregnancy. These results suggest fathers are using strategies to disengage or distance themselves from their stress during pregnancy while at 1-month postpartum fathers are using more strategies to accept and change the way in which they are viewing their stressor. For fathers, the baby is something they can distance themselves from more so during pregnancy because they are not physically pregnant; however, once the baby arrives it is more difficult to ignore changes and stressors in their life from having a baby.
Similar to fathers, mothers engaged in more mental disengagement, behavioral disengagement, denial, and seeking emotional support during pregnancy than at 1-month postpartum. Mothers also seem to be utilizing strategies during pregnancy to distance them from the stress, but they also seek out emotional support to help alleviate their distress during pregnancy. However, mothers engaged in more positive reframing, planning, suppression of competing activities, active coping, acceptance, and humor at 1-month postpartum than during pregnancy. Again, similar to fathers, mothers are using more active methods of coping at 1-month postpartum to accept and deal with the stressors they are facing. These results suggest coping strategies may be more state-based, during a stressor such as the transition to parenthood. It seems likely that coping strategy utilization may also continue to change across parenthood as new stressors occur. While I was interested in pregnancy and the immediate adjustment to parenthood, in light of the current findings, future studies should examine potential changes in the utilization of coping strategies across a longer duration of parenthood to determine if coping continues to change.

**Coping Strategies and Mental Health**

Overall, the findings regarding the influence of coping strategies on mental health found certain coping strategies had a significant influence on mental health cross-sectionally for mothers and both cross-sectionally and longitudinally for fathers. Interestingly, the emotion-focused coping strategy of venting emotions was related to more negative mental health outcomes in all analyses for fathers and was also related to more negative mental health outcomes for mothers cross-sectionally during both
pregnancy and at 1-month postpartum. Seeking emotional support was related to better mental health for mothers at 1-month postpartum. This result suggests that emotion-focused coping techniques are detrimental for fathers and differently influential for mothers depending on the technique being utilized. Interestingly, venting emotions was found to be negative for both mothers and fathers suggesting that some techniques have negative consequences, regardless of the sex of the parent. Venting emotions may be detrimental because parents are complaining about stressors they are encountering which may lead to them focusing on (i.e. ruminating about) the stressor rather than looking for possible solutions.

In addition to emotion-focused coping, problem-focused coping strategies were also examined. The problem-focused coping strategy of seeking instrumental support was related to better mental health for fathers during pregnancy, but interestingly to worse mental health for mothers during pregnancy and at 1-month postpartum. Additionally, active coping was related to better mental health for fathers at 1-month postpartum. These findings suggest that problem-focused coping is beneficial to fathers’ mental health but again perhaps is not as beneficial for mothers’ mental health outcomes. These findings from fathers partially support my hypothesis and findings from other studies such as Penley, Tomaka, and Wiebe (2002), which suggested that problem-focused coping should be more beneficial to mental health than other types of coping.

Perhaps these unique differences for mothers and fathers in how beneficial certain coping strategies are to mental health has to do with the stressors that each partner has while becoming a parent. Prior literature (e.g. Ptacek & Gross, 1997; Folkman &
Lazarus, 1980) has suggested that individuals who are more flexible in their utilization of coping strategies should have the best outcomes because they can modify their coping based on the situation at hand. This advantage of flexibility in coping seems especially important when encountering a new life transition such as becoming a parent. In the current study, mothers were found to engage in more overall coping at 1-month postpartum than during pregnancy. However, there was not a significant difference between the two time points for fathers. During the first months of parenthood, mothers and fathers are adjusting to their new roles and mothers are also dealing with the physical ramifications of being pregnant, healing from the delivery, and often adjusting to breastfeeding. These physical changes mean that mothers are dealing with an additional physical burden while adjusting to parenthood and therefore may be coping differently than fathers. Fathers, on the other hand, often do not receive as much time off work as mothers after their baby is born and may be balancing their adjustment to parenthood while also attempting to find a work/home balance that works best for them. This is not to say that mothers do not also encounter these balance adjustments, but the data in the current study at 1-month postpartum may not be reflecting these adjustments for mothers (as most mothers take six weeks of maternity leave). Because these potential factors make the transition slightly different for mothers and fathers, it is not unexpected that they are coping in unique ways and that these ways of coping are differentially impacting their mental health. These results support examining mothers and fathers separately and reiterate the importance of examining coping during transitional stressors such as parenthood.
Limitations and Applied Implications of Study 1

While the current study helps to expand the literature in numerous ways, there are a few limitations that must be addressed. One limitation is the homogenous sample. Because the sample consisted primarily of white, middle-class couples transitioning to parenthood, it is unclear how these results will generalize to other couples. Middle-class parents have more resources to deal with the transition than those with lower incomes or less education. Also, multiparous parents’ coping styles are likely to be shaped by their experiences with their prior children. A second limitation is that I only examined the immediate transition to parenthood. While I was primarily interested in the initial adjustment to parenthood, future studies need to examine the implications of long-term coping during parenthood. Finally, the coping measure that I used did not specifically break down into emotional and problem-focused coping sub-scales. Future studies may want to use an alternative coping measure which more specifically measures these dimensions of coping to examine any potential sex and time differences. Even with these limitations, my study is novel in that it examined sex differences in reactive coping in both mothers and fathers. Hopefully, these results will lay the foundation for future dyadic studies of mothers and fathers with coping, as well as potentially help to create pregnancy interventions to teach parents how to cope with the stressors of parenthood.
CHAPTER 5

STUDY 2

Introduction to Study 2

While there is an abundance of literature examining coping, most research has ignored the temporal relationship of coping with the occurrence of the stressor. Rather than only occurring after a stressor has been encountered, coping can help us deal with events of the present and future (Greenglass, 2002). Thus, coping can also be conceptualized as something that can take place in anticipation of a stressor occurring. Schwarzer and Knoll (2003) have identified three types of future-oriented coping: anticipatory, preventative, and proactive coping. Anticipatory coping refers to coping that occurs in response to a critical event that is likely to occur in the near future. Preventative coping is coping with an uncertain threat that may potentially occur in the distant future. In contrast, proactive coping involves accumulating resources for an upcoming challenge that may potentially provide self-growth, where the individual can learn more about themselves. While these three methods of future-oriented coping may be useful in coping with an anticipated stressor, Study 2 of the proposed dissertation will focus on proactive coping in expectant mothers, as the transition to parenthood is both a period of potential stress and a life transition that provides the opportunity for individuals to learn more about themselves.
Proactive Coping

Schwarzer and Knoll (2003) have identified proactive coping as involving the accumulation of resources for an upcoming stressor; however, proactive coping is also a mix of coping and self-regulation. Specifically, individuals are attempting to both reduce and minimize demands viewed as posing a potential threat, harm, or loss to them, while also modifying their behavior to move toward personal goals and create more balance in their life (Carver & Scheier, 1990; Lazarus & Folkman, 1984). In proactive coping, individuals see the potential risks, demands, and opportunities in the future but do not appraise them as being specifically threatening or harmful. For example, an individual may be close to losing their job, but rather than being upset about the loss of their current job they may view their situation as an opportunity for growth in a new career. Therefore, this individual realizes not only the potential demands of the situation, but also the opportunities to make a negative circumstance work for them through providing growth. Proactive coping has also been conceptualized as a method of assessing personal goals for the future and working to protect them (Schwarzer & Taubert, 2002). This proactive coping model includes five components: 1) building a reserve of resources, 2) recognition of potential stressors, 3) appraisal of potential stressors, 4) preliminary coping, and 5) eliciting feedback about their efforts to cope with potential stressors (see Folkman & Moskowitz, 2004, for a review). This model of proactive coping can be applied to many situations, including expectant parents preparing for the arrival of their child. Before the baby is born, parents build a reserve of tangible goods, such as money and baby items, to prepare for the baby. Expectant parents also recognize potential
stressors that may occur and appraise them, such as the balance they will need to find between their work and home life. Parents can begin coping by preparing the nursery and buying items that will help meet the baby’s needs. Expectant parents may seek feedback about their efforts from their parents or friends with children, who may help them identify things they still need to do.

Proactive coping has been studied in a variety of situations. Greenglass (2002) examined the impact proactive coping can have on achievement situations such as individuals managing workplace stressors. He found that individuals who engaged in more planning, goal setting, and seeking of social support reported more satisfaction with their lives and a greater perception that they were treated fairly at work. Therefore, proactive coping may be able to prevent workplace stressors and the potential ramifications from long-term achievement stress such as burnout and mental distress. Another situation where proactive coping has been found to be advantageous is that of stigma and discrimination; specifically, where individuals are able to anticipate, identify, and react to threatening situations of stigma and discrimination. Mallet and Swim (2005) found that women who perceived themselves as overweight and appraised the potential for body size stigma during a video dating experiment engaged in more preparation for their videotaped introductions. Interestingly, women who prepared more for their introduction were rated as more intelligent, competent, and likeable. Therefore, by proactively coping with the situation of perceived size-based discrimination, women were able to alter the impression they made upon others.
Another situation which has been examined in the proactive coping literature is that of individuals with a high risk for familial diseases. When these individuals obtain genetic testing to learn if they are predisposed to develop certain diseases, they can begin to proactively cope before the disease has fully progressed. For example, these individuals can engage in coping by accumulating financial resources and enhancing their support networks before a health emergency arises. In addition, in an effort to reduce their risks, these individuals can work to avoid behaviors which may be linked with the development of a disease to which they are genetically predisposed. In a study examining proactive coping after testing for familial melanoma risk, researchers found that after learning of a genetic predisposition for developing melanoma, patients were more likely to increase the frequency and thoroughness of skin examinations, as well as the frequency of professional examinations for skin cancer (Aspinwall, Leaf, Kohlmann, Dola, & Leachman, 2008). By proactively coping with potential cancer risks, individuals can engage in behaviors that may reduce their risk of developing skin cancer. While researchers have identified numerous situations where proactive coping can be beneficial to an individual facing a potential stressor, the question remains as to how proactive coping is different from other methods of coping.

Despite the fact that reactive and proactive coping are similar in that they are both attempting to reduce the negative implications of a stressor, Aspinwall and Taylor (1997) discuss three specific ways in which proactive coping is different than other types of coping. First, proactive coping is used prior to traditional coping as a means to accumulate resources to prepare for the stressor, rather than after a stressor occurs when
specific needs are addressed through reactive coping strategies. For example, when a
couple is expecting a baby, the expectant parents may be able to save money during
pregnancy for added expenses or medical bills that will arise when the baby comes. If
parents do not anticipate the additional financial responsibilities a baby brings, they could
easily get behind on bills, which would create additional stress for the parents. Second,
different skills are required to cope with an imminent stressor as opposed to one that has
already occurred. In the example of expecting a baby, during pregnancy the expectant
parents begin to gather information about how to care for the baby. Parents who
proactively cope by gathering information during pregnancy need the skills to gather
information from many sources and synthesize it so that they are prepared when stressful
situations arise in the postpartum period. However, parents who reactively cope by
seeking information only as situations arise in the postpartum period need to know where
the best resources are so that they can get needed information as quickly as possible to
handle a specific situation. Therefore, the temporal nature of the coping may require
different skills. Third, various coping strategies are differentially effective with proactive
coping than with coping reactively to an event. If a parent proactively copes for
parenthood by taking baby preparation classes and learns what to do in an emergency,
they are more prepared if an emergency arises with the baby. However, if a parent waits
to reactively cope with a dangerous situation, they may not have the knowledge to
perform CPR or to help a baby that is choking, and may not be able to seek out the
needed information in time to help the baby. Therefore, while the parents in both
situations are coping with the emergency, the time at which they learn strategies, such as CPR, can alter the outcome of the situation.

Proactive coping has been of interest to researchers due to its positive effects on well-being (e.g. Folkman & Moskowitz, 2004; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). Specifically, proactive coping has been found to be related to less depression and more life satisfaction (see Greenglass, 2002, for a review). It is well established that there is a link between stress and negative mental health outcomes; therefore, being able to prevent an event from turning into a stressor should positively impact an individual’s mental health. Therefore, based on the literature, it seems that proactive coping during pregnancy should lead to better mental health. However, it may be that those individuals who engage in proactive coping too much during pregnancy may have increased anxiety because of their concern for future problems. Specifically, because pregnancy is a situation where expectant mothers may be continuously preparing for numerous stressful situations that may or may not occur it may be possible to engage in excessive proactive coping that may increase anxiety rather than reduce it. However, no studies, to my knowledge, have looked at this potential problem with proactive coping.

One issue that has hindered research on proactive coping is measurement. Some studies have taken subscales from Carver and colleagues (1989) COPE inventory, such as planning, seeking instrumental support, and avoidance, as a proxy for proactive coping (e.g. Ouwehand, De Ridder, & Bensing, 2006); however, this measure does not completely capture all the dimensions of proactive coping. One of the measures most
commonly used to evaluate proactive coping more thoroughly is the Proactive Coping Inventory (Greenglass, Schwarzer, & Taubert, 1999). The Proactive Coping Inventory consists of seven separate subscales, including: proactive coping, reflective coping, strategic planning, preventative coping, instrumental support seeking, emotional support seeking, and avoidance coping. The proposed dissertation will utilize the preventative subscale of the Proactive Coping Inventory (PCI; Greenglass, Schwarzer, & Taubert, 1999) to measure proactive coping. This subscale most accurately assesses proactive coping in the way that Aspinwall and Taylor (1997) discuss the construct. This way of measuring proactive coping fits best with the way proactive coping is discussed in the current dissertation and has also been used by in other studies to assess proactive coping (e.g. Sohl & Moyer, 2009).

**Individual Differences in Proactive Coping**

Individual differences have been identified as impacting the ability to effectively utilize proactive coping strategies (Ouwehand, de Ridder, & Bensing, 2006). For example, it may be easier for individuals of the middle or upper social classes to utilize proactive coping because they have a surplus of resources and use these assets to prepare for future events (e.g. Aspinwall & Taylor, 1997; Ouwehand, de Ridder, & Bensing, 2009). In addition, individuals who are cognitively overloaded because they are ruminating on this or other current events may not have the ability to accurately recognize an imminent stressor, and therefore may not be able to proactively cope for it (Kruglandski & Webster, 1996). Another characteristic found to be related to proactive coping is that of perceived control. Whether or not an individual feels they are capable of
influencing their environment has been linked with more active problem-solving (Greenglass & Fiskandenbaum, 2009). Typically, if an individual feels they can control their situation and reduce threats and challenges they encounter, they are more likely to try to actively engage in attempts to reduce the impact of an anticipated stressor (Schwarzer, 1993). Therefore, the more internal an individual’s locus of control is the more proactive coping they should engage in. However, to my knowledge, no studies have specifically looked at locus of control with proactive coping. In addition, optimism has been found to be helpful in facilitating proactive coping (Aspinwall & Taylor, 1997; Sohl & Moyer, 2009), as optimism may be useful in believing that one’s efforts today can have a positive impact on events in the future. While optimism appears to be related to individual differences in proactive coping, it has not been examined with the transitional stressor of parenthood. While the literature is beginning to examine proactive coping and potential individual differences, the proposed dissertation will expand on this literature by systematically examining which mothers are more likely to engage in proactive coping, and how proactive coping may impact their mental health during pregnancy and in the postpartum period.

**Present Study: Study 2**

The current study will first examine how proactive coping during pregnancy impacts expectant mothers’ mental health. Based on the prior literature, I proposed two hypotheses for Study 2.
**Hypothesis 1**: Proactive coping during pregnancy will be related to better mental health; however, there may be a curvilinear relationship between proactive coping and mental health.

**Hypothesis 2**: Individuals with higher internal locus of control, more optimism, and less rumination will engage in more proactive coping.
Sample

The sample was composed of 118 heterosexual married or cohabitating mothers that were primiparous. Mothers needed to be expecting their first child and in their third trimester of pregnancy to be eligible to participate. Mothers were also required to be fluent in English. Participants were recruited from local birthing classes and online message boards. Additionally, the snowballing technique was used to recruit participants.

The sample was primarily composed of married mothers (91%). Mothers on average had been married/cohabitating for 3 years (See Table 5 for demographic information). The mean participant age was 29 years, ranging from 20 to 42 years. The majority of the sample was White (92%), with a college education or an advanced degree, and approximately 70% of the sample reported a household income of $60,000 or more. Of the 118 mothers who completed the baseline interview, 105 mothers completed the interview at 1-month postpartum (89% retention). Mothers who attrited were unable to be reached after numerous attempts. Descriptive analyses were conducted and no differences were found between those who attrited and those who remained in the study on any demographic or baseline study measures.
Methods

Mothers who agreed to take part in the study completed interviews in their third trimester (between 24-32 weeks of pregnancy) and at approximately 1-month postpartum (between 4-6 weeks postpartum). Participants completed questionnaires online through a website created for the study. The online interview took each participant less than 30 minutes to complete at each wave of the study. Mothers who completed each wave were entered into a raffle for $200 in gift cards.

Materials

Sociodemographics. The following demographic information was collected from mothers and considered as potential control variables: age (range from 20 to 42 years); time living with partner (range from 1 month to 14 years); relationship status (married or cohabiting), education level was categorized as some high school, high school, some college, college education, or advanced degree. Household Income represented total family income at the time of the interview and was categorized in seven categories from as less than $20,000 to more than $120,000. See Table 5 for sample descriptive.

Mental Health

Anxiety. Participants’ anxiety was assessed through self-report questions from the SCL-90R (Derogatis, 1994). Participants was asked to report how they felt in the last week in regards to 10 different items (e.g. “felt nervous”; “felt so restless you could not sit still”). Possible responses ranged from 0 to 3 (0 = none/rarely (<1 day); 1 = a little (1-2 days), 2 = moderate (3-4 days), 3 = most (5-7 days) for that week). A sum score was
created from the responses, with higher scores indicating higher levels of anxiety
(Pregnancy: $\alpha = .75$; 1-Month: $\alpha = .85$).

**Depression.** To assess depressive symptomatology, the Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used. Participants were asked to report how they had felt in the past week in regards to 20 different items (e.g. “felt sad”; “felt lonely”). Possible responses ranged from 0 to 3 ($0 = \text{none/rarely (< 1 day)}, 1 = \text{a little (1 - 2 days)}, 2 = \text{moderate (3 - 4 days), or 3 = most (5 - 7 days)}}$. A sum score was created from the responses, with higher scores indicating higher levels of depression (Pregnancy: $\alpha = .81$; 1-Month: $\alpha = .76$).

**Proactive Coping.** Proactive coping was assessed using the *preventative* subscale of the Proactive Coping Inventory (PCI; Greenglass, Schwarzer, & Taubert, 1999). This subscale most accurately assesses proactive coping in the way that Aspinwall and Taylor (1997) discussed the construct and has also been used by other authors to assess proactive coping (e.g. Sohl & Moyer, 2009). A sample item is “I plan my strategies to change a situation before I act” which is answered on a scale from 1 = not at all true to 4 = completely true. A sum score of the items was created with higher numbers indicating more proactive coping (Pregnancy: $\alpha = .83$; 1-Month: $\alpha = .82$).

**Locus of control.** To measure locus of control, the Locus of Control (LOC, Kessler et al., 1994) was used. The LOC is an 11-item questionnaire that measures the degree to which individuals feel in control of their lives. A sample item is “My life is determined by my own actions,” which is answered on a scale from not at all true = 1 to
very true = 4. A sum score of the items was created with higher numbers indicating feeling more internal locus of control (Pregnancy: $\alpha = .60$; 1-Month: $\alpha = .64$).

*Rumination.* A modified version of the Rumination Responses Scale (RRS; Treynor, Gonzalez, & Nolen-Hoeksema, 2003) was used to measure rumination. A sample item is “How often do you think about “What am I doing to deserve this?” when feeling down, sad or depressed?,” which is answered on a scale from 1 = almost never to 4 = almost always. A sum score of the items was created with higher numbers indicating that participants engage in more rumination (Pregnancy: $\alpha = .78$; 1-Month: $\alpha = .75$).

*Optimism.* The Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994) is a brief, 6-item measure of optimism. Sample items include “At uncertain times, I usually expect the best” and “I rarely count on good things happening to me” which was answered on a scale from 0 = strongly disagree to 4 = strongly agree. A sum score of the items was created with higher numbers indicating that participants are more optimistic (Pregnancy: $\alpha = .79$; 1-Month: $\alpha = .84$).

**Overview of Analyses**

Prior to testing the main hypotheses, frequency distributions on all variables were examined. Basic regressions were performed on the major demographic study variables (e.g., age, income, education, years with partner, pregnancy risk variables) to determine which variables were significantly related to predictor and outcome variables and thus needed to be controlled for in the analyses. In the current analyses, only income was found to be a significant covariate and was therefore controlled for in all analyses. To examine Hypothesis 1, multiple regression analyses were used to determine whether
proactive coping had a main effect on mental health. In Hypothesis 1, I predicted proactive coping during pregnancy should lead to better mental health. However, it may be that those individuals who engage in proactive coping too much during pregnancy may have increased anxiety because of their concern for future problems. In other words, there may be a curvilinear relationship between proactive coping and mental health, such that engaging in a low or high level of proactive coping may negatively impact mental health, while engaging in a moderate amount of proactive coping may be the most advantageous for mental health outcomes. Therefore, in addition to examining potential linear association, a squared term for the proactive coping measure was entered into the last block of the regression in addition to the regular term to test for a curvilinear relationship. To examine Hypothesis 2, multiple linear regression analyses were used to determine if locus of control, rumination, or optimism had a main effect on proactive coping. The results of Study 2 analyses are discussed below.
CHAPTER 7

Results of Study 2

Descriptive Statistics

With respect to the major study variables (see Table 5 for study variables means, standard deviations, and ranges), the mothers in the current study were not highly distressed and on average only reported moderate levels of depression ($M = 15.79$) and anxiety ($M = 3.55$) across the two time points. Depression and anxiety were examined for significant differences across time using paired t-tests. Mothers reported similar levels of anxiety ($t(105) = -0.46; p > .05$) and depression ($t(105) = -0.30; p > .05$) during pregnancy and at 1-month postpartum. In regards to proactive coping, mothers reported significantly more proactive coping at 1-month postpartum than during pregnancy ($t(105) = -0.10; p < .01$). Additionally, mothers reported having more optimism at 1-month postpartum than during pregnancy ($t(105) = -4.00; p < .001$) and stronger internal locus of control at 1-month postpartum than during pregnancy ($t(105) = -3.72; p < .001$). There was not a significant different between pregnancy and 1-month postpartum in regards to reported rumination ($t(105) = 0.00; p > .05$).
Predictors and Correlates of Proactive Coping

The literature on proactive coping is relatively new and little is known about predictors of proactive coping, especially during the transition to parenthood. In light of this, for the current analyses, I conducted multiple regressions (controlling for income) to examine the cross-sectional association of optimism, rumination, and locus of control with proactive coping at the same time point during pregnancy and at 1-month postpartum, as well as longitudinally from pregnancy to 1-month postpartum.

Cross-sectional Analyses

Pregnancy. During pregnancy, mothers who reported more internal locus of control also reported engaging in significantly more proactive coping during pregnancy ($\beta = .24; p < .01$). Additionally, mothers who reported being more optimistic reported engaging in marginally more proactive coping during pregnancy ($\beta = .16; p = .07$). However, mother’s reported level of rumination was not found to be significantly related to how much they engaged in proactive coping during pregnancy ($p = .44$).

1-month. Similar to results obtained for mothers during pregnancy, at 1-month postpartum mothers who reported more internal locus of control reported engaging in significantly more proactive coping at 1-month postpartum ($\beta = .29; p < .01$), and mothers who reported being more optimistic reported engaging in marginally more proactive coping at 1-month postpartum ($\beta = .17; p < .08$). Also, as during pregnancy, mother’s reported level of rumination was not found to be significantly related to proactive coping at 1-month postpartum ($p = .47$).
Longitudinal Analyses

In addition to examining the relationship between optimism, rumination, and locus of control with proactive coping concurrently, longitudinal analyses were also conducted using multiple regression analyses controlling for proactive coping during pregnancy and income. No significant effects were found for mother’s reported level of internal locus of control ($p = .21$), rumination ($p = .57$), or optimism ($p = .27$) during pregnancy on levels of proactive coping at 1-month postpartum.

Proactive Coping and Mental Health

While prior literature has identified a relationship between coping and mental health outcomes (e.g. Folkman & Moskowitz, 2004; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000), little is known about the influence of proactive coping strategies on mother’s anxiety and depression during pregnancy and the early postpartum period. For the current analyses, I conducted multiple regressions to examine the influence of coping strategies on mental health concurrently during pregnancy and 1-month postpartum and longitudinally from pregnancy to 1-month postpartum. Age and income were found to be significant covariates and were entered into the first block of all models. In the longitudinal models, mental health during pregnancy was also entered into the first block of the model. Proactive coping was entered in the second block to examine the potential linear relationship between proactive coping and mental health. In addition to examining a linear relationship between proactive coping and mental health, I also wanted to examine the potential curvilinear relationship between proactive coping and mental health.
health. To examine this potential relationship, a squared term of the proactive coping variable was entered in the last block of the regression analyses.

**Cross-sectional Analyses**

*Pregnancy.* During pregnancy, no significant linear relationship was found between how much proactive coping they reported engaging in during pregnancy and their reported level of anxiety ($\beta = -.06; p = .50$). However, a marginal curvilinear relationship was found for mothers between their reported proactive coping and anxiety during pregnancy ($\beta = 1.89; p = .08$). While this marginal relationship seemed to be in the hypothesized direction, with moderate levels of proactive coping being related to the least amount of anxiety, the pictorial representation of this relationship was somewhat ambiguous due to the marginal nature of the findings. In regards to depression, a marginal linear relationship was found for mothers between their reported level of proactive coping during pregnancy and their reported depression during pregnancy ($\beta = -.17; p = .06$), such that mothers who engaged in more proactive coping during pregnancy also reported being less depressed. However, no significant curvilinear relationship was found for proactive coping and depression during pregnancy ($\beta = 1.39; p = .19$).

*1-Month.* At 1-month postpartum, a significant linear relationship was found between mother’s reported level of proactive coping at 1-month postpartum and both their reported level of anxiety ($\beta = -.33; p < .001$) and depression ($\beta = -.26; p < .01$) at 1-month postpartum, with mothers engaging in more proactive coping at 1-month postpartum reporting less anxiety and depression at 1-month postpartum. However, no significant curvilinear relationships were found for mothers' reported level of proactive
coping at 1-month postpartum on their reported anxiety ($\beta = .46; p = .68$) and depression ($\beta = 1.14; p = .32$) at 1-month postpartum.

**Longitudinal Analyses**

In addition to examining potential cross-sectional effects for mothers’ proactive coping being related to their anxiety and depression, regressions analyses were also conducted to examine the relationship between proactive coping during pregnancy and mental health at 1-month postpartum. Levels of anxiety and depression during pregnancy were controlled for in the analyses. No significant results were obtained for a linear relationship ($\beta = -.13; p = .17$) or curvilinear relationship ($\beta = 1.36; p = .34$) between mothers’ reported proactive coping during pregnancy and their reported anxiety at 1-month postpartum. Additionally, no significant results were obtained for a linear relationship ($\beta = -.10; p = .27$) or curvilinear relationship ($\beta = 1.06; p = .41$) between mothers’ reported level of proactive coping during pregnancy and depression at 1-month postpartum.
CHAPTER 8

Discussion of Study 2

The literature on proactive coping is relatively new and therefore, to my knowledge, no prior studies have examined this aspect of the coping process during the transition to parenthood. The transition to parenthood is a period of disequilibrium, with first-time parents experiencing novel situations and expectations (Levy-Shiff, 1999). Many first-time expectant parents report feeling stressed and unprepared for becoming a parent and its accompanying adjustments and changes (e.g. Vanzetti & Duck, 1996). Therefore, it is anticipated that new parents begin coping before these changes occur by using proactive coping strategies. For Study 2, my primary goals were to examine potential individual difference factors that may predict engagement in proactive coping. From the prior literature, I hypothesized that a mother’s level of optimism, rumination, and locus of control would influence the degree to which she engaged in proactive coping both during pregnancy and at 1-month postpartum. Additionally, I wanted to examine the influence of proactive coping on mental health outcomes during both pregnancy and 1-month postpartum. The current study found an internal locus of control and optimism were concurrently related to more proactive coping, while rumination was not. Furthermore, proactive coping during pregnancy and at 1-month postpartum was found to
be linearly related to less anxiety and depression. The implications of Study 2 and future
directions of the study findings are discussed below.

Predictors and Correlates of Proactive Coping

In the current study, three potential individual difference variables were examined
as predictors of proactive coping during pregnancy and at 1-month postpartum: locus of
control, optimism, and rumination. Locus of control was consistently shown to be related
to proactive coping during both pregnancy and 1-month postpartum - with mothers who
reported having more internal locus of control reporting more proactive coping. These
findings support prior literature on proactive coping, which suggests that individuals who
feel they are more capable of influencing their environment should engage in more active
types of problem-solving, such as proactive coping (Greenglass & Fuskenbaum, 2009).

Individuals who have a higher internal locus of control may feel they have more control
over influencing future stressors in their environment - thus, it is understandable why
they would engage in more proactive coping to prepare for the anticipated stressors that
accompany parenthood. In addition to locus of control, marginal results were also found
for optimism with mothers who reported being more optimistic reporting marginally
more proactive coping both during pregnancy and at 1-month postpartum. Because
proactive coping could be viewed as a more positive type of future-oriented coping,
where individuals are able to do something in the present to help events in the future (e.g.
Schwarzer and Knoll, 2003), it makes sense that individuals who are more optimistic
would also engage in more of this style of coping. However, the results for optimism in
the current study were only marginal. Future studies need to replicate these findings with
a larger sample size and over a longer duration of the transition to parenthood to determine if optimism has a stronger role in later proactive coping.

One surprising finding was the lack of results for mother’s reported level of rumination and proactive coping. I expected that individuals who engaged in more rumination would be less likely to proactively cope with events because they were focused on past events rather than looking towards events in the future. However, this hypothesis was not supported with the current data. One possible explanation for the lack of results may be that the items measuring rumination tapped into the trait of how much a person ruminates in general, rather than rumination specifically related to the transition to parenthood. Future studies using a more state-based measure specific to the transition to parenthood may yield different results.

**Proactive Coping and Mental Health**

In addition to examining personal characteristics that may impact the utilization of proactive coping, the current study also sought to examine the association between proactive coping and mental health during the transition to parenthood. Prior research has provided evidence that proactive coping can have a positive impact on an individual and his/her mental health (see Greenglass, 2002, for a review). Similarly, my study found proactive coping is related to adjustment with a transitional stressor. Significant concurrent linear relationships were found between mothers’ proactive coping at 1-month postpartum and both depression and anxiety at 1-month postpartum. A marginal linear relationship was also found between mothers’ proactive coping during pregnancy and depression during pregnancy. In all cases, mothers who reported engaging in more
proactive coping strategies also reported better mental health (i.e. less reported anxiety and depression). These findings support prior literature which argues proactive coping is advantageous for individuals (e.g. Folkman & Moskowitz, 2004; Taylor, Kemeny, Reed, Bower, & Gruenewald, 2000). In addition to examining the linear relationship between proactive coping and anxiety and depression, I examined whether there was a potential curvilinear relationship between proactive coping and mental health outcomes - arguing that those who engage in too much or too little proactive coping would have worse mental health outcomes than those who engaged in a moderate amount of proactive coping. However, the current results only found support for the linear association. In other words, it does not appear that one can proactively cope too much. Still, future research is needed to expand on these findings by examining the influence of proactive coping on mental health during later stages of the transition to parenthood. Although no longitudinal associations were found for proactive coping during pregnancy and postpartum mental health, proactive coping was found to be related to mental health at the same time point. Mental health in the early postpartum period, especially for mothers, may be influenced by a multitude of factors (i.e. physical recovery from delivery, lack of sleep, adjusting to a new life role, etc.) and so the impact of proactive coping during pregnancy on mental health at 1-month postpartum may be muted.

**Limitations and Applied Implications**

There are several caveats to consider with respect to the current findings. One limitation, similar to Study 1, is the homogenous nature of the current sample. Because the sample consisted primarily of White, middle-class mothers transitioning to
parenthood, it is unclear how these results will generalize to other parents, including multiparous parents. Additionally, the current study only examined proactive coping in mothers; thus, these results cannot be generalized to fathers. As we learned from Study 1, fathers and mothers reactively cope quite differently with the transition to parenthood. Because fathers are not physically experiencing the pregnancy, they may prepare for parenthood differently than mothers. Fathers may be able to focus on coping with different potential stressors of parenthood. For example, fathers may be able to proactively cope with the added cost of having a baby by working more hours. Also, it may be that fathers are less likely to proactively cope during pregnancy than mothers – as the reality of the transition does not “hit home” until the baby is born.

Secondly, future studies may wish to examine additional potential predictors of proactive coping. One such variable could be the amount of stressors and uplifts an individual is encountering related to preparing for a stressful event. The transition to parenthood is typically filled with many new situations that can create both stressors and uplifts for parents; however, little is known about the relationship between stressors and uplifts on the proactive coping process. For example, does someone who is experiencing more stressors (or uplifts) engage in more proactive coping? Individuals who are experiencing more pregnancy uplifts may engage in more proactive coping because they are focusing on the positives of the pregnancy and may be more optimistic about the impact of their present coping to minimize future stressors. However, a mother who reports experiencing many pregnancy stressors may be taxed with coping with present stressors and may not have the resources or fortitude to worry about future situations.
Because both stressors and uplifts may play an important role in the coping process, in the current study, post hoc analyses were conducted examining the relationship between pregnancy stressors and uplifts on proactive coping. Pregnancy stressors and uplifts were assessed with 10 uplift items (i.e. “Making or thinking about nursery arrangements”) and 10 stressor items (i.e. “Thinking about your own labor and delivery”) (PES; DiPietro, Ghera, Costigan & Hawkins, 2004). Mothers indicated whether each or these items were viewed as a stressor and or an uplift on a 4-point Likert scale ranging from 0 (not at all) to 3 (a great deal). A sum score of the items was used to construct each scale (pregnancy stressors: $\alpha = .71$; pregnancy uplifts: $\alpha = .77$). A linear regression analysis, controlling for years married, was conducted for stressors/uplifts and proactive coping. Results showed that the more uplifts mothers reported during pregnancy, the more proactive coping they reported engaging in ($\beta = .34; p < .001$); however, reported stressors were not significantly related to the amount of proactive coping during pregnancy ($\beta = .08; p = .35$). These results suggest when individuals are experiencing a transitional stressor, they may engage in more proactive coping if preparing for an event that they see more positively than negatively. In other words, future research should examine whether parents who view the transition with positive anticipation engage in approach-oriented coping (such as proactive coping), whereas those who view the transition more stressfully engage in avoidance-oriented coping (e.g. abusing substances, using other activities to distraction themselves from the stressor, etc.). To conclude, while Study 2 does have some limitations, it is novel in that it examined proactive coping in first-time mothers, which has previously been neglected;
Overall Conclusions

The current dissertation examined both proactive and reactive coping during the transition to parenthood using two samples of first-time parents. While reactive coping has been examined during the context of numerous stressful events, less is known about how first-time parents (especially fathers) reactively cope with the transition to parenthood. In contrast to reactive coping, proactive coping is a newer construct which has never, to my knowledge, been used to examine the transition to parenthood. In the current dissertation, Study 1 found mothers and fathers utilized different reactive coping strategies and coping changed across the transition to parenthood. Study 2 found mothers with higher internal locus of control and more optimism reported engaging in more proactive coping. Additionally, both Studies 1 and 2 found coping techniques utilized during pregnancy and at 1-month postpartum have an immediate impact on mental health outcomes in new parents. These studies provide new insights into how first-time parents cope with the changes and stresses of the transition to parenthood.

As seen in the current studies, both proactive and reactive coping have the potential to influence the mental health of an individual encountering an anticipated stressful event such as parenthood. Overall, the findings in Study 1 examining the influence of coping strategies on mental health found certain coping strategies did have a significant influence on mental health cross-sectionally for mothers and both cross-sectionally and longitudinally for fathers. In Study 2, engaging in proactive coping was
found to be related to less reported anxiety and depression, but only concurrently. Taken together, it seems that coping both proactively and reactively seem to have the most significant influence on mental health at the same time point (rather than across time). As such, the current results suggest coping with the transition to parenthood may be more state-based rather than trait-based, and that new parents have the ability to modify which coping techniques best match the stressor at hand. As seen in Study 1, mothers and fathers utilized different coping techniques during pregnancy and at 1-month postpartum. A parent may have successfully coped with a stressor they were facing during pregnancy utilizing one method of coping; but, they may encounter additional stressors during the postpartum period which are best ameliorated with other coping techniques. This flexibility in coping can be advantageous for new parents as prior literature has suggested those who have the best match between a situation and coping strategy are typically seen as coping better with the situation (Ptacek & Gross, 1997). While proactive and reactive coping were examined in two separate studies for the current dissertation, the two strategies may work together in the coping process. It may be that if proactive coping is successful, reactive coping may be less necessary if the stressor could be reduced or even eliminated. For example, if an expectant parent proactively copes for the birth of their baby and has prepared for the baby’s arrival (e.g., taken birthing classes, parenting classes, and prepared the nursery), there may be less for them to reactively cope with in the immediate postpartum period.

While the literature on reactive coping is quite extensive, proactive coping is a newer construct that is in need of more research with different types of anticipated
stressors. Although planning has been examined as a dimension of reactive coping, little is known about how individuals cope reactively with current stressors while also proactively coping for anticipated events. Because stressors typically do not occur one at a time, it is likely that an individual who is engaged in proactive coping for an anticipated stressor is also dealing reactively with current stressors. Yet, it is unclear how individuals may balance these different strategies of coping. Therefore, future research should examine both proactive and reactive coping simultaneously. Because of the nature of coping, transitional stressors, such as the transition to parenthood, allow researchers an excellent opportunity to examine how individuals prepare for upcoming and current stresses and challenges using proactive and reactive coping strategies. The results from the two current studies provide the impetus to continue examining how first-time parents experience and cope with the transitional stressor of parenthood.
References


Heron, J., O’Connor, T. G., Evans, J., Golding, J., & Glover, V. (2004). The course of anxiety and depression through pregnancy and the postpartum in a community sample.


Table 1. Descriptive Statistics of Demographic Variables for Study 1

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### Table 2. Descriptive Statistics of Mental Health Variables for Study 1

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<td>(3.76)</td>
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<td></td>
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<td>Pregnancy</td>
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<td>---</td>
<td>---</td>
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<td>1-Month</td>
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Table 3. *Sex Differences in Coping*

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<td>1.29</td>
<td>1.97 ***</td>
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<td>1.98</td>
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<td>1.33</td>
<td>1.98 ***</td>
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<td>1.23</td>
<td>0.91</td>
<td>0.56 **</td>
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<td>2.20</td>
<td>2.57 ***</td>
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<td>1.57 ***</td>
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*p ≤ .05; **p ≤ .01; ***p ≤ .001
### Table 4. Differences in Coping Across Time

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<td>-5.81 ***</td>
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<td>2.45</td>
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† < .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
Table 5. Descriptive Statistics of Demographic Variables for Study 2

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<td>Income</td>
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<tr>
<td>$0-$19,999</td>
<td>2.5%</td>
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<tr>
<td>$20,000-$40,000</td>
<td>9.30%</td>
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<tr>
<td>$40,000-$60,000</td>
<td>13.60%</td>
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<tr>
<td>$60,000-$80,000</td>
<td>28.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100,000-$120,000</td>
<td>14.40%</td>
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<tr>
<td>$120,000 +</td>
<td>17.80%</td>
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Table 6. Descriptive Statistics of Major Study Variables for Study 2

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>(SD)</th>
<th>Range</th>
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</thead>
<tbody>
<tr>
<td><strong>Proactive Coping</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>31.50</td>
<td>(4.48)</td>
<td>18 - 39</td>
</tr>
<tr>
<td>1-Month</td>
<td>32.76</td>
<td>(4.40)</td>
<td>20 - 40</td>
</tr>
<tr>
<td><strong>Locus of Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>33.97</td>
<td>(3.10)</td>
<td>23 - 40</td>
</tr>
<tr>
<td>1-Month</td>
<td>34.79</td>
<td>(2.93)</td>
<td>25 - 40</td>
</tr>
<tr>
<td><strong>Optimism</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>16.42</td>
<td>(3.84)</td>
<td>7 - 24</td>
</tr>
<tr>
<td>1-Month</td>
<td>17.49</td>
<td>(3.99)</td>
<td>4 - 24</td>
</tr>
<tr>
<td><strong>Rumination</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>22.35</td>
<td>(5.36)</td>
<td>10 - 34</td>
</tr>
<tr>
<td>1-Month</td>
<td>22.44</td>
<td>(5.35)</td>
<td>10 - 35</td>
</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>3.45</td>
<td>(3.14)</td>
<td>0 - 20</td>
</tr>
<tr>
<td>1-Month</td>
<td>3.65</td>
<td>(4.16)</td>
<td>0 - 19</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>15.81</td>
<td>(8.19)</td>
<td>3 - 42</td>
</tr>
<tr>
<td>1-Month</td>
<td>15.77</td>
<td>(7.49)</td>
<td>4 - 39</td>
</tr>
</tbody>
</table>
Appendix

Study Variables
Age: ____

Sex:  1) female  2) male

**Current Marital Status:** 1) married  2) cohabiting

**How long have you been married/cohabiting? _____ (years)**

**Race:**  1) White (non-hispanic)  2) African American  3) Hispanic  4) Asian  5) other

*If other, please specify: _____*

**What is the highest level of education that you have completed?**

1) some high school  2) high school  3) some college  4) college  5) advanced degree

**Are you currently employed?**

1) full time  2) part time  3) self employed  4) not currently working

*If you are currently employed, how many hours per week do you work? _____*

**Your total household yearly income per year (including all sources):**

1 = less than $20,000
2 = $21,000-$40,000
3 = $41,000-$60,000
4 = $61,000-$80,000
5 = $81,000-$100,000
6 = $100,001-$120,000
7 = more than $120,000

**What is the sex of your baby?**  0) male  1) female

**Have you ever lost a pregnancy due to miscarriage?**  0) no  1) yes

**Has your baby experienced any health problems?**  1) yes  2) no

**Did you experience any of the following in the last trimester of your pregnancy?**

1) Not at all  2) A little bit  3) Sometimes  4) A lot

1. Heartburn
2. Nausea/vomiting
3. Swelling in face/hands/feet
4. New/different headaches
5. Pre-eclampsia
6. Early contractions
7. Bleeding/Spotting
8. Being put on bed rest
9. Anemia
10. Back pain
Anxiety

Below is a list of the ways that you might have felt or behaved in general during the last week. Please indicate how often you have felt each of these ways in the last 7 days.

    0 = Rarely or none of the time (less than 1 day)
    1 = Some or a little of the time (1-2 days)
    2 = Occasionally or a moderate amount of time (3-4 days)
    3 = Most or all of the time (5-7 days)

1. I felt nervous or shaky
2. I have been suddenly scared for no reason
3. I felt tense or keyed up
4. felt so restless you couldn’t sit still
5. I thought something bad was going to happen to you
6. I had spells of terror or panic
7. I had thoughts and images of a frightening nature
8. I felt yourself trembling
9. I felt your heart pounding or racing
Depression

Below are some questions related to how you’ve felt in the past week. Please indicate how often you have felt each of these ways in the PAST 7 DAYS.

1. I was bothered by things that usually don’t bother me.
2. I did not feel like eating; my appetite was poor.
3. I felt that I could not shake off the blues even with help from family or friends.
4. I felt that I was just as good as other people.
5. I had trouble keeping my mind on what I was doing.
6. I felt depressed.
7. I felt that everything I did was an effort.
8. I felt hopeful about the future.
9. I thought my life had been a failure.
10. I felt fearful.
11. My sleep was restless.
12. I was happy.
13. I talked less than usual.
15. People were unfriendly.
16. I enjoyed life.
17. I had crying spells.
18. I felt sad.
19. I felt that people disliked me.
20. I could not get “going.”
Postpartum Distress

Below is a list of statements describing how a parent may feel after the birth of their baby. Please indicate how much you agree or disagree with each statement thinking about how you have felt in the PAST 7 DAYS.

1 = strongly disagree  
2 = disagree  
3 = neither agree nor disagree  
4 = agree  
5 = strongly agree

1. I had trouble sleeping even when my baby was asleep.  
2. I got anxious over even the littlest things that concerned my baby.  
3. I felt like my emotions were on a roller coaster.  
4. I felt like I was losing my mind.  
5. I was afraid that I would never be my normal self again.  
6. I felt like I was not the parent I wanted to be.  
7. I felt like so many other parents were better than me.  
8. I felt all alone.  
9. I find myself eating even when I am not hungry.  
10. I felt full of anger and ready to explode.  
11. I did not feel real.
Reactive Coping

The following items ask you to indicate what you generally do and feel when you experience a stressful event. Obviously, different events bring out somewhat different responses, but think about what you usually do when you are under a lot of stress. There are no right or wrong answers, so choose the most accurate answer for you – not what you think “most people” would say or do.

0 = I usually don’t do this at all  
1 = I usually do this a little bit  
2 = I usually do this a medium amount  
3 = I usually do this a lot

1. I learn something from the experience.  
2. I think about how I might best handle the problem.  
3. I get upset and let my emotions out.  
4. I turn to work or other substitute activities to take my mind off things.  
5. I try hard to prevent other things from interfering with my efforts at dealing with it.  
6. I turn to God/my religion/my spirituality more than usual.  
7. I do what has to be done, one step at a time.  
8. I get used to the idea that it happened.  
9. I try to get advice from someone about what to do.  
10. I act as though it hasn't even happened.  
11. I talk to someone about how I feel.  
12. I admit to myself that I can't deal with it, and quit trying.  
13. I make light of or laugh about the situation.
Locus of Control

Please indicate how strongly you agree or disagree with each of the following statements.

Not at all = 1
A little true = 2
Somewhat true = 3
Very true = 4

1. My life is determined by my own actions
2. When I make plans, I almost always make them work.
3. When I get what I want, it is usually because I worked hard for it.
4. I am usually able to protect my own interests.
5. When I get what I want, it is usually because I am lucky. (1)
6. Often, there is no way I can protect myself from bad luck. (1)
7. It is not always wise for me to plan too far ahead because many things turn out to be a matter of good or bad fortune. (1)
8. I believe that chance or luck plays an important role in my life. (1)
9. I feel like what happens in my life is mostly determined by powerful people. (1)
10. My life is chiefly controlled by powerful others. (1)
Proactive Coping: Preventative Subscale

The following statements deal with reactions you may have to various situations. Indicate how true each of these statements is depending on how you feel about the situation. Do this by checking the most appropriate box.

1 = not at all true
2 = barely true
3 = somewhat true
4 = completely true

1. I plan for future eventualities.
2. Rather than spending every cent I make, I like to save for a rainy day.
3. I prepare for adverse events.
4. Before disaster strikes I am well-prepared for its consequences.
5. I plan my strategies to change a situation before I act.
6. I develop my job skills to protect myself against unemployment.
7. I make sure my family is well taken care of to protect them from adversity in the future.
8. I think ahead to avoid dangerous situations.
9. I plan strategies for what I hope will be the best possible outcome.
10. I try to manage my money well in order to avoid being destitute in old age.
Rumination

People think and do many different things when they feel sad, blue, or depressed. I’m going to read a list of possibilities. Turn to the next scale in your book and please tell me if you never, sometimes, often, or always think or do each one when you feel down, sad, or depressed. Please indicate what you generally do, not what you think you should do.

1 = Almost never
2 = Mostly never
3 = Mostly always
4 = Almost always

1. Think “What am I doing to deserve this?”
2. Analyze recent events to try to understand why you are depressed
3. Think “Why do I always react this way?”
4. Go away by yourself and think about why you feel this way
5. Write down what you are thinking and analyze it
6. Think about a recent situation, wishing it had gone better
7. Think “Why do I have problems other people don’t have?”
8. Think “Why can’t I handle things better?”
9. Analyze your personality to try to understand why you are depressed
10. Go someplace alone to think about your feelings
Optimism

Please answer the following questions about yourself by indicating the extent of your agreement using the following scale

0 – strongly disagree
1 – disagree
2 – neutral
3 – agree
4 – strongly disagree

1. In uncertain times I usually expect the best.
2. If something can go wrong for me, it will.
3. I’m always optimistic about my future.
4. I hardly ever expect things to go my way.
5. I rarely count on good things happening to me.
6. Overall, I expect more good things to happen to me than bad.
Pregnancy Experience Scale

How much have each of the following made you feel happy, positive or uplifted during your pregnancy?

Please choose the appropriate response for each item:

0 = not at all; 1 = a little; 2 = somewhat; 3 = a great deal

1. How much the baby is moving
2. Thinking about the baby’s appearance
3. Feelings about being pregnant at this time
4. Courtesy/assistance from others because you are pregnant
5. Comments from others about your pregnancy/appearance
6. Visits to obstetrician/midwife
7. Making or thinking about nursery arrangements
8. Discussions with spouse about pregnancy/childbirth issues
9. Spiritual feelings about being pregnant
10. Discussions with spouse about baby names

How much have each of the following made you feel unhappy, negative or upset during your pregnancy?

1. Normal discomforts of pregnancy (e.g. heartburn)
2. Getting enough sleep
3. Ability to do physical tasks/chores
4. Thinking about your labor and delivery
5. Your weight
6. Body changes due to pregnancy
7. Thoughts about whether the baby is normal
8. Clothes/shoes don’t fit
9. Physical intimacy
10. Concerns about physical symptoms (pain, spotting, etc.)