"I Think Different Now":

Adolescent Mothers' Meaning Making and Mindset

in the Transition to Parenthood

Dissertation submitted by

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Abstract

Using a meaning making lens and a qualitative methodology, this dissertation study sought to explore transformative meaning making and implicit beliefs of parenting among a sample of 40 adolescent mothers participating in a home visiting program during their transition to parenthood. Given the high attrition rate for interventions serving adolescent moms, the study also explored the alignments between meaning making and home visiting program participation. Through iterative coding and theme analysis, this investigation revealed that participants' beliefs about parenting evolve as they transition from pregnancy to parenting. They engage in meaning making throughout the process, which leads to scripts of change in three areas: improvements in relationships, changes in life outlook, and changes to self. Two groups emerged on either end of the spectrum of meaning making. High meaning-making *transformers* tended to remain actively enrolled in the intervention while the low meaning-making *remainers* all dropped out by the second year. An analysis of implicit beliefs about parenting, or meta-parenting mindset, identified three groups of participants: *fixed theorists*, *incremental theorists*, and *mixed theorists*. Fixed theorists, who believed parenting ability was natural or instinctual, had a lower retention rate in the program (14%) than the overall rate of the sample (42%) even after controlling for participants who moved away. Incremental theorists, who attributed their parenting abilities to gradual growth and learning, had a 50% retention rate and also represented just 6.6% of those receiving a low number of visits and 66.6% of those who had high rates of home visits.

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Chapter 1: Introduction

Young women who become mothers during adolescence are faced with the difficulty of navigating the tasks and challenges of their own development into young adulthood while also adjusting to motherhood. There are numerous challenges associated with adolescent parenthood (Farris et al., 2007; Leadbeater & Way, 2001) and some risk factors especially negatively influence the outcomes for young mothers and their children, including poverty, social isolation, and cognitive immaturity (for example, see Borkowski et al., 2007; Moore & Brooks-Gunn, 2002).

Despite the many difficulties they face, young mothers are "not inevitably doomed" (Breen & McLean, 2010, p. 151). Researchers have noted that there are a number of potential protective factors for adolescent mothers, including social support, cognitive maturity, educational achievement, and financial resources (Easterbrooks, Chaudhuri, & Gestdottir, 2005; Luster & Haddow, 2005). An additional contributing factor in adolescents' adjustment to young motherhood may be the meaning they ascribe to it. Some adolescent mothers seem to view their new parenthood as a precipitating event in their lives, using the new role as a turning point to adjust their life trajectories with a new sense of purpose (Breen & McLean, 2010; Smid, Bourgois, & Buerswad, 2010). This meaning making has been shown to support meaningful growth in the transition to parenthood for other mothers (Duggan, 2012; Meleis et al., 2000; Millar, 2012; Tedeschi & Calhoun, 2004).

The beliefs and meanings ascribed to parenthood may also influence their

participation and retention or attrition in an intervention. The range of challenges

and possibility of negative outcomes associated with young parenting have led to

the development of a variety of preventive interventions designed to support their

transition to parenthood. However, the high attrition rates typically associated

with serving adolescents can compromise the ability for these programs to support

their participants (Gomby, et al., 1999). Early departure from programs can be

costly for the service providers and, more importantly, can reduce and

compromise the intervention's benefits to the participants they seek to serve

(Ingoldsby, 2010). Understanding how meaning making and beliefs affect

participation in a home intervention may help providers better understand how to

prevent attrition and support young mothers in their transition to parenthood.

The Present Study

This qualitative study set out to explore young mothers' beliefs about

parenting in the transition to parenthood with the aim of informing and improving

intervention efforts. First, the study explored adolescent mothers' beliefs and

meaning making as they seek to make sense of parenting in the transition to

motherhood.

Second, the study examined a subset of those beliefs--young mothers'

mindset or implicit beliefs about parenting mastery (which the present study also

calls *meta-parenting mindset*)—and how these beliefs might align with their

retention in a home-visiting intervention. Significant research has revealed

important connections between individuals' beliefs about learning and their

subsequent goals, successes, achievements, and level of persistence (Blackwell,

Dweck, & Trzesniewski, 2007; Dweck & Elliott, 1983; Dweck & Leggett, 1998) but parents' beliefs have been virtually ignored within this literature on implicit theory and mindsets. When parents are mentioned it is only in the context of examining how their beliefs about learning affect their children's mastery, not how parents approach their own learning as parents (Mueller & Dweck, 1998; Pomerantz, Grolnick, & Price, 2005). This is a glaring oversight in the literature with important implications for understanding parents and implementing parenting interventions, especially with young, at-risk parents. With the expected arrival of their first children, young mothers encounter a novel opportunity for learning and mastery in their new role as parents. Not much is known about this learning process. Do young mothers believe parenting mastery is achieved through fixed traits or by an incremental, effort-based process?

Interventions with young mothers experience a high rate of attrition as between 20 and 68% drop out of home visiting programs designed to serve pregnant and parenting adolescents. Do the types of beliefs parents hold influence their engagement and retention in interventions? In other words, if a young mother believes parenting ability is based on fixed and unchangeable traits or instinct, how does that influence her participation in an intervention that carries the expressed goal of improving her parenting abilities? An examination of young parents' beliefs about parenting, specifically regarding the nature of parenting learning and mastery—meta-parenting mindset—is long overdue.

Using a Meaning Making Lens to Examine Adolescents' Transition to

Motherhood

At the heart of this dissertation study is the potentially transformative impact of meaning making on the overall experience and development of an adolescent mother. Meaning making can be viewed as both an *outcome*, in the form of a narrative that emerges to explain the interplay of context and environment, and a *process* that transforms the objective environmental world into an individual, lived experience (Mistry & Dutta, 2015; Overton, 2008). In other words, meaning making is a crucial element in both *what* happens in development and also *how* development happens (Raeff, 2011). As Mistry and Dutta (2015, p. 387) assert, "acting in, with, and on the environment through culturally interpreted meanings itself represents the developmental process."

The study of meaning making provides a bridge between cultural and developmental science. Dweck and London (2004) note that "the study of mental representations…could create a much-needed bridge to other areas…at the heart of cutting-edge approaches in all of these areas is the idea that people mentally represent their experiences (including their emotional experiences) and that studying these representations and their organization can illuminate the processes that we all seek to understand" (p. 430). Meaning making plays a crucial role in the understanding of both culture and development overall.

Culture itself can be viewed as an interpretive, meaning making process used by individuals as they interact with their environments (Mistry & Dutta, 2015). The way individuals interpret and give meaning to their particular context

is revealed in the interplay between objective and subjective culture. Overton

names this process *embodied action*, where action is "the projection of person-

centered meanings, transforming the environmental world into an actual or lived

experience (that is, one that is known, felt, desired)" (Overton, 2008, p. 9). This

differentiation of the objective and subjective contexts is highlighted in Nicotera's

(2007) distinction between *environment* and *place*, where *environment* is the

objective, static, collectively experienced context and *place* is the individually

constructed meaning, or lived experience, of the environment over a period of

time (see also Mistry & Dutta, 2015).

This approach to studying meaning making in development puts

individuals at the center of the process, shaping their own development through

their beliefs and action in several ways, with meaning making contributing to the

structure, motivation, and goals of development. Meaning making provides

structure for both making sense of and constructing the world as it is individually

experienced. Mascolo (2005) calls this phenomenon *self-scaffolding*, describing it

as "the ways in which products of the individual's own actions create conditions

that direct and support the production of novel forms of action and meaning" (p.

193). Through self-scaffolding, individuals change their environments or their

representations of their environments in order to incorporate new challenges or

make sense of the world, constructing new meanings and beliefs in the process.

Nelson (2007) notes that the developing child "seeks meaningful experiences

relevant to her current needs and interests and makes pragmatic sense of her

encounters with the world" (p. 1). In this way, the seeking of meaningful

experiences and the attendant pull to make meaning from experiences can motivate both interactions with the environment and subsequent development. Meaning making further influences development as people construct their own developmental goals and actively make judgments and decisions about varied social situations, including whether to embrace or resist environmental influences, cultural norms, or attempts at guidance and assistance (Raeff, 2011; Mascolo, 2005).

In the present study, participants shared the context of adolescent parenthood but approached it through individual pathways of meaning making and beliefs that each mother constructed through her lived experience. This research was oriented around understanding the intra-personal developmental process of the transition to parenthood through meaning making and particular beliefs that influenced how participants approached parenthood, learned how to parent, and participated in a home visiting intervention. Given the highly individual nature of meaning making, a qualitative, iterative approach to research design best suited this study. Such an approach brought the individual beliefs, experiences, and lived realities of the participants to the foreground. Such an approach assumed that beliefs, values and behaviors were situated in, and reflective of, the realities of individuals and asserted that "their voices and experiences must be given a preeminent place in social scientific investigations about their lives" (McWayne, et al., 2013, p. 594).

Definitions

The present study proposes the following definitions of core constructs:

- *Meaning making* is defined as both an outcome, in the form of narratives that emerge to explain the interplay of context and environment, and an ongoing process that transforms the objective context into an individual, lived experience. Beliefs can be considered a product or subset meaning making; making meaning involves constructing and adapting sets of beliefs

- *Implicit theories* or beliefs are called "implicit" in that they are often imbedded in a person's way of seeing the world and are rarely made explicit. They are called "theories" because, much like a scientific theory, they form a structure or framework for making core assumptions about the world, particularly the malleability of personal abilities or attributes.

- *Meta-parenting mindset* is a new term proposed in this study to capture parents' implicit beliefs about parenting as a domain of learning.

- *Participation* in this study is defined by two variables: retention in the home visiting program and the number of home visits a participant received over an approximately two year period, from Time 1 to Time 3.

Research Questions

The present study explored the following research questions:

1. What parenting beliefs do adolescent mothers express in the transition to parenthood?

2. What meaning do they construct as they transition to parenthood?

3. What do they believe about learning to become a parent?

4. How do adolescent mothers' parenting beliefs and other meaning making

align with their participation in a home visiting intervention?

Chapter 2: Literature Review

The focus of this study was the meaning making and beliefs of adolescent mothers that influence the experience of becoming a young mother. The body of research literature involved in exploring this topic spans several main topics, including the transition to parenthood, adolescent mothers, parenting beliefs, implicit beliefs, home visiting, and program participation. A review of these bodies of literature in this chapter provided a grounding in existing research on these concepts. I began with a review of the literature on the transition to parenthood in general followed by research on the transition for adolescent parents in particular, a liminal period that presents both challenges and opportunities for young parents.

I then reviewed parent beliefs research and then considered implicit theory mindset research and parent attributions. Next, I discussed the existing gaps in these fields and explore the possibility for applying implicit theory to better understand parents' beliefs about parenting. I then reviewed literature researching the intersection of beliefs and interventions. Finally, I outlined research on home visiting interventions designed to assist adolescent parents in the transition to parenthood, including the Healthy Families intervention that served the participants in this study. Together this literature review laid the foundation for understanding parenting beliefs and meaning making in the transition to parenthood and the role that some beliefs may play in influencing young mothers' participation in interventions.

Transition to Parenthood

Becoming a mother represents a substantial life event for a woman as she experiences a range of personal, social, and biological changes in a matter of months. This transition process may include several phases of adjusting to a new reality, including initiating self reflection and turning inward in early pregnancy, acknowledging concerns and commencing preparation in later pregnancy, and developing a new notion of self as integrally related to others (or a new "relational self") in the months postpartum (Smith, 1999, p. 295).

The transition to parenthood can be challenging under the best of circumstances. New routines, responsibilities, challenges, reorganization of life, and a shuffling of priorities all contribute to increased stress and pressure as well as a sensitivity and vulnerability to depression and anxiety (Bost et al., 2002; Millward, 2006; Nelson, 2003). The transition to parenthood has been found to impact individuals' mental health, relationship satisfaction, and health (Bost et al., 2002; Perelli-Harris et al., 2012). In addition, the transition to motherhood often triggers and/or coincides with several other life transitions in the areas of work, relationships with family and others, and housing arrangements (Duggan, 2012). As Osofsky and Osofsky (1984) suggest, pregnancy can be either a disorganizing event or a developmental opportunity (as cited in Smith, 1999, p. 294). For many mothers, the vulnerability and change associated with this transitional time may represent both a challenge *and* an opportunity.

Adolescent Mothers in the Transition to Parenthood

On top of the typical tasks encountered in the transition to parenthood,

adolescent parents are still in the middle of their own developmental trajectories. Adolescents have not yet resolved their own stages of role identity and intimacy and have yet to complete many of the developmental and emotional tasks of adolescence (Erikson, 1980). Research on adolescent mothers highlights the risks: increased likelihood of poverty, limited educational and economic attainment, elevated risk of depression, unstable romantic relationships. For the children of adolescent mothers, the risks include language delays, poor attachment relationships, school and behavioral problems, and increased instances of abuse and neglect (Breen & McLean, 2010; Easterbrooks et al., 2011; Hanna, 2001).

Yet despite the risks, adolescent mothers are "not inevitably doomed" (Breen & McLean, 2010, p. 151). Their own beliefs and scripts about the transition to motherhood may differ from the external perceptions and discourse. For instance, one study (Rolfe, 2008) found adolescent English mothers' scripts about parenthood fell into one of three themes of growth: hardship and reward, growing up and responsibility, and doing things differently.

Many young mothers thrive and, in fact, may use the new role to build a new sense of meaning, not just adapting to the new role but also using it as a turning point to adjust their life trajectories (Breen & McLean, 2010). For some adolescent mothers, motherhood becomes a precipitating event, an invitation to change in positive ways or harness new purpose and invest hope for the future (Breen & McLean, 2010; Salusky, 2013; Smid, Bourgois & Buerswald, 2010). In this respect, new parenthood for these adolescents serves as both a challenging event and an invitation to growth.

For instance, researchers in a study of young homeless mothers (Smid, Bourgois, & Buerswald, 2010) noted that the young mothers they interviewed viewed their pregnancies as presenting both unique challenges and potential opportunities. Some young mothers in this state of disequilibrium increased risky behaviors, but others used it as an impetus to change, find hope, access services, and provide a better life for themselves and their children. Mothers in the study who chose to keep their babies saw pregnancy as a catalyst for personal transformation and a way to redeem their own troubled past (Smid, et al., 2010). The researchers concluded that this liminal life crisis presents a window of opportunity for programs serving young, at-risk mothers: pregnancy may present "a rare strategic opportunity for services to connect with especially vulnerable individuals at a moment when they yearn to change their lives" (Smid, Bourgois & Buerswald, 2010, p. 10).

While it is evident that some young mothers manage to make meaning from their new motherhood to positively impact their developmental trajectories, not much is known about the process by which this happens. Two theoretical models may provide insights and illuminate this phenomenon. Processes outlined in the Transitions Theory of Nursing and in the recent work studying post-traumatic growth may each provide some clues to understanding how meaning making may help some young mothers turn the significant life event of adolescent pregnancy into a transformative experience (Millar, 2012).

Transitions Theory

As Duggan (2012) notes, "During pregnancy, women do not merely 'step

into' motherhood, but become engaged in a complex individual and social process

of identity acceptance and change over time" (p. 9). Transitions Theory (Meleis,

2010; Meleis et al., 2000) proposes a framework to account for the internal and

external factors that can affect how one moves through a life transition. Originally

developed as a nursing theory to address the vulnerability of health and well being

in the face of transitions, the framework emphasizes the bi-directional

relationships between the components of the process, which, as outlined in Figure

1 below, include the *nature of transitions*, the *transition conditions* that may

facilitate or inhibit transitioning, the *patterns of response* throughout the process

as well as the *therapeutics* or interventions delivered to aid the transition process.

Nature of Transitions	Transition Conditions: Facilitators & Inhibitors	Patterns of Response
Types Developmental Situational Health/Illness Organizational	**Personal** Meanings Cultural beliefs & attitudes Socioeconomic status Preparation & knowledge	**Process Indicators** Feeling connected Interacting Location/situated Developing confidence & coping
Patterns Single Multiple Sequential Simultaneous Related Unrelated	Community Society	**Outcome indicators** Mastery Fluid integrative identities
Properties Awareness Engagement Change & difference Transition time span	Nursing Therapeutics	

Figure 1. *Transitions Theory (Meleis et al., 2000)*

        The present study focused on the meanings and beliefs young mothers

hold in the transition to parenthood, which in this theory would be located under

the *transition conditions* component of this theory. Although this represents just a slice of the overall framework, a brief overview of the rest of the theory was in order since it illuminated transitions in general as well as provided insights helpful to understanding the process of young mothers transitioning to parenthood.

The *nature of transitions* component includes types, patterns, and properties. For adolescent mothers, the *transition type* is a developmental one that involves growth and change into new roles and forming new relationships. *Patterns of transitions* refer to the number and sequence of other transitions—related or unrelated—that occur concurrently or sequentially. Adolescent mothers may experience numerous related and unrelated transitions both concurrently and sequentially while they transition to parenthood. These vary individually and may include changes to schooling and work, physiological transitions, transitions to living arrangements, to relationships and dynamics within families, and related health or mental health transitions.

Properties of transitions include awareness, engagement, level of change, time span, and critical points and events of the transition (Meleis et al., 2010, Meleis et al., 2000). These elements are highly individual to each young woman transitioning to parenthood. Awareness of the impending changes, level of active engagement in preparing for motherhood, and how much difference in their lives the change will bring all may vary in each situation. Although pregnancy tends to be approximately the same length of time for each mother, even time span of the transition to parenthood may vary depending on how early the mother knows she

is pregnant and how long the transition time takes past childbirth (Duggan, 2012). Two critical points quite common in pregnancy are the realization/confirmation of the pregnancy and the delivery but each woman may experience other events or critical points unique to her situation (Duggan, 2012).

The second component of Transitions Theory is the *transition conditions*, which include personal, community, and society influences that may act as either facilitators or inhibitors to the process. According to this theory, these may include meaning making, beliefs and attitudes, socioeconomic status, and preparation and knowledge about the transition. This study will further analyze and discuss the meaning making and beliefs in the transition to adolescent parenthood later.

The third component of Transitions Theory includes two kinds of patterns of response: *process indicators* and *outcome indicators*. Under this framework, process indicators of progress through the transition include feeling connected, interacting, location and being situated in the process, and developing confidence and coping. Outcome indicators signal completion of the transition process. Indications of a successful transition include mastery and the development of fluid integrative identities that, in this case, includes being a mother.

Finally, therapeutics (or interventions) fit into the Transitions Theory at every stage of the transition. Through education, assessment, and support throughout the process, interventions can address individual needs and challenges for the young woman transitioning to motherhood. Again, though this model was originally created to include nursing therapeutics, the same interface occurs

within the home visiting intervention that is a part of this study. Support and

interaction occur throughout the process—from as early as the confirmation of

pregnancy through the early years of adjusting to parenthood. The theory and

research on home visiting intervention will be discussed in more detail later in

this paper.

Applying the general Transitions Theory to adolescent mothers' transition

to parenthood gives a sense of the contributing factors and complexity of the

process as well as the individual nature of each transition for each woman. (This

subjective individuality of the process also informs the selected qualitative

method for this study which will be discussed further in the methods section.)

Another framework with which to understand the positive transition to parenthood

is in the clinical research on post-traumatic growth, or PTG, which examines the

growth that can occur after a major life change or crisis.

Posttraumatic Growth and Meaning Making

Posttraumatic growth (PTG) has emerged as a promising area of study and

interest for understanding those who have experienced trauma and for assisting

those who work clinically with traumatized populations; salient to the present

study, PTG has also recently been applied to postpartum growth. PTG refers to

the phenomena of an "individual's significant positive change that occurs as a

result of their struggles with highly challenging life crises or traumatic events"

(Millar, 2012, p. 104) by utilizing one's beliefs, interpersonal relationships, and

self.

While the phenomenon of posttraumatic growth has also been referred to

by many other terms, including *positive aspects*, *stress-related growth*, *flourishing*, *discovery of meaning*, and *thriving*, Tedeschi and Calhoun (2004) argue that the term *posttraumatic growth* fits best in capturing the essence of the phenomenon in that it seems to occur more distinctly under the conditions of major life crises and not low-level stress, for example, and involves a significant life disruption. In addition, PTG is experienced not as one of many ways to cope with trauma but rather as both an outcome and an ongoing process. Finally, PTG often requires the breaking down of existing schemas. As Tedeschi and Calhoun (2004) posit,

> posttraumatic growth best describes the experience of individuals whose development, at least in some areas, has surpassed what was present before the struggle with crises occurred. The individual has not only survived, but has experienced changes that are viewed as important and that go beyond what was the previous status quo. Posttraumatic growth is not simply a return to baseline—it is an experience of improvement that for some persons is deeply profound. (p. 4)

Tedeschi and Calhoun (2004) further note:

> Individuals develop and rely on a general set of beliefs and assumptions about the world, that guide their actions, that help them to understand the causes and reasons for what happens, and that can provide them with a general sense of meaning and purpose. Parks (1971) called this general constellation the 'assumptive world' and indicated that it 'includes everything we know or think we know' (p. 103). The assumptive world

provides individuals with the general perspectives, or paradigms (Kuhn,

1970) within which they operate. Major life crises can present major

challenges to the person's understanding of the world…it is the

individuals' struggle with the new reality…that is crucial in determining

the extent to which posttraumatic growth occurs. (p. 4-5)

The process of posttraumatic growth can be compared to an earthquake, where a

traumatic or life-changing event shakes, weakens, and collapses existing belief

structures. In this metaphor, meaning making can be similar to the rebuilding after

the earthquake in that the new beliefs and meanings constitute a changed reality,

more resistant to future instability and inclusive of the central event, which is

experienced as growth (Tedeschi and Calhoun, 2004). Unlike the earthquake

rebuilding analogy, however, this is an ongoing process not a static one. As

posttraumatic growth occurs, it mutually interacts with life wisdom and the

development of the life narrative (Tedeschi and Calhoun, 2004).

　　　PTG research has articulated five areas in which posttraumatic growth is

manifest:

　　　(1) increased appreciation for life;

　　　(2) more meaningful interpersonal relationships;

　　　(3) an increased sense of personal strength;

　　　(4) changed priorities; and

　　　(5) richer existential and spiritual life (Tedeschi & Calhoun, 1996, 2004)

　　　While originally limited to populations who have experienced trauma,

there is increasing interest in the concept of PTG being applied to events other

than those defined as clinically traumatic, including the transition to parenthood.

For example, Sawyer and Ayers (2009) studied PTG and new parenthood and

found the average level of PTG in their sample was equivalent to those in people

who have experienced traumatic accidents and assaults. Significantly for the

present study's sample, Sawyer and Ayers found in two studies (2009, 2012) that

the main predictor of posttraumatic growth after birth was age: younger mothers

reported more growth within the first three years after giving birth.

Another factor, the centrality of an event, also plays a role in the impact of

posttraumatic growth. Central events are defined as those that serve as reference

points for everyday inferences, as turning points in life stories, and as components

of personal identity (Berntsen & Rubin, 2006). Boals, Steward, and Schuettler's

(2010) research on event centrality and posttraumatic growth found that the

effects of PTG were stronger when solely examining events that were construed

as central to one's identity; this research addressed some previously weaker

correlations in PTG research (Boals et al., 2010). The centrality of the event of

adolescent parenthood—both a turning point in life stories and a component of

personal identity—makes a case for its consideration in the PTG paradigm.

Millar (2012) explored PTG and parenthood, in particular qualitatively

assessing the process of transformative growth that evolved in the transition to

parenthood. Several themes emerged from this study, including reassurance, help

seeking, self-efficacy and beliefs, and changes in the self. In particular, beliefs

and identity seemed to be especially salient to the women in their discussions of

positive growth and transitioning to parenthood and creating a narrative that

integrated their new roles with their sense of self. The ability to make meaning of

those changes into "an identity defining life story" (Millar, 2012, p. 114) seemed

to be crucial to the mothers' abilities to achieve PTG, aligning with the five areas

of PTG as outlined by Tedeschi and Calhoun (1996). In their study of postpartum

posttraumatic growth, Ford, Ayers, and Bradley (2010) found that some mothers

display posttraumatic cognitions as early as three weeks after childbirth. Millar

notes that "the transition to motherhood appeared to present an opportunity for the

women to test and assess their capacities for resilience" (p. 111). Tedeschi and

Calhoun (2004) posit that posttraumatic growth is notably different from

resilience, however. PTG "involves a movement beyond pre-trauma levels of

adaptations…has a quality of transformation, or a qualitative change in

functioning, unlike the apparently similar concepts of resilience, optimism, and

hardiness" (p. 4).

　　　While posttraumatic growth appears closely aligned with the development

and adjustment of an individual life narrative (Tedeschi & Calhoun, 2004), it does

not occur independent of context or external support. The individual's social

system has been found to influence the process of posttraumatic growth,

especially in the supplying of new growth-related narratives in addition to

sympathetic listening to descriptions and disclosures related to the traumatic event

and subsequent growth (Tedeschi & Calhoun, 2004). Many interventions aim to

help adolescent mothers in their transition to parenthood and to support the

mothers in their development personally and as parents. Participants in the present

study were enrolled in Healthy Families home visiting programs; a review of the

literature on home visiting in general and Healthy Families in particular, included later in this paper, will give a better idea of the intervention approach and further the understanding of the participants' challenges and goals.

With the added stress that early parenthood brings to adolescent mothers and the demonstrated association of greater PTG with younger mothers, exploring narratives of personal growth and meaning making with this population will be an important potential contribution of the current study. As Breen and McLean (2010) noted about research on adolescent mothers and their personal transformations, "the individual's developing capacity …for meaning making in the service of developing the self…has not been adequately considered" (p. 155). In particular, the emphasis on meaning making in the PTG research literature as well as the five areas of posttraumatic growth both provided background for considering and understanding young mothers' reflections about the transition to parenthood and beliefs about parenting in this study. Notably, those five areas of posttraumatic growth dovetail nicely with the patterns of response in the Transitions Theory framework previously discussed.

While research indicates that meaning making and beliefs in the transition to parenthood may assist in facilitating a healthy transition and positive growth, it was important to consider what kinds of beliefs adolescent expectant mothers and new mothers may address in their meaning making. The following section outlined research on parent beliefs and cognitions in general and proceeded to address the particular kinds of beliefs and meaning making this study addressed.

Parent Beliefs Research

Researchers have examined parental beliefs on a wide range of topics, from beliefs about children and child development to beliefs about aspects of parenting behaviors and about their own efficacy as parents. Some studies scrutinize maternal beliefs about children and child development (Benasich & Brooks-Gunn, 1996; Daggett, 2000; Cheah & Chirkov, 2008). Other strands of research look at parental beliefs about parenting (Luster, Rhoades, & Haas, 1989; Teti & Gelfand, 1991; Rosenblum, Dayton, & McDonough, 2002; Damast, 1996; and Kiang, Moreno & Robinson, 2004), parental beliefs about the self as parent (Ilicali, 2004; Mayseless, 2006) or about beliefs of self-efficacy as a parent (Bandura, 1989; Teti & Gelfand, 1991; Machida, 2002; Brody, 1999).   Finally, some research examines parent beliefs about learning and intelligence and the effects those beliefs have on their children's motivation and achievement (Hong & Dweck, 1999; Levy, 2001; Dweck and London, 2004; Nussbaum & Dweck, 2008). This discussion of parental belief research will provide some context about the types of beliefs that historically have been examined and orient this proposed research on the map of parental belief research.

Two perspectives in particular—attachment and cognitive science—have oriented theory around the idea that what parents believe about the child and/or their caregiving relationship matters. Whether these beliefs are labeled "internal working models" (Bowlby, 1969/1982), "maternal representations" (Stern, 1991), or "parent cognitions" (Sigel & McGillicuddy-DeLisi, 2002), these theoretical approaches posit that parental beliefs influence parents' own approaches to

parenting, their behavior, and even their children's own functioning.

Attachment and Parent Beliefs

In the attachment theoretical perspective, internal working models are the mental representations of relationships that form over time. They: 1) are built on actual experience; 2) regulate, interpret, and predict the child's as well as the caregiver's attachment-related behaviors, thoughts, and feelings; 3) are somewhat flexible and can be updated; and 4) reflect the operation of diverse defensive processes to protect a person (Mayseless, 2006). This last element is especially characteristic of attachment's internal working model: the connection to safety and survival that reflects Bowlby's ethologically based perspective.

Internal working models, for both the child and the parent, are a part of the goal-corrected behavior system that operates through sequences of behavior, the goals governing them, and the feedback and adjustment that result. This feedback and adaptive scaffolding is especially important for children as they develop. Marvin and Britner (1999) assert that the development of an internal working model requires scaffolding, "that in order for these internal events to operate in a goal-corrected manner, they need the input…of another person who already has this ability" (p. 59). This aspect of attachment provides a pattern or map of previous close relationships and experiences so that, going forward, an individual can be prepared to react in new but related circumstances and relationships (Steinberg & Pianta, 2006). While traditionally the study of internal working models examined the *child's* attachment system, research attention has also been paid to the parent's caregiving system as well (Mayseless, 2006), which is distinct

from but complementary to the child's working model.

While they are separate constructs, a mother's internal working model of attachment, acquired from her own childhood, still influences her internal working model of caregiving, even prenatally. Ilicali and Fisek (2004) have studied maternal representations during pregnancy when, lacking much concrete information about her child the pregnant mother fills in the blanks with dreams, representations, and memories from her own upbringing. The researchers found that after the baby's birth the representations became increasingly closer to their own perceived characteristics and experiences. The mother's internal working model starts to inform her caregiving.

In time, mothers develop representations of themselves as mothers, as measured by the Parent Attachment Interview (PAI). Noting a glaring oversight in research on the parent side of the attachment relationship, Bretherton and her colleagues (1989) developed an open-ended, semi-structured and in-depth interview (the PAI) using questions about the mother's reflections and emotions around the baby's birth, separations, emotions about the mother's own parents' caregiving, and thinking about the future (Mayseless, 2006). Subsequent research revealed associations between maternal representations and attachment security, positively associated with the child's attention span, sociability, mother's extroversion, and adaptability in family relations (Bretherton et al, 1989/2006), experience and management of aggressive impulses, capacity for emotional involvement, and maternal self-esteem (Biringen, Matheny, Bretherton, Renouf, & Sherman, 2000).

Parents also develop representations regarding the relationship with a specific child, distinct from the more general internal working models of attachment and caregiving. Zeanah and colleagues developed the Working Model of the Child Interview (WMCI) to assess parents' representations of their specific, subjective experience and relationships with their individual infants (Zeanah & Anders, 1987; Benoit, Parker, & Zeanah, 1997a). The interview includes questions intended to assess organizational, content, and affective aspects of the representation of the child and relationship and, as a result, the measure classifies parents into one of three groups: balanced, disengaged, or distorted. Of particular note, one of the qualitative scales examines *openness to change,* an aspect of specific focus in the implicit theory mindset research that will be addressed later in the literature review. Indeed, parents whose representations are classified as "balanced" hold beliefs that are open to change to integrate new information about parenting, whereas parents in the disengaged group demonstrate a resistance to incorporate new information and are not open to change (Benoit et al., 1997a).

Parent Cognitions

While attachment theory focuses on the social origin of mental representations, it does not address the how and where of representations. Cognitive science picks up this thread of representation research, noting that belief- and representation-making takes place in the physical structure of the brain. Structurally speaking, a mental representation includes neurons and synapses. The spectrum and strength of the synapse network demonstrates past

experience. Cognitive science clarifies that what is preserved over time is not just an abstract "internal representation" but rather a "neural network" (Crittenden, 2006, p. 392-93.)

Nevertheless, cognitive developmental science still examines the concept of parent beliefs, termed *parent cognitions* in its literature. Piaget's (1983) cognitive theoretical work and research in the 20th century outlined a process by which learning takes place. He coined the term "schema" for the mental representations that learners hold in their minds and the terms "assimilation and accommodation" for the feedback loop as beliefs are adapted to fit experience. However, these processes were not specifically applied to the parenting experience until much later. The cognitive revolution in psychology in the 1970s made its mark on many areas of clinical work but had only limited impact on the study of parenting until researchers like Irving Sigel applied a cognitive perspective to parent training, contributing an understanding of the parents' cognitive landscape (Azar, Reitz and Goslin, 2008; Sigel, 1992).

The cognitive model of parent beliefs emphasizes the ability of parents to develop parenting capacities and makes the point that parenting involves learning (Azar et al., 2008). Specifically, the parent cognition or Social Information Processing (SIP) approach to parenting beliefs consists of three factors: schema, executive functioning, and the product of the two, attributions.

Schemas consist of "knowledge structures in memory that help people organize past experiences and respond to stimulus events" (Azar, Reitz, & Goslin, 2008, p. 297). They include content and structure. Content is classified as either

child relevant—beliefs about children, goals and expectancies—or *self-relevant*—beliefs about parental self-efficacy and perceptions of control. Structure is characterized by rigidity/flexibility, complexity, and differentiation. Schemas encompass "content and structure of parental narratives about children, their role as a parent, and their views of themselves" (Azar et al, 2008, p. 298) and, as such, are quite similar to internal working models in the attachment paradigm.

Executive functioning, the second element of SIP, reflects the cognitive processing and brain functioning required at moments of "on the job trial and error learning" (Azar et al, 2008, p. 299). These elements lead to problem solving abilities, maternal responsiveness to child cues, and perspective taking.

Finally, the third element of SIP involves the interaction of the schema and executive functioning—that is, appraisals providing general explanations about events and attributions explaining specific reasons for causes of events. Theorizing that cognition can be a means of change, the SIP approach has informed many cognitive-based clinical interventions at all levels of the model, including attachment's Circle of Security project (Marvin, 2002), reattribution training, problem-solving training, and cognitive restructuring (Azar et al., 2008).

Parental schemas may predict parent behavior as well as child social, cognitive, and behavioral outcomes (Azar et al, 2008; Sigel & McGillicuddy-DeLisi, 2002). The optimal schema is flexible, complex, and differentiated, with high levels of problem solving, responsiveness, and perspective taking. While cognitive science does not occupy itself as much with the question of why beliefs emerge (as does attachment research), its contributions to the literature and

emphasis on parent learning add to the general understanding of parent beliefs.

Parent Beliefs and Parenting Behavior

Regardless of the theoretical approach, many researchers propose

connections between parent beliefs and outcomes. This body of research proposes

that parent beliefs matter because beliefs are linked to goals, which are linked to

behavior and parenting practices, which in turn influence the child's daily world

and outcomes. (See, among others, Daggett, 2000; Damast, 1996; and Brody,

1999; Luster, 1989.) For example, Bandura (1989/1997) suggested that

examining beliefs about self-efficacy, or the belief that one has the required skills

to meet particular domain-based challenges, is crucial to understanding behavior.

Studying parenting beliefs can illuminate understanding about individual

differences in parenting practices (Machida, 2002).

Parents' beliefs and cognitions motivate and organize parenting behavior

while moderating the effectiveness of parenting practice (Bornstein, 2004; see

also Bornstein, Cote & Venuti, 2001; Goodnow & Collins, 1990; Harkness &

Super, 1996; Sigel & McGillicuddy-de Lisi, 2002; Super & Harkness, 1986). A

NICHD collaborative study of 600 families in the Early Child Care Research

Network (2004) found that parents who held more child-centered beliefs (valuing

self-directed behavior in the child rather than compliance to parents' directives)

were more likely to be sensitive and to be supportive of autonomous activity

when they interacted with their children.

Parents' beliefs influence decisions about physical surroundings and

caregiving practices (Harkness et al., 2007). In fact, beliefs about childrearing not

only influence childrearing behavior but mothers' self-perceptions of parenting

ability relate to actual caregiving competence and satisfaction (Bornstein & Cote,

2004). Daggett, O'Brien, Zanolli and Peyton (2000) found a relation between

maternal beliefs, the interpretation of situations (including their own life

histories), and parenting behavior in that mothers who reported harsh parenting as

children had negative attitudes about life, unrealistic developmental expectations,

and negative attitudes about their own child. Similarly, Kochanska (1990) found

the maternal beliefs of parenting philosophy and affective attitude toward their

children to be long-term predictors of mother-child interaction.

Parent Beliefs and Child Behavior

The potential connection between parent beliefs and children's

development has been studied for many years and in many domains of a child's

development. Shaefer and Bell (1958) examined the relation between maternal

beliefs and child outcomes six decades ago, finding a correlation between

maternal attitudes and beliefs about child raising and the personality development

of the child. This link between parent beliefs about what constitutes effective

childrearing (e.g., induction, warmth, power, assertion, etc.) and child outcomes

continues to intrigue researchers.

Even earliest parent beliefs—before the parent has even begun active

parenting—can affect the children they raise. In a study of the maternal

preconceptions and beliefs about parenting during pregnancy, Kiang (2004) found

that those beliefs predicted child differential temperament and child empathy. In

fact, Pajulo (2006) noted that those earliest beliefs and representations are

particularly compelling:

> The importance of mental representations during this phase has become of
> growing interest…The relationship between representations of the
> experiences of being parented and current maternal behavior has special
> significance for high risk populations such as substance addicted mothers,
> since they so often have negative, fragile, or idealized representations of
> their own childhood and own parenting—and hence, of their own
> parenting capacities. (p. 454)

While it is essential to start with a general discussion about parent belief research in order to understand the role of that body of research in informing this proposed study, it is only one piece of the discussion. Next, we will turn to a specific area of belief research, attribution and implicit theories, which addresses attributions about learning and mastery.

Attribution Theory Research

In the area of social cognition and attribution theory, another strand of research concentrates on a different variety of beliefs. In the 1970s and 1980s, Alfred Bandura (1989) articulated a certain class of beliefs called self-efficacy beliefs, or attributions, that he posited are key to understanding humans' interactions and abilities. Seen as a bridge between knowledge and behavior, perceived attributions can regulate motivation, thinking processes, action, and emotion arousal (Bandura, 1986) and can either improve or impair performance at a given task.

Jean Piaget (Piaget & Garcia, 1983), who previously had insisted on the

primacy of logical thought, came to see that it did not adequately explain

individual variations in cognition and started exploring whether belief and

representations of the world frame the assimilation process by providing different

interpretive structures for experiences. As described by Dweck, Chiu and Hong

(1995a), "[Piaget] came to believe that equally important in shaping cognition

were the conceptions of the world to which the individual subscribed. Of these, he

saw two primary ones: the Aristotelian view of the world as essentially static

versus the conception of the world as being in a constant state of 'becoming'" (p.

327).

Implicit Mindset Theory

Among many other social scientists, Carol Dweck and her colleagues

(Dweck & Elliott, 1983; Dweck and Leggett, 1988) built on these theoretical

approaches and formulated research based on implicit theories of success or

mastery. Implicit theories are defined as core assumptions about the malleability

of personal abilities or attributes (Dweck et al., 1995b; Dweck & Leggett, 1988;

Molden & Dweck, 2006). They are "implicit" in that they are often imbedded in a

person's way of seeing the world and are rarely made explicit. They are called

"theories" because, much like a scientific theory, they form a structure or

framework for making assumptions and predictions about the world (Yeager &

Dweck, 2012).

Individuals hold implicit theories, also sometimes called mindsets or self-

theories, that can range from a more fixed or entity theory to a more malleable or

incremental theory; the type of implicit theory held can affect a person's

approaches to learning, improvement, and attributions of success or failure. On one end of the spectrum, entity thinkers attribute their successes or failures to more stable trait-based causes (intelligence and talent, for instance) and tend to persist less in the face of obstacles. They attribute achievement—including their own or another's—to inborn characteristics that tend to be beyond their control. On the other end of the spectrum, incremental theorists attribute their successes or achievements more to effort. They seem to believe in the potential for change and display less defensiveness and more efforts at remediation. In this way, Dweck says, learners map their beliefs about success and failure to attributions about the nature of their own abilities. These mindsets lead to attributions about effort, which lead to an openness or closedness to learning and changing.

Dweck and other implicit theory researchers have mainly focused their inquiry on children and their beliefs as learners. They found that a child's belief that intelligence is a fixed trait rather than a dynamic, malleable quality can affect a child in negative ways. In school transition studies, having an entity-based approach predicted declining grades (Blackwell, Dweck & Trzesniewski, 2007) as well as decreasing self-esteem (Robins and Pals, 2002); on the other hand, incremental beliefs of learning predicted increasing grades and rising self-esteem. Students with entity beliefs are more likely to blame their fixed traits (e.g., "I guess I'm not smart enough") when they experience obstacles or failure (Blackwell et al., 2007; Henderson & Dweck, 1990) rather than focusing on effort, learning, and growth as students with incremental beliefs are more likely to do (Dweck & London, 2004).

Interestingly, these mindsets are malleable and appear to be sensitive to intervention. In a set of three studies examining the effect of attributional mindsets of intelligence on learning behavior among college students (Nussbaum & Dweck, 2008), participants were induced to hold certain beliefs about an experimental task through either a set of guided questions or through reading a passage of an article. Before the task began, participants were asked to read an article about the nature of intelligence. Half of the participants read an entity-based article ("current research shows that almost all of a person's intelligence is either inherited or determined at a very young age") and the other half read a passage based on an incremental view of intelligence ("current research shows that intelligence can be increased substantially") (Nussbaum & Dweck, 2008).

After students received negative feedback about a task, they were given the opportunity to either choose defensive, self-esteem repair strategies or to remediate and improve. Students who were primed with an incremental view were more likely to choose strategies to learn from the setback. Yet students who were given a bias toward entity beliefs were more likely to engage in self-esteem repair and rationalizations rather than taking advantage of the opportunity to improve. "[These studies] revealed that following negative feedback, entity participants tended to respond defensively while incremental participants preferred to directly address the cause of their poor performance" (Nussbaum & Dweck, 2008, p. 609).

Not only that, but students demonstrated different strategies of assessing and comparing *other* students' abilities according to the view they were induced

to hold. Entity participants tended to focus on downward comparison, examining those who performed less well than they did. Since they believed intelligence was fixed and not changeable, this pattern of appraisal helped them maintain their feelings of adequacy. On the other hand, incremental participants chose instead to focus on high performers. Since they believed in the ability to improve, they preferred to engage in upward comparisons in order to figure out how to learn and grow.

Therefore, not only do implicit mindsets affect attributions about a person's own achievement, they also color the interpretation of others' intelligence and achievement. Levy, Plaks, Hong, Chiu and Dweck (2001) assert that incremental vs. entity theories of human nature in fact provide different meaning systems for interpreting all kinds of behavior. These preconceptions, in turn, "influence susceptibility to stereotyping, perceptions of group homogeneity, the ultimate attribution error, intergroup bias, and discriminatory behavior" (p. 156).

Implicit theory and goals. The implicit theory mindset model proposed by Dweck, Chiu, and Hong (1995a) places goals as "central constructs…. the two implicit theories create an emphasis on different goals, and the goals, in the context of the theories then set up different cognitive, affective, and behavioral responses" (p. 322). These goals correspond to beliefs, so that holding an entity belief of achievement orients an individual toward performance goals—and a vulnerability to holding attributes and responses that emphasize helplessness and holding an incremental belief leads to learning goals and a more improvement and

mastery-oriented response (Dweck et al., 1995a).

In another study of college students (reported in Dweck, Chiu & Hong, 1995b) participants differed based on the theory of intelligence they held, entity or incremental. Students embracing an entity theory agreed significantly more with these kinds of statements:

- *If I knew I wasn't going to do well at a task, I probably wouldn't do it even if I might learn a lot from it.*
- *Although I hate to admit it, I sometimes would rather do well in a class than learn a lot.*

On the other hand, students holding an incremental theory agreed significantly more with statements such as:

- *It's much more important for me to learn things in my classes than it is to get the best grades.*

In this implicit theory mindset model, beliefs inform a person's goals. Learners with entity beliefs hold performance goals and tend to shy away from challenge. Those with incremental beliefs tend to establish learning goals (also called mastery-oriented goals) and persist through challenge in order to reap the perceived benefits of learning and growing from the experience. In this way, beliefs can carry both past experience and portents of future achievement and persistence. In a study of 373 students entering middle school, Blackwell, Trzesniewski, and Dweck (2007) found that the belief that intelligence is changeable (in other words, an incremental mindset) predicted an upward trajectory of math learning over the next two years. These students were also more likely to have positive effort beliefs, learning goals, low helpless attributions, and positive strategies. On the other hand, students who held fixed,

entity beliefs tended to have a flat trajectory of learning; it appears the beliefs that these students held cost them improvement and growth.

Implicit theory and response to challenge. Just as the attachment relationship representation of the internal working model is tested under stress (Ainsworth, 1978/1967), so is a person's attribution mindset. When learners are presented with a challenge, especially in the form of negative feedback, their theories of intelligence guide their reactions. It is in this fragile place that beliefs, which have led to goals, then produce action.

Hong, Dweck, Chiu, Lin, and Win (1999) examined what actions might result from the beliefs and goals a learner sets, particularly in coping with negative feedback. Entering college freshmen in Hong Kong were asked to complete a questionnaire indicating the likelihood that they would take a remedial course in English language. Researchers predicted that:

> …Entity theorists would be less likely than incremental theorists to take remedial action (a) because within an entity theory framework, intellectual ability is believed to be unalterable, so that continuing to try may not be seen as fruitful, and (b) because if entity theorists persisted and took remedial action but still performed poorly, this would only confirm their low ability. Thus, entity theorists may be reluctant to take remedial action even when the skill in question is critical to future success and their present skill level is inadequate (Hong et al, p. 593).

The results bore out this prediction, but only among the students who did not perform well in English class. Those who performed well did not differ in

their answers about remediation, probably because there was no need for it.

However, among those students who had unsatisfactory grades in English,

incremental theorists sought after remediation more than entity theorists. Thus,

students with an incremental theory of (in this case) English language learning

were more likely to take action in response to negative feedback, whereas those

students with an entity theory were not as likely to do so, even when they knew

how important those skills would be and when they understood that the remedial

course improved language proficiency (Hong et al, 1999).

Interestingly, Hong and colleagues (1999) also discovered that

incremental and entity theorists may even define "ability" differently. Entity-

based learners think of ability in terms of trait-reliant, fixed ability. Incremental-

based learners consider ability to mean a measure of their current level of

expertise, a snapshot in time of their malleable ability.

What about parents? Where are the parents in this body of research?

Several studies have examined the parents' roles in *their children's* implicit

mindsets. Pomerantz, Grolnick, and Price (2005) reviewed several aspects of

parents' roles in contributing to how their children approach achievement,

including structure versus lack of structure, involvement vs. lack of involvement,

autonomy support vs. control, and process vs. person focus. The last

dichotomy—process vs. person focus—addresses parent beliefs in the implicit

theory model.

Process-focused parenting emphasizes learning and effort, including

acknowledging hard work, emphasizing the learning process, and reminders about

the importance of effort. On the other hand, person-focused parenting prioritizes

talent and in-born traits. These parents might praise intelligence, express

disappointment with grades by "linking children's worth to their performance"

(Pomerantz et al, 2005, p. 264), and push their children to focus on end product

(performance) rather than the process of learning. Research underscores the

effects of this particular kind of parent influence (Mueller & Dweck, 1998, for

example). The types of feedback and praise that parents give, for example, can

make a lasting impact on how their children view and approach learning. (e.g.,

Gunderson et al., 2013). Children given praise aimed at the process--with an

emphasis on incremental effort rather than on trait-based attributes--are more

likely to see ability as malleable, to persist longer and perform better in the face of

challenge, to adopt mastery goals, and to express positive affect (Mueller &

Dweck, 1998).

Applying this research to the domain of parenting, the distinction between

performance goals and learning goals may be particularly telling. Performance

goals tend to be parent-focused and oriented around short-term needs whereas

learning goals are more relationship-focused or child-focused and more long-term

(Hastings and Grusec, 1998). In a series of three studies studying parents' goals

during disagreements with young children, Hastings and Grusec (1998) set out to

identify and quantify whether goals served as important precursors of parenting

behavior. They found that parents who hold parent-focused goals are more likely

to have negative affect and to be controlling and punitive in their parenting.

Instructions to focus on parent-centered goals resulted in increased negative affect

and decreased sympathy for children; instructions to focus on relationship-

centered goals decreased negative affect and increased sympathy for children.

Interestingly, goals seemed to adapt to situations; public settings increased the

emphasis on parent-focused goals, echoing Smetana's (1994) assertion that parent

goals should be thought of as both situationally dependent and trait-based. Kaplan

and Maehr (2007) explain, "a motivational theory such as goal orientation theory

should be able to explicate the core processes that result in the situational

construction of a goal orientation and the role of dispositions enthuse

constructions" (p. 174).

In a study that activated parents' short term, parent-focused goals

(Grolnick, Price, Beiswenger & Sauck, 2007), mothers who were told that their

children were being evaluated spent more time trying to control their

"performance" by giving their child the answers than mothers who were not under

evaluative pressure. In addition, mothers with high contingent self-worth—in

other words, those mothers whose self-esteem hinges on their child's

performance—were the most controlling group.

Just how contagious are these parental beliefs to children? In a study

where mothers reported daily on their conversation with their children about

school, those who tended to use entity-based feedback influenced their children to

the extent that, six months later, their children tended to avoid challenge and

viewed ability as unchangeable (Kempner & Pomerantz, 2003). Parents interpret

feedback and other information for their children through the filter of their own

beliefs and attributions of the nature of their children's abilities (Pomerantz et al.,

2005) and children create their own approaches and theories largely through this lens (see Dweck & London, 2004).

These parent interpretations often become a kind of self-fulfilling prophecy. Their perceptions of their children's academic functioning are contagious to their children, especially in the cases of entity-minded parents. In a two-wave, yearlong study (Pomerantz and Dong, 2006) of 126 children and their parents, mothers' high entity mindsets predicted their children's negative academic performance and affective functioning over that year. In addition these attributions foreshadowed their children's attributions and mastery orientation. Thus children who were performing less well believed their parents about the fixedness of academic functioning and incorporated that mindset into their own thinking and effort.

This question of malleability or fixedness of ability also influences parental involvement in children's learning. Moorman and Pomerantz (2010) considered the role of the mother's mindset regarding her child's ability in the quality of involvement in children's learning. The researchers hypothesized that parents with an entity mindset would likely believe that ability is innate and think that their involvement would not make a difference in their child's performance in school which would affect their engagement in their child's education. In this case, any goals for participation would more likely take the form of more controlling, unconstructive involvement in trying to help demonstrate rather than develop competence, emphasizing performance rather than learning. The research findings confirmed this hypothesis. Mothers who were primed with an entity

mindset demonstrated more unconstructive involvement during a challenging

teaching task. These interactions included performance-oriented teaching, control,

and negative affect.

The effect on children of this kind of maternal, performance-related

control is almost immediate. Moorman and Pomerantz (2008) found that the

more controlling a mother was one minute, the less mastery-orientation her child

demonstrated the next minute.

Parents as Learners: Meta-Parenting Mindset

While parents are certainly important in the context of their children's

development—and their beliefs about learning influence their children's own

approaches to achievement—the consideration of *parents* as learners in the

domain of parenting with mindsets themselves is remarkably absent from the

research literature on attribution and implicit mindsets. The fact that parents are

only mentioned in relation to their children's learning achievement is a glaring

oversight. Goodnow (1988), noting a similar gap in research about parent

cognition generally, said:

> To focus on parents' overt behaviors is to treat parents as unthinking
>
> creatures, ignoring the fact that they interpret events, with these
>
> interpretations probably influencing their actions and feelings…[creating]
>
> the anomaly of developmentalists paying close attention to children's
>
> interpretations of events but attributing little cognitive life to parents. (p.
>
> 287)

Research about implicit theory and mindsets has focused on certain

domains of learning—especially academic learning and achievement for younger

learners—but has attributed very little "learning life" to parents. Researchers

have neglected to take a closer look at parents and how they approach the domain

of parenting as learners, instead treating the area of parenting and parenting

beliefs as completely distinct from learning theory with no overlap.

   This striking gap in research calls for a closer look at the potential in studying

the intersection of implicit theory *mindset* (Dweck, 2006) and parent beliefs about

the nature of parenting, or *meta-parenting* (Hawk & Holden, 2006), to form a new

area of inquiry, *meta-parenting mindset*.

   By combining parent belief research and implicit theory research, both

theoretical approaches will benefit and be illuminated in the cross-section.

Parenting as a domain of knowledge and mastery has many elements in common

with the other research on learners. Parenting has the potential to be considered

entity-based by some (e.g., common sentiments such as "you're a born mother,"

"I'm not cut out to be a good father") and incrementally-based by others (e.g., "I

learn a little more every day," "my baby is teaching me how to parent him," or

"little by little you learn from each other").

   Despite commonalities with other domains, parenting as a body of knowledge

has some unique qualities. With the expected arrival of their first child, parents

encounter an entirely new opportunity for learning and mastery in their new role

as parents. Parenting is especially unique as a domain of learning in that it is

encountered for the first time as an adult. This later learning process may be

influenced by longer-held patterns of learning attributions.

Second, parenting learning inherently holds particularly high stakes in that the domain affects not just the learner but also, very directly, the child of the learner. This pressure might lead parents to be more motivated to acquire the parenting abilities they seek, given how important that process can be to the parents themselves as well as to the children. Conversely, parents who might hold a more entity-based approach to parenting might be more likely to defend their successes and failures as trait-based. Nussbaum and Dweck (2008) note that an entity-based approach can prevent growth, especially in consequential tasks that are crucial to a person's success or at the heart of one's identity.

The research that perhaps comes the closest to examining meta-parenting mindset, the study of maternal sense of control, reveals some key insights regarding parent beliefs and attributions (see Bugental, Mantyla, and & Lewis, 1989; Bugental & Lewis, 1998/1989; Donovan, Leavitt, & Walsh, 1990/1997; Lovejoy, Polewko, & Harrison, 1996), especially regarding parents whose beliefs include unrealistic, or "illusory," beliefs about their ability to control a situation. Donovan and colleagues (1990/1997) studied parents' responses to the performance demands of caring for their children with the hypothesis that maternal response is determined by, among other things, mother's attributions about success.

Following Seligman's classic learned helplessness paradigm (1975), mothers were asked to estimate their perception of control over stopping an infant's cry and then were exposed to a cry that they were unable to stop. Women with an illusory sense of control (that is, they reported a high ability to sooth

infants' cries) showed learned helplessness when faced with cries they couldn't resolve. They showed physical signs of defensive arousal such as increased heart rate and depressed affect and they were less likely to persist in the lab setting a week later when alternative effective responses were offered (Donovan et al, 1990). In a subsequent study (Donovan, Leavitt, & Walsh, 1997) mothers with high illusory control had more difficulty reading the nuances of infants' signals and were less sensitive in distinguishing between different kinds of cries. This learned helplessness response sounds very similar to learners with entity-theory mindsets in the implicit theory research.

Bugental and Lewis (1998) found similar results in their studies of "powerless" parents, those who feel they have less power or control than their children. These control beliefs echo many of the indicators and outcomes of entity-based mindset about learning. Indeed, the study shows that powerless mothers demonstrate physiological arousal similar to illusory control mothers: increased heart rate, impaired information-processing abilities. They exhibit learned helplessness and do not engage in problem solving when the opportunity arises. They are overly harsh in their reactions and display pessimistic thinking (Bugental et al., 2000).

Research on Interventions and Beliefs

Examining a parent's approach to parenting in terms of incremental- or entity-based thinking may hold particular value in understanding the process of becoming a parent. In addition to providing interesting opportunities to better understand parenting, this research will also give new insights into parenting

interventions and potentially inform the development of better interventions in cases where beliefs about parenting may be compromising either the parent-child relationship or participation in interventions designed to assist them.

Interventions and Beliefs

The relation between beliefs and intervention has been explored in other disciplines. For instance, the public health field developed the Health Belief Model in the 1950s to explain the lack of utilization of health services like immunizations. The Health Belief Model articulated several elements that contribute to health behavior: the perceived susceptibility to and severity of illness, the perceived benefits, and the perceived barriers (Rosenstock, 1974) and has been used to evaluate public participation in a wide spectrum of programs, including dental care (Kegeles, 1967), genetic testing (Becker, Kaback, & Rosenstock, 1975), breast self-exams (Champion, 1990), and mothers' utilizing clinics and health services (Becker, et al., 1977; Dawkins, Ervin, & Weissfeld, 1988; Kviz, Dawkins, & Ervin, 1985). Maternal beliefs about healthcare are significantly related to the likelihood of accessing services that, in turn, are related to infant health (Tinsley & Holtgrave, 1989). Parent health belief and behavior, especially concerning the beliefs about external or internal forces on outcomes, have been used to operationalize general health motivation (Bates, Fitzgerald & Wolinsky, 1994a, 1994b).

In the realm of academics and learning, Dweck and her colleagues have conducted interventions in many of their studies based on learners' beliefs. Interventions with students, targeted to help them consider a more incremental

approach, have been fairly successful in re-orienting their approach toward a

growth mindset. Brief lessons in the malleability of intelligence, for example,

have yielded improved scores in students compared to control groups (Dweck &

London, 2004). Teaching students and helping them reframe their beliefs about

the nature of their own abilities into an incremental approach improved their

response to obstacles by changing learner's responses to setbacks. For example,

Dweck and London (2004) report:

> In three studies, we found that following negative feedback, participants'
>
> decisions to either try to improve or to simply make themselves feel better
>
> depended on whether they had been induced to believe that intelligence
>
> was fixed or malleable. We also confirmed…that participants induced to
>
> hold entity and incremental theories were both able to restore their self-
>
> esteem to its original level, although in different ways…each of the
>
> current studies was carefully designed to present participants with a clear
>
> opportunity to either improve or to respond defensively. (p. 610)

Those students who believed ability is static engaged in defense mechanisms in

the face of challenge. Interestingly "attempting to improve was a salient option

but, at least in the eyes of many entity participants, it was not their preferred

option" (p. 610). However, Nussbaum and Dweck (2008) found that those

participants who were led, through a short intervention, to believe in the

opportunity to grow and improve tended to choose to do so.

Although they originated in an academic context, implicit theory

interventions have exploded recently into a wide range of disciplines and

domains, including peer relationships (Schleider, Abel, & Weisz, 2015), teaching

skills (Thadani, Breland, & Dewar, 2015), athletics (Ommundsen, 2003),

leadership (Burnette, Pollack, & Hoyt, 2010), courage (Rate, Clarke, Linksay, &

Sternberg, 2007), shyness (Valentiner et al., 2013), and weight loss (Burnette,

2010) to name just a few. In fact, a recent (May 2015) Google Scholar database

search for implicit theory intervention research literature yielded 203 results of

studies published in the first five months of 2015 alone. No results emerged at all

from a similar search (May 2015) for implicit beliefs about parenting.

Interventions and Parenting Beliefs

The connection between beliefs and interventions has been explored in the

field of parent education. In fact, several parenting interventions, including the

Circle of Security program (Marvin, Cooper, Hoffman, & Powell, 2002), Dozier's

(2001) Attachment and Biobehavioral Catch-Up intervention, and Chaffin's

(2009) motivational intervention for parenting program retention, have found

success addressing the reframing of other kinds of parenting beliefs.

The Circle of Security program. The Circle of Security program is an

attachment-based parenting intervention aimed at improving caregiver-child

relationships in high-risk families where the patterns of interactions have become

unhealthy and based on miscues to each other (Marvin, Cooper, Hoffman, &

Powell, 2002). In the course of the program, caregivers come to understand that

they are helping to contribute to an unhealthy feedback loop and have the ability

to better understand and reframe the child's attachment behavior. The intervention

addresses a remediation of a specific kind of parenting belief, the "[internal

working models] of attachment-caregiving of this particular child" (Marvin et al., 2002, p. 115).

This particular reframing of beliefs has demonstrated success in the attachment classifications of both child and caregiver: "Preliminary results suggest a significant shift from Disordered to Ordered child attachment patterns (from 55% to 20%), an increase (from 32% to 40%) in the number of children classified as Secure, and a decrease in the number of caregivers classified as Disordered (from 60% to 16%)" (Marvin et al., 2002, p. 122).

Attachment and Biobehavioral Catch-up Intervention. Mary Dozier and colleagues have created an attachment intervention for foster mothers and the children they parent. The Attachment and Biobehavioral Catch-up (ABC) Intervention acknowledges that the caregiving relationship between foster parents and their foster children experience great challenges in establishing secure attachments. These difficulties stem from both sides of the relationship; therefore ABC established two components: "The first helped caregivers provide nurturance even when children did not elicit nurturance. The second helped caregivers to provide nurturance when it did not come *naturally* to them" (Dozier, Lindhiem, Lewis, Bick, Bernard, & Peloso, 2009, p. 325, emphasis added).

Specifically, the intervention consisted of ten training sessions attended by the foster mother, "helping caregivers learn to re-interpret children's alienating behaviors, helping caregivers over-ride their own issues that interfere with providing nurturing care, and providing an environment that helps children develop regulatory capabilities" (Dozier et al., 2009, p. 327). The researchers, in a

randomized and controlled trial, found their intervention to be effective in

enhancing the children's capacity to seek support from caregivers as well as

helping the children develop better regulation processes, both biological and

behavioral. Children whose foster parents had received the training through the

ABC intervention showed less avoidance than children in the control group

(Dozier et al., 2009).

This process of educating caregivers to re-interpret and over-ride their

beliefs may inform other work helping caregivers reframe their beliefs and

attributions about the nature of parenting. It also speaks to the incremental

approach to the domain of parenting. In fact, another interpretation of the data

relevant to the present study could be that by helping foster parents understand

that their capacities for caregiving were not fixed and entity-based, but rather

malleable and incremental, caregivers were more motivated and able to access the

training they were provided. The researchers hinted at this when they discussed

the component aimed at improving caregiving skills when such caregiving did not

come "naturally" to them, as mentioned above. While the intervention targets

both sides of a potential breakdown in the caregiving relationship, both when the

child doesn't elicit nurturance and when the caregiver can't respond in a nurturing

way, in fact the solution for this intervention is aimed solely at the caregiver's

beliefs no matter the origin of the problem. This approach could be instructive for

other parent belief-based interventions.

Motivational pre-treatment to parenting interventions. Chaffin, Valle,

Funderburk, Gurwitch, Silovsky, Bard, McCoy and Kees (2009) created a

motivational intervention in advance of a parent's participation in a parenting

program in order to test whether it would improve program retention. The

motivational program consisted of six group sessions including testimonials from

parents who had already successfully completed the parenting programs, exercises

designed to assist parents in developing parenting goals, and encouraging parents

to commit to a plan for change. This tapped into a very incremental-theory

approach and highlighted the potential for improving parenting capacity,

communicated through the expectations of program therapists and past

participants as well as elicited from the participants themselves.

　　　　In a randomized, controlled trial of parenting program participants,

researchers (Chaffin et al., 2009) found that this pre-treatment significantly

improved retention, especially for those parents who measured low to moderate in

motivation at the outset. Without the pre-treatment, participant retention was

comparable to traditional parenting education programs and interventions. They

posit that addressing motivation before an intervention "may create a window of

opportunity for improving retention beyond what is customary through the

selective use of motivational approaches" (Chaffin et al., 2009, p. 365).

　　　　The above interventions indicate that interventions can target parent

beliefs effectively and that doing so can potentially increase the effectiveness of

the program. However, it is important to note that to date implicit beliefs about

parenting learning and mastery (or meta-parenting mindset) have not been

explored in relation to parents--neither in intervention practice nor research.

　　　　If parents who hold an entity theory about parenting believe that their

parenting abilities are trait-based, how likely will they be to engage in interventions that are aimed at improving abilities that the parent does not believe are changeable? How likely will that parent be to stay in the program over the term of the intervention? And, conversely, how much more likely is it that a parent will participate in a program if he or she understands that parenting capacities can grow and develop?

Implicit theory research demonstrates that changes in beliefs can lead to considerable benefits in increasing capacity and mastery. The implications for this kind of research—for combining our understanding of parenting with our understanding of attributional learning theory and implicit theories—could inform how we intervene and how we prepare parents for those interventions. By examining parents' beliefs about the nature of parenting, entity or incremental, we may unravel some of the knots of intervention, including inconsistent or inconclusive outcomes and some of the mysteries of program retention, program engagement, and behavior change.

This possibility of exploring parent beliefs about the learning domain of parenting may be particularly important in seeking to understand how to assist new parents who are especially at risk or vulnerable. This is the case in the present study, where the participants are adolescent mothers enrolled in a home visiting intervention designed to support them in their transition to parenthood.

Home Visiting Program Interventions

Home visiting programs have become one of the fastest growing prevention models in the United States. Designed to improve child

developmental and health outcomes and prevent child abuse and neglect, home visiting interventions seek to reduce barriers to accessing services by meeting with at-risk parents in their own homes (Daro & Harding, 1999; Krysik, LeCroy, & Ashford, 2008; Newman, 2007).

The home visiting program approach entails more than just the location of its services but also its accompanying core strategies of service. While the details of the various home visiting programs vary, there are commonalities across programs (Newman, 2007; Wasik, 2001). At-risk, typically adolescent mothers receive support services in their own homes, allowing service providers ("home visitors") the chance to interact with adolescent mothers in their own environment and observe their interactions with their babies in a natural setting. Home visiting programs generally offer an array of services including child development information, parenting education, and linking families with other community resources and services. Participation is voluntary, individually determined, and designed to be responsive according to family need. Underlying the intervention design is the concept that intervening at the earliest point in parenthood—in fact, during pregnancy if possible—will enhance families' capacities to be effective parents and foster healthy child development. The program operates under the theory that early, nurturing relationships create the foundation for healthy trajectories and lifelong development.

The home visiting model has been on the rise in recent decades, receiving momentum from national interest in early child development and prevention programs, some positive findings in studies, and a compelling service delivery

model (Gomby et al., 1999; Krysik et al., 2008; Olds et al., 2002; Tandon et al., 2005). In addition, the steady increase over the last 20 years was, in part, boosted by an endorsement by the US Advisory Board on Child Abuse and Neglect in 1991 (cited by Krysik et al., 2008) as well as the more recent Patient Protection and Affordable Care Act of 2010 which authorized $1.5 billion over five years for evidence-based home visiting (Avellar & Supplee, 2013).

The evidence of effectiveness has been an issue of discussion as more evaluation research has examined various aspects of home visiting programs in recent years. Some studies have underscored the benefits of the home visiting model (Gomby, Culross & Behrman, 1999). The regular, ongoing interactions in a parent's own environment allow service providers to better identify a family's strengths and challenges (Damashek, Doughty, Ware & Silovsky, 2010). The model seems to reduce barriers of access for at-risk families who are often hard to reach. Some research has indicated that home visiting promotes close relationships between client and service providers; the support of these relationships, in turn, can facilitate better outcomes. The home visiting model appears to show some promise in improving maternal and child health (McCurdy & Daro, 2001) and reducing negative parenting behaviors and attitudes (Daro & Harding, 1999).

Yet research findings of home visiting effectiveness have been mixed (Gomby, Culross & Behrman, 1999; Tandon, Parillo, Jenkins & Duggan, 2005), varying with the study design, the outcome measures used, the implementation of the intervention, level of fidelity to the model, and the time frame of the follow-up

(Chaffin, 2009; Krysik et al, 2008; Lundahl, Nimer, & Parsons, 2006; Nelson, Westhues, & McLeod, 2003; Moss et al., 2011). These inconsistent results have led researchers to wonder whether implementation differences influenced outcomes (Gomby, Culross & Behrman, 1999; Harding et al., 2007).

Each program model tends to articulate a variety of additional goals beyond the core aims of child abuse prevention and improving child developmental outcomes. These additional goals range from improving pregnancy outcomes, reducing subsequent teen pregnancy, and enhancing school readiness. In addition, the specific implementation criteria may differ in length of program duration, frequency of home visits (dosage), eligibility criteria or at-risk profile of participants, and the education and training background of the home visitors— some programs employ nurses and some employ paraprofessionals and community members, for example.

A recent systemic of 71 paraprofessional home visiting program evaluations (Peacock et al., 2013) found that the programs were associated with decreases in harsh parenting and improved outcomes in young children in areas such as cognition and language development, weight-for-age, reduction in child health problems, and reductions in low birth weight. However, findings that were not statistically significant were much more common across the studies than significant ones. The reviewing researchers noted that program effectiveness was greatest when programs used a higher dose of the intervention over a longer period of time, when mothers begin the program prenatally, when paraprofessionals are trained adequately, and in cases where the program narrows

its focus to a particular issue rather than addressing multiple problems (Peacock et al., 2013, p. 11).

Healthy Families

Healthy Families Massachusetts (HFM), the program serving participants in this study, is a state-based chapter of a national model of home visitation called Healthy Families America (HFA). The program evolved from a project created by the National Committee to Prevent Child Abuse (now called Prevent Child Abuse America) in partnership with the Hawaii Family Stress Centre, where the initial program was piloted (Daro & Harding, 1999).

HFA originally articulated three major goals: promoting positive parenting, encouraging child health and development, and preventing child abuse and neglect. Over time the list of targeted outcomes has evolved to include other outcomes nested within those goals, including increasing use of prenatal care, improving school readiness, decreasing dependency on welfare, increasing access to primary medical care and increasing child immunization rates (Harding et al., 2007).

HFA sites offer services that start prenatally or at birth and continue through the first three to five years of the child's life, as set by the local chapter program. Initially, participants in HFA are offered at least one home visit per week through the first six months after the baby's birth, after which visits may be less frequent as determined by family need and local programs. Visits typically last at least one hour.

Evaluations of Healthy Families America have demonstrated some

favorable findings. Recently a review of home visiting program effectiveness, Home Visiting Evidence of Effectiveness (Avellar & Supplee, 2013) included a review of research quality and assessment of program effectiveness in order to ascertain which home visiting programs were meeting the Patient Protection and Affordable Care Act's standard of effectiveness based on rigorous evaluation research. Healthy Families America was one of the 12 (of the field of 32) models that met the Act's standard, demonstrating favorable outcomes in four of five named areas: health care, birth outcomes, child development, and reductions in child maltreatment—second only to Nurse Family Partnership's result of five outcome areas (Avellar & Supplee, 2013, p. S93)

A review (Harding, et al., 2007) of 33 Healthy Families America evaluation studies found the strongest demonstrated outcomes in the parenting domain, with greatest impacts on parenting attitudes and home environment; this is consistent with other reviews of HFA and home visiting in general (Daro & Harding, 1999; Gomby, 2005). A majority of studies also demonstrated at least one positive child health outcome—usually related to breastfeeding or birth outcomes (Harding et al., 2007) and modest but consistent impact on the reduction of maternal depression in five of eight rigorous studies (http://homevee.act.hhs.gov). These positive indicators give much reason to hope for the future of HFA. As one team of researchers commented, "positive findings to date may be considered indicators of what *can* be achieved by this model and replicated in other sites by gaining a better understanding of requisite practices" (Harding et al., 2007, p. 174).

However, as with general home visiting evaluation findings, many HFA studies have yielded no or modest effects on many outcome measures (Gomby, Culross & Behrman, 1999; LeCroy & Whitaker, 2005; Tandon et al., 2005). For example, though maternal depression and self-reports of child maltreatment decreased among HFA participants compared to control groups, most studies found no impact on confirmed reports of maltreatment, a major benchmark goal of the program (Harding et al., 2007).

As a result of these mixed findings researchers, programs, and policy makers have called for an increase in implementation studies to parse specifics that may influence effectiveness of the program. In their early review of home visiting, Gomby and colleagues recommend that "existing home visitation programs should focus on efforts to enhance implementation and the quality of their services" (Gomby et al., 1999, p. 24).

These implementation and process evaluations have raised several possibilities to explain home visiting's "modest successes." Gomby, Cullross, and Behrman (1999) raised the potential explanation that implementation variability may be one cause of mixed outcomes in home visiting. In fact, many programs do vary from each other; in one implementation evaluation, Harding et al. (2007) found that while all sites may offer weekly visits, in reality the intensity and duration of services vary widely. Such variety in implementation may also affect quality of services but without a standardized measure of quality, such differences are difficult to measure and even more difficult to understand the effect of variations in quality on outcomes.

Evaluators have also examined participant factors that may influence the program's success. For instance, Harding and colleagues (2007) assert that many home visiting programs hold "the general assumption that family risk level is comparable across sites. This is not the case with HFA" (p. 172). This can be viewed as both a challenge and an opportunity. For example, recently researchers have noted that the high prevalence of maternal depression in home visiting participants may impede treatment impact of home visiting programs while also providing a promising vehicle for intervening where other programs may not (Ammerman et al., 2010; Duggan et al., 2004; Easterbrooks, et al., 2013). This demonstrates both the promise and challenge of home visiting—the same at-risk qualities in parents that make home visiting a well-suited program to reach parents in their homes in a particular, individual way also present increased barriers to treatment and difficulty in measuring and demonstrating a quantifiable effect overall given the vast diversity of experiences and factors in at-risk parents' lives.

The present study proposes that there may be another additional element to explain program outcomes and retention rates: whether or not a parent believes that her parenting ability is actually subject to improvement, or in other words, whether she holds an incremental mindset or a fixed mindset about the domain of parenting. If, for example, a young mother believes her parenting abilities are fixed, will she be less motivated to remain in an intervention designed to improve those abilities?

Program Retention

Early parenting interventions, although varied in scope and theory, are typically designed with the common goals of strengthening parents' knowledge about parenting and child development, supporting their abilities to parent, and providing resources for promoting the healthy development of their young children (Korfmacher et al., 2008). Most of these programs particularly target families with multiple risk factors, such as poverty or teen parenthood, and recognize the importance of the critical early years of child development in both setting the pattern for nurturing parenting as well as helping to improve a child's educational and social/emotional trajectory as early as possible (Shonkoff & Phillips, 2000; Gomby, Culross, & Behrman, 1999).

Low parent participation and retention rates pose significant challenges for parenting intervention programs. The attrition rates (defined here as ceasing participation before completing the intervention, for whatever reason) vary; in one survey of studies, between 20% to 68% of families leave programs before completing the full intervention and many of those only complete a small portion of the scheduled visits or meetings (Gomby et al., 1999). No-shows, cancelled appointments, and early departure from programs can be costly for service providers and, more importantly, can reduce the intervention's benefits to the families (Ingoldsby, 2010).

Healthy Families Program Retention

McGuigan, Katzer, and Pratt (2003) undertook an evaluation of a Healthy Families program in Oregon with the aim of finding out how various factors and

different domains influence retention. Their study revealed that 45% of the

participants exited the program before completing the first year. Among the 1093

mothers in the evaluation, retention was less likely in communities of high

violence and more likely when the provider (in this case, a home visitor) received

more hours of direct supervision. As a result, the researchers underscored the need

for the Oregon Healthy Families program to adapt to fit the needs of violent

communities and recommended that the program be more flexible in meeting the

scheduling needs of young mothers and more supportive of home visitors by

increasing the amount of direct supervision hours they receive.

A multi-site evaluation of 17 Healthy Families sites (Daro, McCurdy,

Falconnier, & Stojanovic, 2003) used a random sample of 816 participants to

study the influence of participant, provider, and program factors on participation

rates as measured by length of stay and number of visits. As a result of their

finding that participant/provider match regarding race and ethnicity and

parenthood improves parent participation rates, the program was advised to pay

attention to assigning home visitors to families who share their race and ethnicity

and who are also parents themselves. In addition, the researchers noted that the

two programs with the highest rate of retention were nested within community-

based agencies that were centerpieces of their communities and suggested the

programs look into the value of nesting the services within similarly established

and respected community organizations (Daro, McCurdy, Falconnier, &

Stojanovic, 2003).

In yet another Healthy Families program evaluation (Ammerman et al.,

2006), researchers studied the predictors of engagement in the first year of participation in the Ohio/Kentucky program. They found that engagement (where, in their definition, engagement = duration + quantity + consistency) was associated with mental health history, decreased social support, and increased stress; mothers who reported more adversity and risk factors in turn participated longer in the program and had more visits. As a result, the program was advised to alter the intervention so that needier mothers receive an increased standard of care while mothers who need fewer visits still receive valuable information according to their needs.

Ammerman and colleagues (2006) also noted a need for program content changes in addition to the program delivery modifications mentioned earlier. Noting that the most active participants in that particular program tended to be those with increased risk and stress and decreased social support, the evaluators called for an enhanced curriculum to meet their increased psychosocial needs and to increase the program effectiveness.

Overall, these adaptations emphasize that parent involvement in parenting interventions is best encouraged through strategies that are adapted to a specific program and setting, with the ability to tailor to individual participants. While most of the programs used the same Healthy Families model, interestingly each evaluation articulated particular suggestions for modification specific to the program's setting. Where one program needed to adapt to fit the needs of a violent community, another needed a curriculum change to reflect the increased psychosocial needs of that population. Therefore, flexibility is crucial;

implementation problems can limit programs' success unless programs adapt and improve service quality and delivery (Gomby, 2007).

Summary

In summary, the present study explored themes of meaning making and beliefs of adolescent mothers in the transition to parenthood, beginning with more general beliefs about parenting and meaning making of parenthood and moving on to explore a particular set of beliefs about learning parenting, implicit beliefs of parenting or meta-parenting mindset. The literature in these areas—transition to parenting, meaning making, parent beliefs, implicit belief, interventions, and home visiting programs—provided necessary grounding and crucial insights that informed the study's design and analysis.

Research on adolescent mothers and the transition to parenthood provided a subset of beliefs to explore with this population, in particular in examining the phenomena where the transition to parenting becomes a positive, transformative event in the life trajectories of some young mothers.

From the parenting belief literature, research on the internal working models of attachment and caregiving highlighted the long-lasting and intergenerational power of parental beliefs as well as the potential for making meaningful interventions and changing behavior by concentrating at the level of beliefs. Parent cognition research added to the conversation by emphasizing the learning and cognitive growth that characterizes parenting processes.

Implicit theory mindset research contributed its unique perspective. Understanding whether parents hold a meta-parenting mindset about the

malleability or fixedness of parenting capacities may help us better understand how to help, particularly in cases where continued obstacles challenging fixed mindsets may have led to a form of parenting learned helplessness or non-participation in parenting interventions. Parenting research has not yet examined these constructs in this specific way but the apparent applicability of these ideas to each other warrants taking a closer look at the possibility of creating the concept of meta-parenting mindset.

Chapter 3: Methods

In the present study I sought to understand and illuminate parenting beliefs and meaning making on two levels. First, I examined the more general beliefs about parenting and meaning making of adolescent mothers regarding their transition to parenthood with an eye toward instances where the transition was particularly transformative for the new mother. Next, I explored a particular subset of parenting beliefs—their implicit beliefs about parenting and considered how those beliefs about learning to be a parent might align with their retention in a home visiting program.

Using a qualitative approach allowed the individual experiences of each participant and the nuanced variations between participants to come to the foreground. Assessments of beliefs and meaning making occurred both directly before and within a year after childbirth, allowing for an exploration of beliefs both in theory (during pregnancy) and in practice (postpartum). This particular feature of the study also helped to give a sense of the impact of the event of parenthood on the individual participants. As Smith (1999) notes, "some of the most insightful work on pregnancy and transition to motherhood can be found in the published personal accounts of women describing the process themselves" (p. 283). In the present study, understanding each individual woman's account of the transition was prioritized first before moving towards comparative analysis and drawing inferences about different groupings and patterns that emerged.

Design

The data used in the present study were collected from a longitudinal

evaluation of the home visiting program for adolescent mothers, Massachusetts Healthy Families Evaluation, Cohort 2 (MHFE-2) at Tufts University. MHFE-2 is an experimental, randomized controlled trial (RCT) evaluation of Healthy Families Massachusetts based in the Tufts Interdisciplinary Evaluation Research (TIER) lab. The large-scale study is designed to examine outcomes and program implementation and evaluate whether HFM is meeting its goals; however, it also aims "to examine the ways in which participants' personal, family, program, and community contexts influence and/or explain program utilization and program outcomes" (TIER website, 2014).

The MHFE-2 evaluation design includes two sub-studies: the quantitative methods impact study, which aims to identify outcome differences between program and control groups, and the mixed methods integrative study, which seeks to understand the reasons behind those outcome differences (Goldberg et al., 2009). The present study used qualitative data in the form of interviews from the integrative study at Time 1, gathered shortly after program enrollment, and Time 2, collected a year later.

The total sample size for overall MHFE-2 study was 689. Study participants were young women (either pregnant or parenting) who were referred from 18 HFM sites across Massachusetts. Participants were referred and invited to participate in the study if they were female, over 16 years old, able to cognitively understand and provide informed consent, new to the HFM program, and either English- or Spanish-speaking. Those young women who consented to (1) participate in the research interviews over three years, (2) receive home visits, and

(3) release their records to researchers were then randomly assigned to either a program group (Home Visiting Services group [HVS]) or control group (Referrals and Information Only group [RIO]). As mentioned above, within that sample, a smaller group of participants agreed to in-home research interviews over three years (Integrative Study Group). The participants in the present study were drawn from this sub-sample in the Integrative Study Group of HVS participants.

MHFE-2 was an appropriate and well-matched choice for site selection for the present study, particularly because the participants are young mothers in the transition to motherhood. Additionally, the MHFE-2 study's emphasis on personal contexts and program utilization within the HFM program and the accompanying open-ended questions on parenting, parenting beliefs, and program participation intersect well with the purposes of the present study.

Methodological Framework for the Present Study

This was both an exploratory and comparative qualitative study using a combination of phenomenology and grounded theory methodology best summed up as the "Miles and Huberman" approach (Miles, Huberman, & Saldana, 2014). This method resists classification to any one particular genre of qualitative research. The approach includes multiple stages of selectively coding qualitative data, making initial inductive inferences, comparing and contrasting the coded data in the search for patterns and themes, and gradually drawing inferences from the data segments toward a cumulative set of conclusions. The study followed the sample of 40 women over time, from an initial interview during pregnancy and through the transition to motherhood to a second interview approximately one

year after the first one.

The present study is phenomenological in that it is concerned with each individual participant's particular account of her reality (as opposed to an objective reality) in the transition to motherhood, with the goal of describing and interpreting the transformative nature of this event for some young mothers. As such, it was crucial to incorporate methods that would enable the participant to provide her own story and relate her feelings and beliefs.

The present study also draws from grounded theory methods used, as Miles, Huberman, and Saldana (2014) propose, to analyze, sort participants into groups, and apply existing theory in novel ways to develop conclusions regarding a particular subset of parenting beliefs. Creswell (2007) notes, "Grounded theory is a good design to use when a theory is not available to explain a process. The literature may have models available, but they were developed and tested on samples and populations other than those of interest to the qualitative researcher" (p. 66). The present study, for example, employs implicit theory research and applies it to a new domain and group, namely parents and their approaches to learning parenting.

Researchers studying beliefs, motivation, and implicit theory have emphasized the need for employing rich, qualitative exploration (Kaplan, Katz, & Flum, 2012; Usher & Pajares, 2008; Schoenfeld, 1999). The steps for this type of analysis include selectively collecting data, open coding, comparing and contrasting the material in the quest for patterns or regularities, seeking out more data to support or qualify the emerging inferences, then drawing conclusions from

the cumulative set of insights in order to find ways that the meaning making and beliefs were similar with respect to beliefs about learning parenting. In practice this involves moving back and forth from single-case to cross-case analysis, creating displays and matrices for analysis, and developing a theory for similarities within and variation between groups (Miles et al., 2014).

Participant Selection

Selection for participants within the proposed study sample was based on selective, or purposive, sampling, where cases are chosen based on their significance to the area of interest (Creswell, 2007; Miles, Huberman, & Saldana, 2014). Following this sampling method, cases were selected and grouped based on two criteria: first, based on their narratives expressing a parenting mindset (that is, expressing thoughts or beliefs about how learning parenting is related to either traits or incremental progress or a combination of those, as discussed in the literature review). One of the interview questions at Time 2 was "how did you learn to be a parent?" and selection was primarily based on the existence and then topical content of participants' responses to that question. (For more about the types of questions and responses consulted in the present study, see the discussion of open coding below.)

Second, in order to study a sample of participants who started at approximately the same point in the transition to parenting, only those adolescents who were pregnant at Time 1 (and not already parenting, as is the case for some participants) were selected. This selection process in effect comprised the first round of coding as participants' narratives were first coded for parenting mindset

for selection in the study and placement in comparison groups. As a result of

these selection filters, 40 participants were selected for inclusion in the present

study. Within the group of 40 participants, age ranged from 16.56 to 21.43 years

at entry into the program. As part of the initial questionnaire, participants

reported their races, which included Hispanic (n=9), Hispanic White (n=1), non-

Hispanic Asian (n=1), Non-Hispanic Black (n=10), Non-Hispanic Multi-Race

(n=6), Non-Hispanic White (n=13).

Data Collection

Data were collected previously as part of the MHFE-2 evaluation.

Participants in the larger integrative study completed the in-person research

interviews at a location of their choice, usually the participant's home. The

research interviews included open-ended questions as well as a battery of

measures. The semi-structured interviews were conducted by a team of graduate

students who were trained by the MHFE-2 staff and included questions about the

participant's experiences from birth through adolescence. Topics included family

and peer relationships, housing arrangements, school experiences, exposure to

child maltreatment, family history, and ideas about parenting both before and

after childbirth. The interviews also asked participants to reflect on the best parts

and challenging times of parenting, their maternal strengths, and their supports

and resources. The first three research questions of the present study were

informed by coding and analyzing these interviews.

For the fourth research question related to participation in the home

visiting program, participation data for this study were collected from the PDS,

the data system used by Healthy Family Massachusetts home visitors to record

information related to their visits. The larger MHFE2 study also included other

data on program use including duration in the program (number of days enrolled),

number of groups attended, number of home visits, number of secondary

activities conducted by the home visitor, and mothers' Individual Family Service

Plan (IFSP) goals as well as information about retention in the program (Jacobs,

Easterbrooks, & Mistry, 2014). However, this study drew only from two of those

program participation variables: retention (whether or not the participant was still

enrolled in the program at Time 2 and Time 3) and the number of home visits

over roughly two years of service, up to Time 3 data collection for the MHFE-2

study.

Analytic Procedures

Validity

For this qualitative analysis, validity was assessed using Maxwell's (2013)

criteria, which included using rich data, feedback, long-term involvement, and

addressing discrepant evidence. First, the qualitative nature of the data in this

study meets the standard of "rich" data in the form of transcripts of participants'

narratives—data that are full and detailed and varied toward the aim of providing

a full contextual picture rather than a small snapshot of information that might be

taken out of context. The qualitative semi-structured interview content and

format, through interviewer probing and in the participants' in-depth responses,

richly addressed of the themes of interest to the present study. In addition, the

analysis process created additional rich data in the form of codes, memos, and

reactions. Together these data helped to protect against bias and provide a set of comprehensive information to explain, test, and justify conclusions.

Second, to combat the threat to validity of researcher bias, throughout the study I sought feedback from my committee in forming descriptions or generalizations about my data. This soliciting of feedback helped to prevent and address biases or skewed logic that might ultimately weaken the study's conclusions. Additionally, in order to test for bias, coding and conclusions for 25% of the participants' (n=10) were randomly selected, coded, and checked for reliability by two additional coders. Both coders were recently graduated university students who had experience coding and working as research assistants in child development and/or psychology research studies so they understood the basic purposes of reliability coding and the general approaches to coding content. Due to scheduling constraints, each coder participated in a one-on-one training session where the constructs of the coding were discussed, steps of the coding explained (which included completing a case-level summary and coding for implicit beliefs for each selected participant), and sample coding of passages was completed together before moving on to independent coding. Coders also first coded the same interview as their initial independent coding effort and compared results before proceeding to do their own.

After the initial round of coding, the three coders (including myself) achieved 100% reliability on the data reduction summaries, which will be described in more detail in the next section. For the implicit belief coding, we initially agreed on 24 of the 27 total possible codes, an 88% agreement rate.

Where disagreement in coding occurred, coders discussed, clarified, and came to agreement before proceeding.

Next, long-term participation is another aspect of the current study design that contributes to meeting validity standards for qualitative research. Long-term participation, including longer and repeated interviews, provides more complete data and enables researchers to check and confirm inferences. Longer interviews allow participants to move beyond initial expressions to get at the heart of a matter (Maxwell, 2013). Because the present study was based on several waves of data collection over time, that long-term participation "can help rule out spurious associations and premature theories" (Maxwell, 2013, p. 126).

Finally, the study's analytic procedure included extensive data reduction and several iterations of matrices, providing several cycles of analysis to test conclusions and identify discrepant evidence and negative cases. When they occurred, discrepant evidence and negative cases were considered and, as appropriate to Maxwell's approach (2013) to qualitative validity, reported in the results of the study. Conclusions that did not find support in the data were rejected. Therefore, validity was addressed on multiple fronts and throughout the process: in the design of the study, the coding procedures and checks, in the analysis of the data, and in the reporting of findings.

Open coding

Open coding took place during the initial readings of the research interviews of each participant. First I read through the entire interviews to get a general sense of the participant's story. On subsequent read-throughs, I focused

my attention and coding efforts on particular questions relevant to this study.

Because the semi-structured interviews consistently followed a list of questions in

the same order each time, I could predict which questions would yield salient

data. These questions were:

> Time 1 Research Interview:
>
> Tell me about your life in the year before you became pregnant.
> What was it like for you when you became pregnant?
> What were you thinking/feeling when you first found out?
> What is your idea about what is means to be a good mother? Good father?
> How has your life changed since you became pregnant?
> What kind of advice would you give to a pregnant teen who was about to
> become a mom?
>
> Time 2 Research Interview, Parenting Section*:*
>
> How has parenting been going?
> What are some challenging things about parenting?
> What are some of the best parts about being a parent?
> What do you see as your strengths as a mom?
> What does it mean to be a good mother? Father?
> How did you learn to be a mom?
> What/who influenced you?

Transcripts were coded using a qualitative data software package, Atlas.ti.

Using the software, passages of the interview transcripts were highlighted and

assigned codes related to parenting and parenting beliefs as they emerged from

the content of the responses. One exception to this iterative coding method was

the pre-existing categorical codes related to implicit belief research (i.e., coding

for fixed or incremental implicit belief statements) that were used for initial

sample selection as well as for thematic coding for the study itself. Specifically,

narratives where a mother talked about parenting (either generally or concerning

her own parenting) as trait-based were coded "fixed." Fixed statements could be

either positive or negative; for instance "I'm a natural mother" and "I'm just not patient enough" both express parenting ability in terms of fixed, trait-based attributes. Incremental- or effort-based statements of parenting beliefs were initially coded as "incremental." These incremental-based narratives included statements about parenting as a learning experience, the role of effort in parenting well, and other growth-oriented statements. Later the implicit belief coding was adapted and tried using other categories in subsequent phases of analysis, described in the next chapter.

Data Condensing and Pattern Coding

In order to explore each participant's personal context of parenting beliefs and meaning making, I condensed the information using Miles, Huberman, and Saldana's (2014) single-case matrix analysis for data reduction. These summaries both condensed the salient responses that were scattered throughout two research interview transcripts into one document for each participant while also allowing for disaggregation of the core themes of parenting beliefs and meaning making. In addition, having each case summarized in this way allowed for within-case analysis to explore potential relationships between the themes.

Thematic and Comparative Analysis

Next, in keeping with the person-centered exploratory approach, I moved to integrative or cross-case analysis, conducting comparative pattern analysis of the summaries to explore patterns between and among cases depending on the analytic exigencies of the individual research questions. Integrative analysis, in the Miles & Huberman (2014) approach, involves generating explanations and

insights that reflect the emerging patterns. The coding, thematic, and comparative

analysis phases are discussed in detail in the following chapter.

Chapter 4: Results

The present study primarily follows a case-oriented, as opposed to a variable-oriented, approach. A case-oriented approach considers the case as an entity, looking at patterns and associations within the case and only then moving to comparative analysis of a usually limited number of cases (Ragin, 1987). Ragin notes that while variable-oriented analysis has its strengths, case-oriented analysis is preferable for capturing nuance and complexity as well as finding specific, concrete patterns in smaller sets of cases.

I began the data condensing/coding phase of the methodology for this study by going through the coded research interview transcript for each selected participant in the sample (n=40). In this process I created a single-case data summary for each case, summarizing the participant's background and paying particular attention to responses on the themes of parenting beliefs, meaning making and change brought on from pregnancy or parenthood, and any other reflections about the transition to parenthood. I included salient quotations as much as possible in order to retain the participant's own words and thinking in the process of data reduction.

These summaries, or profiles, then became the basis for noting within-case patterns and for comparison between cases in subsequent analysis. Based on the interview questions and the participants' responses to them, the summaries contained the following constructs or topics: (1) life before pregnancy in general, (2) valence of pregnancy, (3) life change, (4) advice to other adolescent parents, (5) learning parenting, (6) impact of parenting on self, (7) parenting perspectives

(what makes a good mother/father and examples of good parents), (8) parenting experience, and (9) maternal strengths. An example of a single-case summary created for this study is included as Table 1.

Once the profiles were created for all selected cases, I began analyzing them in order to identify within-case patterns and then proceeded to create cross-case matrices to explore between case patterns, maintaining a case-oriented, person-centered approach throughout. Miles, Huberman, and Saldana (2014) call this strategy "stacking comparable cases" (p. 103). This process, while maintaining the case-centered approach, allows for a standard set of variables through which to view and analyze each case in depth. After each case is understood, the cases are stacked in a "meta-matrix" designed to assemble data into a format to allow within- and between-case analysis (Miles, Huberman, & Saldana, 2014).

I created separate matrices for each of the research questions since they each involved distinct criteria and themes: beliefs about parenting, meaning making about the advent of and transition to parenthood, implicit beliefs about learning parenting, and the intersection of implicit beliefs and program participation. The rest of the chapter will address the results for each of those research questions before exploring ways to integrate the findings with existing research.

What Parenting Beliefs do Adolescent Mothers Express in the Transition to Parenthood?

In exploring parenting beliefs, I first examined the exhaustive range of responses expressed in the transition to parenthood to get a sense of both the

diversity, prevalence, and distribution of beliefs as a preparation for cross-case

analysis. The relevant interview questions addressed the key beliefs about what

makes a good mother, a good father, and what the participant believed to be her

own maternal strengths.

Aggregate findings

      I performed a content analysis of the responses, totaled them, and created

displays based on the time point and question. While this may seem a more

quantitative initial approach, Miles, Huberman, and Saldana (2014) note that

counting and creating distributions can be appropriately used in qualitative

research in order to get an early sense of the data in order to see overall trends,

explore new themes, and note unexpected patterns (p. 283) to guide subsequent

qualitative analysis and direction.

      Overall beliefs. Table 2 demonstrates the exhaustive list of aspects of

good parenting expressed by all 40 participants in the present study, with columns

indicating which question the response addressed (good mother, good father, or

own maternal strengths) and whether it occurred in Time 1 or Time 2. In all,

participants mentioned 58 different aspects in addressing their beliefs about good

parenting, ranging from general ("being there") to specific ("feeding"), child-

related (e.g., a good mother's children turn out well) to mother-related ("makes

good decisions"), and actions ("playing with him") to traits (e.g., active,

responsible, smart, loving, playful, forgiving, etc.).

      Overall the top responses expressed were being there (n= 44 times), care

tasks (n=38), love (n=27), providing/supporting (n=25) and many different

personal qualities, collapsed into a single trait category (n=53). The top two

results, being there and trait-based responses, highlight potential insights about

parenting beliefs with this particular population.

   Being there. The most frequent response to the question of what makes a

good parent was "being there." What exactly does *being there* mean? While this

cryptic phrase was extraordinarily prevalent in the responses, a closer look reveals

some nuance to the answer. In some cases, it means being there physically. For

instance, one participant talks about how her decision to stay home with her

infant, "Just me being here established this huge relationship between us, which is

a good start for her life" (Participant [P] 1439, Time 2). "I think just being there

all the time, like if he would need me, and being able to play with him I think is a

big thing, not just having him sit by himself in his crib" (P1171, T2).

   This interpretation of *being there* is especially true when the participants

are talking about fathers:

   A father, as I picture, is someone that's always going to be there for that

   child. Not in and out of their lives like most fathers are. That's what I want

   for my child, but I don't know if that will happen. (P1016, T1)

While *being there* was discussed equally often when discussing good mothers and

good fathers, being there as physical presence was overwhelmingly the way

participants discussed good fathers. Eleven of the 15 mentions of *being there*

believed "being there" physically now and then was enough to be considered a

good parent, as did this participant: "as long as the father is there, sees the child

every once in a while, has someone to call daddy…that is a good father to me"

(P1233).

For many participants, *being there* means more than just physical presence; it extends to being emotionally present and available. Whereas the physical presence aspect was important for fathers, this emotional presence aspect was overwhelming true when participants described good mothers. "I'd say not only being there for your child's basic needs but just to try to be there for them emotionally. Make sure they are healthy. Make sure that they are happy. Make sure that they have everything that they need and to be really connected with them. Really have a relationship with them" (P1341, T1).

Being there also implies a sense of attentive presence and quality of care for some participants. "I think a good mother is there for her kids. They see a lot of the stuff, they see all of the stages that they go through and all the growing that they do. They make sure their baby's healthy. That's being a good mother" (P1261, T2). One pregnant participant put it this way:

> To be there for your child [is] to support them in what they want to do, to
> be able to give them everything they need, get an education…like right
> now, I read books because they can hear right now. I read Spanish books
> to him, I read English books to him. And even when I'm reading my book
> right there, my South Africa book, and I'm reading Othello, I read out
> loud so the baby can hear [in utero]. So I believe it's just about being a
> good parent, supporting your baby and making sure he stays and he's
> getting a good education and he's going to be something in life" (P1413,
> T1).

For several participants, *being there* also conveys a sense of consistency and constancy. In talking about her own mother as an example of a good mother, one participant noted that "she was always there when one of us needed her no matter what. If that meant leave from work early, just because you were having a cough or whatever, or getting anything you wanted somehow she will find a way just to give it to you" (P1013, T1).

This responsiveness to needs came through in several other expressions of *being there*. "[Being a good mother is] being there for them when they need you." (P1367, T2). "Just being there, when they need them there. Making sure they don't mess up like you did if you have any bad areas." (P1151, T1). This may also take the form of perceived availability and openness to child's needs, as expressed in this exchange between an interviewer and a participant:

I: And when you said to be there, what does that mean to you?

1402: I don't know, when she gets older I guess. Just know that she can come to me.

I: Okay, so being available to her, that kind of thing?

1402: Yeah (T1).

Being there as an expression of responsiveness to needs also emerges in the context of talking about good fathers, too:

I always tell him, the baby's father. I always tell him that if he was a really good father, he'll be there for us when we need him. If one day the baby girl needs him, hopefully he's there for her. And not just him paying attention to [his ex-girlfriend]. Right now he's mostly paying attention to

her than us and I always tell him that he should change that" (P1193, T1).

At times, *being there* as an element of good parenting seems to arise from the participant's own unmet needs as a daughter, a sense of wanting to give her baby what she didn't get, beginning with the first step of her or the baby's father's presence in the child's life:

> A good father, since I don't have a father, I think I can pretty much tell you this. A good father will always be there not just only the mother; it has to be 100% for your kid. Because that's why all these kids are here are the way they are and I know that because I have friends who bounced off…and I asked them why they did it, they always tell me because they have drama in the house…because their parents or father left or they don't know their father…because once the father leaves and leaves the child, the mother is the only one who's taking care and is trying to be two roles, as the mother and the father. It's more difficult because they need their father, too. They need both" (P1152, T1).

In addition to expressing what she didn't have, *being there* can also represent a desire for a participant to reciprocate to her own child what she appreciated about her own mother. "Probably following what my mom did…not having a kid who's running around the house going crazy and just always being there when they need it" (P1171, T1).

Trait-based beliefs. Collectively participants also frequently mentioned specific personal qualities or traits as indicators of good parenting, including being patient, supportive, softhearted, understanding, nurturing, organized, loving,

playful, and many more (see Table 2). The emphasis on traits and qualities may indicate a particular mindset or leaning towards belief in parenting capacity as a fixed entity. This possibility will be further addressed in later sections of the present study, namely those relating to implicit beliefs, or meta-parenting mindset.

Pregnant participants' beliefs about good mothers. Next I ranked the top responses for each question, creating a separate matrix for each and indicating which responses were unique to that particular question and/or time. Noting these rankings and unique beliefs provided a window into the priorities and experiences of the participants as they transitioned from pregnancy to parenting.

As Table 3 indicates, for pregnant participants (Time 1), their top responses for what makes a good mother included being there (n=14), personality traits (n=14), providing support (n=12), and care tasks such as feeding, changing, and clothing (n=11). There were six responses that only showed up in the Time 1 question about good mothers. At this point, participants were pregnant (but not parenting) and these unique responses highlight what is uniquely on their minds at this stage. Participants mentioned the following beliefs only at Time 1, saying a good mother:

- Sacrifices
- Has kids who turn out well (proof of good mothering in the outcome)
- Worries about them
- Helps kids be the best they can
- Knows the right way of doing things
- Lets them make mistakes

Pregnant participants' beliefs about good fathers. Table 4 indicates the pregnant participants' responses about what makes a good father. The top

responses were being there (n=16), providing/supporting (n=10), same as a good

mother (n=10), and traits (n=7; this included different qualities). The responses

given only in response to this question were that good fathers:

- Do the same activities as good mothers
- Put in equal effort to mothers
- Respect their partner
- Have jobs
- Take child on outings
- Do their own thing

Parenting participants' beliefs about good mothers. At Time 2,

participants had given birth to their babies and were now engaged in parenting.

The top responses (see Table 5) about what makes a good mother at this point

were care tasks (n=13), being there (n=10), traits (n=10), and love (n=7). The

responses that were unique to this question and time point reflected their

immersion in the actual act of parenting, indicating that a good mother:

- Treats [the baby] right
- Can take the baby's perspective taking
- Makes good decisions
- Appreciates what she has
- Plays with the baby
- Asks for help
- Knows right and wrong
- Follows her child where he/she wants to go

Parenting participants' beliefs about their maternal strengths. Finally,

at Time 2 mothers were asked to reflect upon their own maternal strengths and

mention what they did well. Table 6 shows that the top responses overwhelmingly

related to traits (n=19), followed by care tasks (n=9), teaching/guidance (n=6),

and knowing/reading their child well (n=5). The responses unique to this

question on their own maternal strengths were:

- "Everything"
- Controlling anger
- Keeping up with everything
- Sharing my time
- Comforting
- Keeping baby occupied
- Making baby laugh

Case-level findings

After exploring the aggregate overall themes for all the participants, I began analyzing case-level findings. Table 7 shows the beliefs about parenting for each participant, including her beliefs about good mothers (both time 1 and 2), good fathers, and beliefs about her own maternal strengths.

As the present study addresses the transition to motherhood and includes interviews before and after childbirth, I was particularly interested in case-level changes in beliefs over that transitional time. Analysis revealed both process patterns of change as well as emergent content themes of parenting beliefs as the participants moved from pregnancy to parenting.

Process patterns. Process patterns emerged as the types of thinking shifted for many participants as they recalibrated their beliefs within the reality of parenting in one or more of these ways: moving from daughter mentality to mother mentality, moving from general to specific, and adapting definitions to suit the realities of caretaking (in other words, adjusting and tailoring the definition of a good mother from an ideal to one that is applicable to her own experience). Table 8 documents these apparent changes in beliefs.

Moving from daughter mentality to mother mentality. When many of the pregnant adolescent participants responded to questions about mothering in Time

1, they seemed to be answering from their experience as an adolescent being parented by her mother rather than as a potential mother herself. Since they were not yet involved in the actual acts of parenting some participants seemed to answer as a recipient of parenting rather than someone who was engaged in parenting herself. For instance, one pregnant participant indicated that a good mother:

> "listens to their child, don't always lash out at them, everybody makes mistakes, I have made mistakes--a lot of mistakes—and everybody has to learn from them but there is a way that you could tell them this is wrong…always make sure they go to school, always help them with their schoolwork. Watch their friends…I wish my mother would've watched my friends" (P1365, Time 1).

At this point in her own development she articulates some very specific parenting aspects that align with her own experience as a daughter being parented. Based on that experience she has some ideas about how she'll treat her own child but the aspects of parenting are not necessarily connected to the future child she's carrying in utero nor the parenting that she will do when the baby arrives. Eleven months later, after having her baby and beginning the work of parenting an infant, her answer seems to switch from a daughter's to mother's perspective:

> "To be a good mother, to me it means to make sure your kid has, to make sure your kid is not in harm's way, to make sure that everything just goes as planned…It's hard to be a mom, it is. Especially when it's your first time, you're new to everything…to be a good mother means to grow up

and be smart for your kids and stuff like that" (P1365, Time 2).

This process emerged as a pattern as other mothers (n=13) in the study expressed

this same tendency, moving from a more self-centric answer, understandably

related to their current experience as a child being parented, to a response that

encompassed their growing experience as a parent.

Moving from general to specific. Some participants' answers (n=13)

moved from general to specific in the transition to motherhood. For instance, one

participant went from talking about being there, supporting, and providing

necessities (P1497, Time 1) to naming things like taking care of the family,

making sure everything is organized and clean in Time 2.

Certainly this reflects the move from an idea to a practice but this process

may not necessarily always indicate a positive development, as some of the

essential parts of parenting—love, providing, presence—*are* conceptual and

should not be lost in the pursuit of the daily, more mundane caring tasks. One

participant changed her definition of a good mother from *taking care, showing*

love, providing needs (P1395, Time 1) to *watching what the baby eats* (Time 2), a

seeming regression in beliefs about parenting. However, even in these cases, the

responses may represent new ways in which participants in fact see their love and

care and presence being expressed.

Adapting beliefs to practice. Similarly many participants' responses (n=

31) reflected an evolution of their beliefs to suit the realities of caretaking in their

particular context. For instance, one participant moves from describing a good

mother as one who has an education, is able to provide, is independent, and

prioritizes children (P1208, Time 1) to one who is patient, understanding, and can take the child's perspective to know what the child wants (Time 2). Another mother originally framed her beliefs about a good mother this way:

> Probably following what my mom did. Teaching good morals, not having strict rules but not having a kid who's running around the house going crazy and just always begin there when they need it and stuff like that (P1171, Time 1).

Once she was engaged in parenting her child, her beliefs seem to crystalize to fit her reality:

> I think just being there all the time, like if he would need me, and being able to play with him I think is a big thing, and not just having him sit by himself in his crib. Just trying to show him things and teach him things I think is big (Time 2).

This process may or may not include a move from general to specific but demonstrates a growing understanding of the requirements and aspects for being a mother to her particular child during this phase of development.

Emerging belief themes. In addition to process themes of change over the transition to parenthood, analysis also revealed several themes of beliefs emerging after the advent of motherhood. The final column in Table 8 shows the beliefs that emerged for each participant after the transition. These themes included the uniqueness of her role as a mother in knowing her child best, the emerging importance of interactions with the baby, an emphasis on consistency, and a new understanding of the prioritizing and sacrifice involved in motherhood.

These content changes in beliefs reflect insights about parenting that are especially salient and perhaps most learnable once a young mother is on the job. A pregnant adolescent may perceive that a mother is important to her child but it is only in moving into and filling the role that she understands what that means. These emerging beliefs summarize these realizations. Her unique role in understanding her child's cries and cues and the importance of interacting with her child give new meaning and prestige to the role. At the same time the prevalent and emerging beliefs about needing to be a consistent presence, prioritizing the baby's needs, and sacrificing her own wants and needs reveal the accompanying weight and responsibility that new knowledge may carry.

Measuring up to beliefs. Finally, I compared each participant's expressed beliefs about what makes a good mother with her responses regarding her own maternal strengths in order to get a sense of how she regarded her own parenting efforts and abilities at Time 2. Interestingly, all but one mother met or exceeded her own definition of what makes a good mother. Twenty-two mothers' self-reported maternal strengths met and overlapped with their beliefs about a good mother. Ten participants' strengths exceeded their beliefs, meeting their expressed ideal beliefs about good mothers and adding a few other qualities or activities that she perceived that she did particularly well on top of the others.

Seven mothers regarded themselves as not just meeting or exceeding but excelling at motherhood overall, expressing a global assessment of excellence with responses such as "I'm good at everything" (P1003), "All of it" (P1016), "I don't know what I'm *not* good at" (P1176), "I'm not a good mom, I'm a best

mom" (P1243).

One mother expressed reservations about measuring up to a "good mother" standard. At Time 2, she said, "I don't know [what a good mother is]. I haven't seen one yet…a good mother would be me times ten" (P1237). Despite expressing some sense of inadequacy, when prompted she named several maternal strengths that she had, including making sure the baby doesn't need anything, giving attention, care, support, and protection.

The self-assessments of the groups at the extremes—those who rate themselves as good at everything and the participant at the other end of the spectrum who considers herself a fraction of a good mom—raise more questions than can be resolved in the present study. While the interviews and analysis illuminated some interesting results about parent beliefs, without targeted follow up questions it is difficult to draw conclusions about the origins and explanations for these participants' beliefs about their own parenting, though it would an interesting question for future studies.

What Meaning Making Do Adolescent Mothers Engage in as They Transition to Parenthood?

Having explored what adolescent parents believe about the aspects of being a good parent, I next addressed the second research question of the present study, which considers how participants make meaning from this event in their own lives. What meaning making beliefs do they employ to explain how parenting fits into their life story? From my initial reading of the interview transcripts onward, it became clear that, for some participants, the advent of

parenthood was a precipitating event in their lives that changed their behaviors, transformed their outlooks, and altered their trajectories. Participants spoke about these changes alongside sentiments that ascribed meaning to this new, often unplanned experience of parenthood.

One of the interview questions in Time 1 asked outright "How has your life changed since you've become pregnant? Is this a big change, some change, or no change?" The responses to these questions elicited reflections on the role of the pregnancy in the participant's life. Additional reflections and meaning making about the impact of parenting emerged from responses to other questions throughout the interviews at Time 1 and Time 2. These responses were analyzed first using open coding and then subsequently included in the individual data reduction summary for each participant.

Next I created a cross-case matrix to compare cases and explore themes or patterns of meaning making about becoming a parent. As Table 9 indicates, participants largely agreed that pregnancy brings a change. Twenty-eight participants rated it as a "big change," nine say it brought "some change," and three noted that it's brought "not much" or "no change." While the change initiated by pregnancy is virtually unanimous, the type of impact varied widely. For some participants, it appeared to be mainly superficial or temporary, especially during pregnancy. Fifteen participants cited these kinds of changes, including requiring the participant to dress differently, being busier with doctors' appointments, enduring physical discomfort, or limiting activities like nightlife or sports participation.

For most participants, however, pregnancy and then parenthood elicited a deeper response as they reflected on the changes and attributed some degree of transformative meaning to the process. Content analysis generated a long list of impacts that, upon closer thematic analysis, formed three major themes or scripts of parenthood meaning making: (1) improving relationships, (2) changing life and outlook, and (3) transforming self (see Table 9).

Change in Relationships

For at least ten participants, having a baby impacted other relationships in a meaningful way. Becoming a parent brought a new dimension in particular to the relationships with their mothers, both in appreciating and respecting their perspectives but also in bringing them closer:

> I have a lot more I guess you could say respect for people. Like growing up every person thinks, you know, their parents are out to get them, all this. But then…you sit there and you're pregnant and you think about it and you're like I probably would have done the same thing because I want [my baby] to have that, too. My mom and I get along a lot better now, actually, ever since I got pregnant. She—I don't even know what it is—it just gives you a whole new outlook (P1439, Time 1).

Another participant expresses a similar insight:

> When I became pregnant…I realized what she went through with me and everything.
>
> *I: Then things changed? In what ways did they change?*
>
> They were better. We got so close. She was there. She was already a mom

of four kids, so she helped me if anything. She talks to me. She used to not

because she was scared I was too young (P1485, Time 1).

The same participant continues to reflect on this change a year later:

Before I came out pregnant, I was a wild girl…and I thought I was gonna

stay wild and something was gonna happen, but I changed totally, the way

of me thinking. You know, I was so bad with my mom, [but] after my son

was born, I was so closer to her. It changed a lot (P1485, Time 2).

This impact on relationships extends to other family members or even the

family system as a whole; one participant (1485) said the birth of her child was a

"turning point for the whole family," facilitating change with her, her parents, and

extended family. Participants also reflected on the changes in the relationship with

the baby's father brought on by new realizations and meaning making of

pregnancy and parenthood. Some participants found that the relationship with the

baby's father was strengthened. "[The best part is] just having someone that's a

part of you, that loves you back and, you know, is there for you, and the

relationship between me and her father is much stronger because of her" (P1168,

Time 2).

Other participants report more conflict with the baby's father. Some made

the decision to break up the relationship on behalf of the baby's future: "I know

that being with the father wasn't the best thing for me and what I needed

especially with the baby…so that's why I kind of cut things short with him"

(P1176, Time 1). In this way, making meaning of new parenthood seems to

clarify relationships and catalyze change for some adolescent mothers.

Change in Life and Outlook

For many participants (n=20) the transition to parenthood seemed to be a catalyzing event for changing their life trajectories and outlooks. Beyond the evident life changes common to every new mother—the physical changes, experience of childbirth, new responsibilities—these mothers credited motherhood not just as something that had happened to them but as a crucial turning point in changing the course of their lives. Through the meaning making they engaged in regarding their emerging parenthood they reported that they had a sense of purpose and could "see a straight path to where I'm going" (P1413). They expressed a change in life priorities, new motivation to aim higher both to provide materially for their children and to be an example to them. These participants credited their improved outlook on life to the new meaning they drew from this unexpected event in their lives and their new roles as mothers to their children.

Change in Self

The most frequently mentioned meaningful change (n=34) initiated in the transition to motherhood was the personal growth they had pursued in being a better and stronger person. This sentiment was repeated by many participants throughout the interviews: "[motherhood] made me who I am" (P1347), "parenting made me a better person" (P1152), "I want to be the right mom" (P1485). Participants articulated the personal changes in qualities such as happiness, strength, patience, responsibility, maturity, and independence as well as mentioning a sense of competence in becoming a good parent.

These three areas of meaning making from parenthood—change in relationships, change in outlook and trajectory, and change in self—broadly echo the findings on meaning making previously mentioned in an earlier chapter of this study, specifically the research on Transition Theory and Posttraumatic Growth. This alignment with existing research will be explored further in the next chapter.

While most participants' responses indicated they were engaged in one or more of the areas of meaning making and change in the transition to parenthood, certain participants seem to be especially engaged in it. This group, the "Transformers," was the focus of the next step in analysis of meaning making.

High Meaning Makers: Transformers

Five participants stood out as particularly changed by their transition to motherhood; see Table 11 for a summary of their meaning making scripts and additional details about their life before and after pregnancy. Transformers reported both a breadth and depth of change that sets them apart from the rest: they included all three categories of scripts in their meaning making and expressed a narrative of deep, transformative change.

Room to grow. In exploring what exactly contributed to such a transformative change, there are a few possibilities. First, these participants had room to grow and transform personally from their pre-pregnancy existence to post-parenthood. They not only described the change brought by parenthood as "big" but some use other superlatives, such as "drastic" or "extremely big." Most of the transformers described their history leading up to pregnancy as troubled, including rocky relationships with parents and boyfriends, family members jailed,

running away from home, anxiety, gang involvement, abuse, and sexually transmitted disease. It makes sense that some of the participants who started with a troubling set of circumstances and much to gain demonstrated and reflected on significant growth and declared "my life changed when I got pregnant" (P1013).

Agency and effort. Still, not all of the study participants who expressed a troubled past were able to experience this level of transformation that the transformers exhibit. In addition to demonstrating a magnitude of potential change and growth, high-transforming participants' responses reflected a sense of agency and effort. When the interviewer asked, "What advice would you give another teen mom?" one participant responded, "Pay your consequences and make the best of it. Don't take it out on your kids. Try hard. It will change your life" (P1485). Another Transformer (P1487) said simply "We can do this," adding later "You're not born to be a mom, you just have to learn to be a mom and grow, step by step. Just like they grow, you have to grow with them."

In addition to effort, the Transformer participants indicated that transformative growth was a decision they made and an opportunity they took. One participant articulated this when she noted that her child gave her the excuse she needed to separate herself from negative influences in her previous, pre-parenting life. Another underscored that sense of agency when she said, "I changed it because I didn't want to be like that [anymore]. I want to be the right mom" (P1485).

Program activity. While the results about program retention will be covered in a subsequent section of this chapter, it's important to note here that

high-transforming participants were also active and consistent participants in the home visiting program intervention. Of the five Transformers, four were still actively receiving home visiting at Time 3 and the one who was no longer enrolled had to withdraw because she moved away. Though it's unclear at this stage exactly how the two relate, accessing home visiting services and engaging in transformative meaning making coincide in the lives of these participants.

Low Meaning Makers: Remainers

On the other end of the spectrum, some participants engaged in very little meaning making about the transition to parenthood. Analysis of this group, called the "Remainers" in this study, provided some interesting findings. Though they each described different levels of change to their lives at pregnancy (no change, some change, and big change) when it came to describing the transition to parenthood, the three Remainers in the sample didn't express transformation scripts in any of the three categories (relationship change, life change, self change). Though the group sample is low, some insights emerged in their responses, summarized in Table 12.

Globally fine. For these participants, the lack of meaning making ascribed to new parenthood may reflect a lack of perceived change in personal circumstances. One participant (1215) was married to the baby's father and had been trying to get pregnant and was happy about the pregnancy. She described a fairly ideal situation: pregnancy brought "no change," parenting "came naturally" and was going great for her.

The other Remainers echoed this global "all is well" description. They

said parenting was going well: one had a happy baby who doesn't cry (P1208)

and the other emphasized that she's not just a good mom but a best mom (P1243).

There are several possible explanations for this sentiment. The global sense of

everything being fine may reflect the truth of their situations. Or it could be

related to a limited ability or comfort level with self-reflection. Or perhaps these

participants masked or denied the big changes, either consciously or not. Or it

may reflect the flip side of the "room to grow" theme evident in the high meaning

making participants. Perhaps the participants didn't feel the transition to

parenthood was meaningfully transformative because in their experience

everything felt equally fine over time.

Program participation. While all but one of the Transformers remained

in the Healthy Families Massachusetts home visiting intervention (as discussed

above), none of the three participants with the lowest demonstration of meaning

making remained enrolled. They all dropped out of the intervention early, two in

the first year and one in the second. While the program participation aspect of the

present study will be covered later in this chapter and in the discussion section,

this common theme for the Remainer group bears mention here. Within the low

meaning making group, they varied in their reasons for their attrition: one

dropped out because she saw the program as "irrelevant" to her, one moved away,

and one participant simply vanished from contact with her home visitor and the

Healthy Families program.

What do Adolescent Mothers Believe about Learning to Become a Parent?

After considering the participants' beliefs about good parenting and the

ways in which they make meaning from this transition to new parenthood in their

own lives, I examined their beliefs about learning to become a parent. I drew

from literature on implicit beliefs within the larger area of attribution and learning

theory to apply mindset research in a novel way: to parents and their beliefs about

learning the domain of parenting.

I approached the exploration and analysis of participants' implicit beliefs

through qualitative content analysis. As with the other research questions

previously discussed, I initially conducted open coding to iteratively explore what

themes emerged from the participants' responses before moving to between-case

matrices and theme analysis. Highlighted passages and quotations then informed

the section on learning parenting in the data reduction tables for each participant.

From these passages, I began to note common themes emerging: being a natural

or instinctual parent, learning by being taught by others, and learning by

experience. Eventually those two learning groups merged together once I

determined that, for the present study, the belief in acquiring incremental

parenting knowledge and skill was of primary interest, not the particulars of the

source of that learning. Therefore, after that iterative process, I concluded that the

learning themes of fixed and incremental beliefs were salient to the participants'

experiences.

Fixed Mindset

Table 13 outlines a case-level description of a participant's mindset

category (fixed, incremental, or mixed) and also provides summary statements

and quotations to illustrate each participant's implicit belief responses. Statements

coded as *fixed mindset* indicated a belief in being a "natural," instinctual parent.

Because the question was phrased "How did you learn to be a parent?" the

participants who answered with fixed mindset statements were resisting the

inherent bias in the phrasing, contradicting the question with statements like "I

didn't learn it, it just happened" (P1003), "I didn't learn, it just came" (P1016).

To some participants this fixed nature of parenting ability was a particular talent

or inherent skill specific to individuals. For example, one participant (P1395)

noted "for some people it just comes natural; for others, they've got to learn the

hard way." Another similarly posited, "I have a lot of instincts, really good

instincts about parenting…just the type of person I am helps" (1436).

Alternatively, some participants seemed to believe that parenting itself comes

naturally to every mom: "every woman is patient when they have a child…I mean

it comes natural…when the baby's born, it comes naturally" (P1507).

Incremental Mindset

  Incremental mindset statements spoke about learning, effort, and a process

of becoming better. Participants described gradually acquiring parenting skills

through both explicit teaching from others (their mothers, Healthy Families home

visitors, doctors, relatives) and through their own efforts, including previous

experience with children, seeking out information online or on TV, and an

iterative, transactional learning process with their babies. Speaking of the latter

process, one participant said, "I basically learned by myself 'cause I'm kind of

still learning 'cause we're both still learning, so I learn from her and she learns

from me" (P1423). Other participants talked about learning by doing, following

the baby's lead and other similarly interactional, incremental sentiments.

Mixed Mindset

During open coding and case-level summarizing, it became clear that individual participants did not always consistently stay within one implicit belief category during their interviews. While some were clearly one or the other, many participants articulated beliefs in incremental learning while also firmly stating that it came naturally or instinctually. Therefore, in addition to a fixed mindset group and incremental mindset group, a third category of mixed mindset emerged. Quihuis, Bempechat, Jimenez, and Boulay (2002) reached similar conclusions in their mixed methods research of high school students' implicit beliefs about intelligence, also adding a "mixed" category of implicit beliefs.

Mixed mindset participants included both fixed and incremental implicit belief statements about parenting in their interviews. Some participants seemed to articulate a belief in a mix of incremental and fixed elements to learning parenting:

- "How did I learn? Probably from watching other people and partly it just comes natural" (P1187).
- "I don't know, I guess it just kinda came naturally. But it probably helped that I have three younger siblings and my mom used to run a daycare" (P1439).

For some participants the mix of beliefs seemed to depend on the mix of skills they considered to be part of learning to parent. To them, some aspects of parenting came naturally, while more discrete *tasks* of parenting (feeding,

bathing, dressing, etc.) were taught and learned. Other mixed mindset participants seemed potentially more contradictory. One participant stated categorically "[It's] my own instincts, I have to say. I haven't really learned from anybody, not even my own mom, so it was all instinct…And daycare. I work at daycare" (P1294). In cases like this, the participant was included with the mixed theorists because, despite her certainty that it was all instinct and she didn't learn from anyone, she still adds an element of effort and incremental learning that prevents her from being classified in the present study as solely a fixed theorist. This means that several of the mixed theorists lean heavily toward being fixed theorists with a little incremental mindset thrown into the mix.

I explored different ways of sorting the implicit beliefs into subgroups, including differentiating between whether they learned from others or themselves, but these distinctions did not prove to reveal significant differences between them. In addition, partitioning the mindset groups into smaller configurations resulted in group sizes that were too small to draw meaningful conclusions.

Overall, there were 8 (20%) fixed theorists, 15 (37.5%) incremental theorists, and 17 (42.5%) mixed theorists, with the latter comprising the slightly largest group. Table 14 shows the distribution of the three implicit belief categories across the participant sample.

How Do Participants' Implicit Beliefs about Parenting Align with their

Participation in a Home Visiting Intervention?

After learning that the study participants did express particular implicit beliefs about parenting, I explored how those beliefs might align with their

participation in the home visiting intervention in which they were enrolled. While

participation in interventions is defined in many ways including the quality of

their engagement, the dosage or number of visits they receive, their

retention/attrition rates in the program, and the longevity of their enrollment, the

current study examined participation in two ways: retention/attrition of enrollment

and number of home visits. As mentioned in the Methods section, these data were

drawn from the PDS, which is the data system that HFM home visitors use to

record information about their visits.

Table 15 outlines case-level information regarding mindset, program use,

and enrollment in the program, noting if a participant stopped participating

because she moved out of the area. After completing this within- and between-

case comparison matrix, I used it to explore whether any patterns of participation

emerged within the groups of fixed, incremental, or mixed theorists.

Retention and Implicit Beliefs

For the attrition variable, the data indicated whether the participant was

still enrolled in the program at Time 2 and Time 3, usually noting the reason for

attrition if the participants were no longer enrolled. Because I had access to

information about attrition both in the first year of the program (which is the time

frame for the present study) as well as in the second year, I included both of those

attrition data points in my analysis (see Table 16), creating separate columns in

the matrix for clarity. The overall retention rate for this study sample over two

years was 14/40, or 35%. Fixed theorists demonstrated a significantly lower

retention rate of 12.5% after two years. Incremental theorists had a higher

retention rate of 47% and mixed mindset participants had a 35% rate, equal to the

retention rate overall.

As I sought to examine retention/attrition as a function of beliefs, in the

next analysis I tried eliminating cases where dropping out was most likely beyond

the control of the participant and, therefore, arguably unrelated to their

satisfaction with the program. Of the 40 participants in the present study, five

withdrew from the intervention because they moved away. Table 17 displays

retention and attrition for the participants after eliminating those who withdrew

because they moved out of the area. In this revised data set, overall retention

correspondingly rose to 42%. Participants with fixed mindsets still had a much

lower retention rate of 14%—roughly the same rate as the previous data set.

Interestingly, after excluding those who moved away, both incremental theorists

and mixed theorists had a 50% retention rate.

Program Utilization and Implicit Beliefs

After finding that fixed theorists have a much lower retention rate than the

overall rate or any other category, I examined the program use patterns related to

program utilization. Program utilization was measured in this study in terms of

the number of received home visits. The number of visits for this sample ranged

from 0 to 99. From these data, I defined three levels of home visits received by

participants. Home visit use was defined as *low* if the participant received less

than 11 visits total, *moderate* if the participant received between 11-35 visits, and

high if the participant received over 36 visits. Table 18 outlines these findings.

Fixed mindset. Of the fixed mindset group, three (37.5%) participants

received a low number of visits, three (37.5%) showed moderate use, and two (25%) engaged in high home visit use. Relatedly, the concentration of fixed mindset participants in the groups decreases as the program use in the category increases. Fixed theorists make up 38% of the low use group, 23% of the moderate, and 11% of the high use.

Remarkably, participants who have some element of fixed mindset in their implicit beliefs (classified in either the Fixed group or the Mixed group) make up almost the entire low use group overall. When looking at the low use group, seven of the eight study participants (see the *Low Use* column on Table 18) include a fixed mindset in her implicit beliefs, either as a fixed or mixed theorist.

Incremental mindset. Of those who expressed an incremental mindset, just one (6.6%) had low program use, four (26.6%) demonstrated moderate use, and ten (66.6%), were in the high home visit category (see Table 18).

When looking at incremental theorists as a percentage of each program use group, incremental theorists made up more of the group as program use n the category increased, from 6.6% of the low use group to 66.6% of the high home visit use group. These findings indicate that, for these participants, an incremental mindset—one that emphasizes learning and effort in learning and mastering parenting—seems to align strongly with high program use. However, it is not possible to determine from the present study what precisely that alignment might mean or whether there is a direction of effects between home visit use and implicit beliefs.

Mixed mindset. The mixed mindset group's home visit use was between

that of the fixed and incremental belief groups. As Table 18 demonstrates, four

(24%) of the mixed mindset participants received a low number of visits, six

(35%) received a moderate number of visits, and seven (41%) participated in a

high number of visits. As a percentage of each home visit use category, mixed

belief participants made up a smaller ratio as program use for the category

increased, moving from making up 50% of the low use category to 46% of the

moderate and 33% of the high home visit group.

In this sample of participants of the present study, the program retention

and home visit use appear to be strongly aligned with implicit beliefs. While it is

not possible, given the present study design, to speculate on the direction of

influence between beliefs and participation (if any), the following section further

discusses the results and proposes some possible explanations and future

directions for research on the alignment between beliefs and program

participation.

Chapter 5: Discussion

To summarize, the findings of this study indicate that adolescent parents display a range of parenting beliefs that develop and crystalize over the transition from pregnancy to parenthood, both in the ways they think about and approach parenting and in the content of their beliefs. Young mothers use these beliefs in making meaning from parenting and parenthood as they try to make sense of this new role in the context of their lives.

Impactful meaning making about parenthood emerged in three areas for this sample of adolescent mothers, who saw parenthood as affecting (1) their relationships with others (2) their life trajectories and meaning, and (3) qualities and positive change in themselves. While most participants engaged in some meaning making, at the extremes of the construct two groups emerged: a group of six Transformers who displayed high meaning making and transformation in their transition to parenthood and a group of three Remainers who engaged in very little meaning making and experienced little change. Those who engaged in high meaning making also tended to remain active in the Healthy Families Home Visiting program; those who engaged in very little meaning making did not remain active but ended their enrollment early.

The findings of this study also establish the existence of parents' implicit beliefs about parenting, or *meta-parenting mindset*. Participants expressed beliefs about learning and mastering parenting as a domain of knowledge. They expressed two kinds of implicit beliefs, fixed and incremental. Fixed beliefs included notions of being a natural parent or having instincts that gave them the

ability to know how to parent. Incremental beliefs included expressions of effort, teaching, and learning in order to grow incrementally better at parenting. Depending on the combination of their expressed implicit beliefs, or mindsets, participants were grouped as having fixed mindsets, incremental mindsets, or mixed mindsets.

Finally, this study revealed an alignment of meta-parenting mindset and program. Fixed mindset participants dropped out of the program at a much higher rate of attrition than those with incremental or mixed mindsets. Having some fixed implicit beliefs about parenting (either classified as fixed or mixed mindset participants) also accounted for a high percentage of the low use participants who received less than 11 home visits over a two-year period. Correspondingly, incremental mindset participants made up a large portion of the high home visits group. While there are certainly many factors that contribute to retention and program use of a home visiting intervention with adolescent mothers, the alignment of implicit beliefs and program use in this study makes a compelling case for exploring meta-parenting mindset more fully.

This study has therefore made several important contributions to three bodies of literature: research on adolescent mothers in the transition to parenthood, implicit belief research, and home visiting interventions. In the process, the study brings together traditionally separate strands of research, cross pollinating theory and findings from fields that generally do not interact much, including nursing, social psychology, clinical interventions, developmental psychology, parenting, learning theory, and others. This interaction across

normally siloed areas of research is an additional, less obvious contribution of the study.

Contributions to Literature about Adolescents in the Transition to Parenthood

The results of this study contributed to and build on the extant body of literature on adolescent mothers in the transition to parenthood in several ways. First, it contributed additional insights about the development of parenting beliefs across the transition to young parenthood. Second, this study used rich qualitative data to illuminate instances of transformative meaning making that some adolescent mothers engage in as they enter parenthood. Finally, this study found support for proposed categories of growth in viewing meaning making among adolescent mothers through the existing theoretical frameworks and literature.

Development of Parenting Beliefs in Adolescent Mothers

Building on the literature on parent beliefs in attachment, cognition, and parenting research, this study explored and articulated parenting beliefs of adolescent mothers as they move from pregnancy to parenthood. While most research on this adolescent population focuses on the effects of maternal beliefs on children's outcomes (for example, Benasich & Brooks-Gunn, 1996; Fry, 1985; Morinis, Carson, & Quigley, 2013; Luster & Rhoades, 1989), the present study contributes by illuminating beliefs and their influence in the contexts of the participants' own lives—how those beliefs affect their life narratives, trajectories, and the process of making sense of parenting at a stage considered off-time for parenthood. This approach considers the advent of parenting as a developmental

event in the lifespan development of the young mother.

      The results of this study also contribute to the research on the transition to parenthood by examining how parenting beliefs evolve over time, from pregnancy to parenting. The idea that parenting beliefs are not stagnant, but are changing over time in response to specific experiences and interactions, has been suggested by other researchers, including those who study parent attachment (Bretherton et al., 1989/2006) and the working model of the child (Zeanah & Anders, 1987; Benoit, Parker, & Zeanah, 1997a). The current study supports the proposition that parental beliefs change and refine as an adolescent mother begins interacting with her own child. The results add to the body of research by identifying specific patterns of change for this population, including transitioning from employing parenting beliefs based on the perspective of an adolescent daughter to those of a mother engaged in parenting, moving from general to specific, and attuning beliefs to her particular child and environment. The present study's design and sample of adolescent mothers participating in an evaluation of Healthy Families Massachusetts were a good fit for this exploration of change in beliefs. Its longitudinal, qualitative design allowed for a rich mining of responses and the opportunity for exploring within-case changes over time.

      These changes over time also align with and support research on adolescent development. In particular, Erikson's (1980) psychosocial theory of development places adolescents in the fidelity stage (ages 12-18, with the accompanying crisis of ego identity vs. role confusion) and young adults in the love stage (ages 18-40, with the task of intimacy vs. isolation). Early parenthood

may be a precipitating event in their lives, adding urgency to the resolution of

these developmental tasks (Raeff, 1994). The present study's results about the

changing nature of participant's ways of thinking about parenting (e.g., moving

from thinking as a daughter to thinking as a mother) support the notion that young

mothers may use their new roles to accelerate the developmental task of ego

identity and precipitate progression into the next stage.

The study's results on meaning making further demonstrate this shift from

one stage to another; the quality of meaning making seems to relate to the

resolution of this developmental task. The adolescents who are able to make

meaning from this "off time" event in their lives demonstrate a better transition to

the role and, correspondingly, a better resolution to ego identity/role confusion

stage. Perhaps making meaning from and embracing the new identity as a mother

helps some young mothers to resolve this developmental task. On the other hand,

those who are less able to make meaning or note areas of impactful change in

their lives (i.e., the Remainers) are resistant to this task.

Exploring "being there." While the participants' beliefs generally

transformed over time, one aspect was highly prevalent across both time periods

and in several contexts of parenting beliefs. *Being there* was one of the most

frequently cited aspects of participants' beliefs about good parenting. Although

prevalence of the expression *being there* as a reported feature of good parenting

has been noted by other researchers (for research on being there in research on

fathers, see Brannen & Nilsen, 2006; Barclay & Lupton, 1999; White, 1994; for

being there and mothers, see Rolfe, 2008; Boyd, 2002; Sawyer, 1999; Barclay,

Everitt, Rogan, Schmied & Wyllie, 1997), the results of this study extended the research by exploring the various meanings and interpretations "being there" can hold. Nuanced meanings revealed by this study included physical presence, emotional availability, quality of care and attention, consistency, and responsiveness. In addition, to my knowledge this is the only study to explore adolescent mothers' beliefs about *being there* with respect to both mothers and fathers.

Transformative Meaning Making in the Transition to Young Parenthood

In examining how adolescents make meaning from early parenthood, this study drew in part from research in nursing (Transitions Theory) and clinical psychology (posttraumatic growth or PTG) and explored whether the insights and frameworks of those approaches applied to the transition to parenthood for adolescent mothers.

Support for Transitions Theory. The study supported the novel application of Transitions Theory framework (Meleis et al., 2000) to this sample within the two specific sub-areas of the theory that the study addressed: (1) meaning making and beliefs and (2) patterns of response. In agreement with the theory, participants' meaning making and beliefs seemed to facilitate their transitions to parenthood, which in turn influenced the participants' patterns of change. The themes that emerged from the analysis in this study varied slightly from the patterns of response proposed in Transitions Theory but the essence of the process indicators remain the same: personal change, change in outlook, and change in relationships.

Support for posttraumatic growth in adolescent mothers. The study also confirmed the potential for posttraumatic growth with this particular sample of young mothers based on qualitative content analysis for areas of meaningful growth. Unlike the more general population of mothers who were participants in extant research literature on PTG and the transition to motherhood, this study addresses the concept with a sample of adolescent mothers who have been referred for social service support. This context may make the transition to motherhood even more of a major life event for the study's participants than mothers who are older and potentially more resourced. While PTG research (Tedeschi & Calhoun, 1996; Sawyers & Ayers, 2009/12) proposes five areas in which posttraumatic growth is manifest, the results of this study modified these slightly into three main themes. Two were the same (namely, more meaningful relationships and personal improvement) and the third theme combined two of the original PTG areas into one general sense of priority and life change. One aspect of growth that was prevalent in the research literature but did not show up in the present study was the area of expressing a richer existential and spiritual life. Perhaps it is early in the life and development of this young sample to affect that area of growth.

The alignment of meaning making and program retention. While Transitions Theory (Meleis et al., 2000) proposes a general reciprocal connection between beliefs and intervention, this study articulates a more specific link between meaning making and program retention. Participants who exhibited high meaning making ("Transformers") expressed positive change in all three areas of

growth. Virtually all of these participants remained active in the home visiting intervention after two years (just one Transformer dropped out when she moved from the area). Conversely, participants who attributed little or no meaningful change brought by the transition to parenthood ("Remainers") all left the program before the end of the first year.

This link between meaning making and program retention represents a new contribution to the literature. One possibility for this alignment is, by participating in the home visiting program for two years, young mothers are better able to make meaning from the new experience of motherhood. Perhaps aspects of the program content assist adolescents in framing new motherhood into the larger story of her life. Or perhaps the interactions with a home visitor encourage forming scripts of change and growth as the participant receives feedback and increases in confidence.

Alternatively, perhaps the young mothers who are most able and likely to make meaning from new motherhood are also those most likely to participate and remain enrolled in an intervention. Participants who see the transition to parenthood as a meaningful, transformative event may be more motivated to stay with a home visiting intervention. Though the direction of the relation (if any) between meaning making and program retention is not clear, the implications of this finding could inform new adaptations to interventions, including adopting motivational interviewing of participants to gauge and elicit themes of meaning and growth; adding regular conversations with home visitors about positive changes in relationships, self, and life outlook; and continuing to reinforce

participants' sense of competence and confidence in their roles as mothers.

Contributions to Literature about Implicit Beliefs

The results of this study also add to the growing body of research on implicit beliefs. First, it applied implicit beliefs in a novel way and demonstrated the existence of implicit beliefs about parenting (or meta-parenting mindset). Second, it confirmed implicit beliefs in a methodologically different approach, through qualitative content analysis using existing interviews. In addition, this study supported a third, "mixed" category of implicit beliefs about parenting. Finally, this study proposed an alignment between implicit beliefs and participation in an intervention designed to improve learning in the domain of parenting.

Support for Meta-Parenting Mindset

Although the link between implicit beliefs and learning has been well established in many domains of learning, parents' beliefs as learners in the domain of parenting have been overlooked until now. This study takes a step toward filling the gap in the research canon in exploring parents' implicit beliefs about parenting, or meta-parenting mindset.

The study results confirm that parents hold implicit beliefs of parenting. Through both open coding and then more structured coding for implicit beliefs, the participants' responses about their beliefs about learning parenting formed two groups: (1) thinking about parenting as something that is naturally known or gained by instinct and (2) thinking about parenting as something that is learned incrementally. These groups extend the implicit belief literature that proposes two

types of implicit beliefs: fixed or trait beliefs and growth or incremental beliefs

(Dweck & Elliot, 1983; Dweck & Leggett, 1988; Dweck et al., 1995b; Molden &

Dweck, 2006; Yeager & Dweck, 2012).

Qualitative Exploration of Implicit Beliefs

Mindset research studies have developed instruments including the

Implicit Theories of Intelligence Subscale (Dweck & Henderson, 1989; Hong,

Chiu, & Dweck, 1995) and the Effort Beliefs Subscale (Blackwell et al., 2007) for

evaluating participants' implicit theories—incremental or fixed—about a given

domain of knowledge. However, for the present study I worked with existing

interview data. Since the implicit theories subscale was not a part of the original

MHFE research protocol, it was not feasible to measure participants' developing

implicit beliefs so late after the fact.

As a result, I explored and analyzed the participants' implicit beliefs from

a different approach than mindset research studies typically do: through

qualitative analysis. Though it will be important to follow up using the

standardized instruments in future studies, this qualitative approach to mindset

analysis adds support to the body of literature on implicit belief research methods,

especially in cases where researchers seek to study these particular beliefs but

using the instruments is not feasible. This approach could be considered

complementary to standardized instruments, enabling a deeper exploration into

the implicit beliefs than the Likert ratings of the scales allow. (Where possible,

using both a validated instrument and a qualitative exploration of the data would

be ideal, as was conducted by Quihuis, Bempechat, Jimenez, and Boulay [2002]

in their study of high school students' implicit theories of intelligence.)

Support for a "Mixed" Category of Implicit Beliefs

The study findings also support the consideration of a third category of implicit belief theorist, a "mixed" mindset where the participant expresses both fixed and incremental beliefs. Other researchers (Quihuis, Bempechat, Jimenez, & Boulay, 2002) have noted that individual participants may express both fixed and incremental beliefs within the same interview or set of interviews. These mixed theorists may not emerge in the Likert scale instruments when participants are "forced" to choose one side of the implicit belief spectrum but qualitative analysis may reveal a more nuanced approach to mindset than originally conceived as it does in the present study.

The emergence and existence of this third category in this study's results may also reveal beliefs specific to parenting as a domain of learning that may be distinct from other domains. As discussed in an earlier chapter, these mixed mindset participants may consider parenting to be a recipe with both incremental and fixed belief ingredients, perhaps varying only in the relative amounts between the two.

In fact, decades of research support this combined belief view. For example, Bowlby's (1969/1982) underpinning premise to his ethologically based approach to attachment was that mothers are particularly wired to connect and support their infants. At the same time, robust research findings emphasize the importance and effectiveness of parent education and training, either formally through interventions and programs or informally through family and kin support

and transmission of caregiving knowledge (Chaffin et al., 2009; Gomby et al., 1999; Krysik et al., 2008; Olds et al., 2002; Tandon et al., 2005). This study is not concerned with determining whether parenting comes naturally or through learning, however, but rather focuses on the importance of what the participant *believes* about the roots of mastering parenting. Since participants may or may not be aware of the parenting research canon, it is perhaps just as salient to participants that even outside of the research world, young mothers receive messages about the nature of acquiring parenting knowledge and mastery. People surrounding them commonly compliment new mothers by saying "you're a natural!" while also giving doses of advice and instruction on parenting and caregiving, including referring them for participation in a parenting intervention.

Alignment of Implicit Beliefs and Intervention Participation

Extant research has demonstrated that implicit beliefs influence persistence in a domain of mastery and learning (Blackwell, Dweck, & Trzesniewski, 2007; Dweck & Elliott, 1983; Dweck & Leggett, 1998). As mentioned in the literature review, fixed theorists persist less in the face of challenge, chalking up the difficulty to a lack of ability. Conversely, incremental theorists persist longer and believe effort brings growth and progress. An important finding of the present study demonstrates similar alignment between meta-parenting mindset and participation in a home visiting intervention. Given the extant research findings, I wondered whether fixed belief participants would resist an intervention that proposed to improve their parenting if they did not, in fact, believe parenting was something that could be taught.

The present study confirmed this connection: fixed theorists had significantly lower retention rates in the home visiting program (14% retention over two years compared to an overall retention rate of 42%). In addition, fixed theorists demonstrated low program dosage, or number of home visits. Participants with any fixed belief in their mindset (either fixed theorists or mixed theorists) accounted for virtually the entire low program use group.

Relatedly, incremental theorists had higher than average retention (50%) and high dosage, comprising 100% of the high program visits/secondary activities group. This finding builds on previous research and illuminates a link between beliefs and retention in a home visiting program that, to my knowledge, has not been explored before.

Notably, it is possible that some fixed theorist mothers chose not to enroll in the program when referred, either feeling that they already had parenting instincts/talents and did not need the program or that their ability to parent wouldn't be subject to change. This potential self-selection bias means that the study sample may have been already skewed toward incremental theorists. It also means that there may be a whole group of unenrolled parents that the intervention could work with in a pre-intervention program designed to address their implicit beliefs.

The study findings could have far-reaching programmatic implications on home visiting and other parenting interventions. As the literature review for the present study outlined, implicit theory intervention research in other domains demonstrates that (1) implicit beliefs are malleable and (2) addressing fixed

mindsets to open them to the possibility of growth can lead to considerable benefits in increasing capacity and mastery. The current study can similarly inform how we intervene and how we prepare parents for those interventions. By examining parents' beliefs about the nature of parenting we may unravel some of the knots of intervention, including inconsistent or inconclusive outcomes and some of the mysteries of program retention, program engagement, and behavior change.

The link between implicit beliefs and program participation—including both retention and dosage—creates potential opportunities to improve the effectiveness of these interventions. For instance, home visiting intervention programs could add a pre-intervention learning module (as Dweck and others have done with other implicit belief interventions) or conduct motivational interviews (as suggested by the work of Chaffin et al., 2009) to gauge and address a participant's meta-parenting mindset. This kind of pre-treatment may open up the possibility for growth for mothers who have a fixed meta-parenting mindset.

One category of belief—fixed, incremental, or mixed—is not inherently or necessarily "better" than others. A mother may have a fixed meta-parenting mindset because she feels capable and well suited to parenting and feels she has a genuine talent for it. Or she may frame the attachment relationship she notices between herself and her child as one that comes naturally. However, given that program retention and participation seems to be aligned with a more growth-oriented implicit belief, a program that proposes to impact through growth and change in parenting knowledge should be aware of the implicit beliefs held by its

participants—targeting the intervention to those mothers who are primed to receive it through an incremental or mixed mindset and possibly directly addressing the possibility for growth in the parenting domain to those who don't yet hold those beliefs.

Like the domains of learning that have benefited from extant implicit theory research (for instance, math knowledge and general intelligence), parenting is a domain of learning that is at risk for having an over-attribution of entity-based thinking. Parenting, and especially mothering, is often seen as coming "naturally" (or not) to a parent rather than an incrementally grown ability. This has serious implications for parents, their children, and the programs that aim to help them improve. Perhaps we have been leaping into interventions without asking the very basic question: *Do you believe your parenting abilities can change?* Once that question is answered, and if necessary, once participants are educated about their capacity for growth and change as a parent, then interventions—those incremental agents of change—can perhaps be more effective in introducing and encouraging effort, growth, and mastery. Ultimately, this may mean reaching more parents and children more effectively with longer-term effects.

Therefore my program recommendations arising from this study include:

- Include in the referral and intake process an assessment of a participant's implicit beliefs about parenting. This could be determined by an open-ended conversation about how parenting ability and mastery are obtained or through a more standardized questionnaire like the Implicit Theories of Intelligence Subscale (Dweck & Henderson, 1989; Hong, Chiu, & Dweck,

1995) and the Effort Beliefs Subscale (Blackwell et al., 2007). Continue to

assess these beliefs periodically, as beliefs may crystallize over time—

from pregnancy to parenthood through different stages of parenting.

- For fixed mindset participants, introduce the ideas for growth in the

  domain of parenting through motivational interviewing (both before

  commencing the program and throughout its delivery). These

  conversations are themselves implicit belief interventions. This study's

  findings indicate that it may be impactful on program participation if

  participants add any belief of growth to their fixed beliefs, moving toward

  a mixed mindset.

- Train home visitors in language and feedback that emphasizes not just

  traits and talent but also effort and growth. Relate narratives of growth and

  development in parenting from other mothers. Reinforce and encourage

  persistence and effort in the face of parenting challenges, framing these

  challenges as normal, expected, and surmountable.

Limitations

It is important to recognize the limits associated with any study. In the

present research, certain limits in the study's methodology or analysis merit

particular attention in the context of the overall findings. Methodologically

speaking, the use of existing interview data led to some limitations of the present

study. In some cases, interviewers did not elicit a response to a key question or

did not follow up to clarify responses. For example, the research findings on

being there as an aspect of good parenting would have benefited from a follow-up

question each time a participant used the phrase.

Relatedly, because the interviews had already been conducted I was unable to construct questions targeting my research questions or to use standardized instruments to measure implicit beliefs or posttraumatic growth, for instance. Therefore, the findings address the general idea of the constructs through qualitative analysis but are not directly translatable to the scores and values of these constructs in other studies. However, comparability aside, the fact that these constructs emerged despite the fact that the questions weren't directly asked or the tools employed to elicit them also demonstrates the robust nature of the phenomenon.

Finally, and perhaps most importantly, while alignment between beliefs and program participation was established, the direction of influence (if any) is unknown. Without more knowledge about causation, the utility of the results is limited in its translation to practice in order to improve interventions. Further research will be needed in order to further elaborate the relation between beliefs and behavior in this population.

There were a number of factors not accounted for in the study that may contribute to the meaning making or mindsets of adolescent mothers. For example, the potential origins of these implicit beliefs were not examined. These potential origins include previous experience with abuse or neglect, their parents' parenting beliefs, and the shared beliefs of a family, community, or ethnicity. Culture, experience, and other contextualizing influences on beliefs were left unexplored in this study and will be important considerations for future research.

This study's design selected the sample based on the constructs of interest (namely, beliefs about learning parenting and pregnant at Time 1) and analyzed at the case, not group, level. While it will be important to examine these group influences, culture was not left unaddressed but rather was defined at an individual level. As outlined in the section on meaning making, this study approached culture through a meaning making lens. These individual beliefs represent the shared beliefs of family, community, ethnicity, and other groups but also capture the unique blend of these influences within an individual; it will be perhaps more important for programs to understand these unique blends of beliefs within each participant than to make assumptions about individual beliefs based on the ethnic, cultural, or neighborhood groups to which the participant belongs.

The connection between beliefs and program participation may arise from (or be supplemented by) additional factors apart from but related to implicit beliefs. For example, goal orientation theory examines what motivates learners in a variety of settings (Dweck, 1986; Elliot & Dweck, 2005). *Self-validation or performance goals* seek to prove one's ability and protect against negative judgments. *Learning goals* are focused on improving one's abilities. In this framework, many researchers propose that implicit theories give rise to goal orientation which in turn influences learning behavior, with fixed beliefs leading to self-validation goals and incremental beliefs leading to learning goals (Ames, 1984; Hastings & Grusec, 1998; Kaplan & Maehr, 2007; Robins & Pals, 2002). While the participant interviews didn't address aspects of motivation, the high stakes nature of parenting—and especially parenting interventions, where home

visitors could be either viewed as teachers or audience—seems to be fertile

ground for activating either learning or self-validation goals. Some participants

may be motivated to improve parenting abilities by challenge of the endeavor as

well as a desire to give excellent care to their child. On the other hand, they may

be motivated to preserve against judgments of incompetence and threats to their

new identities as mothers by embracing self-validation goals. It's possible, for

example, that some of the "globally fine," low meaning-making participants in

this study may have been actually engaged in this kind of self-preserving

performance goal orientation.

In another example of additional factors potentially influencing

participation in an intervention, clinical research studies indicate that "readiness to

change" (McCurdy and Daro, 2001) may also affect motivation in an intervention.

Parents who feel a need to focus on parenting at a particular time—either through

a specific issue or challenge or epiphany in their lives—are more likely to engage

more fully and continue involvement (see also McAllister & Green, 2000, as cited

by Korfmacher et al., 2008). Those who exhibit a "readiness to change" may also

be more likely to continue participating in an intervention Participants in this study

may have had a motivating experience that predisposed them to readiness for

change; it would be good to investigate how implicit beliefs about parenting relate

to readiness to change. These additional strands of research give context to the

present study's findings and illuminate a way forward.

Directions for Future Research

The findings of the present study provide insights on meaning making and

implicit beliefs that can inform future research and interventions. The themes that emerged for the two groups of participants at the opposite ends of the spectrum of meaning making and transformation provided interesting insights about potentially different ways that young mothers approach the transition to parenthood. As this was an exploratory portion of the study, subsequent research could examine these common elements with larger samples and targeted interview questions and follow-up to determine the prevalence of these themes in other groups. In particular, the connection between meaning making and program retention will be an important one to explore in order for interventions to understand what, if anything, this says about the program and/or about the participants.

As discussed above, future research should address the influence of contextual factors--including culture (for instance, family, neighborhood, ethnicity), experience with abuse and neglect, socio-economic factors, and aspects of the participants' personal characteristics and experience. While this study focused on a certain kind of meaning making and beliefs at the individual level, these contextual influences are widely acknowledged in research and in the Transitions Theory framework and should be explored with this population of young mothers transitioning to parenthood.

In addition, it will be important to understand how program-related factors interact with beliefs and meaning making. For example, the relationship with a home visitor may influence either the beliefs about parenting held by the participant or the degree of commitment and satisfaction with the program. Did

some home visitors elicit participants' meaning making in particular ways? These factors were not considered in the present study and will add greatly to the overall understanding of how beliefs and participation are reinforced and related.

For many adolescents in the present study, motherhood added new meaning to their lives and provided the opportunity to positively adjust their lives. Yet this does not mean that the present study proposes that motherhood should be a panacea or prescription for any young woman seeking to change her life or find meaning within it. Since the participants in the present study expressed that motherhood filled a pre-existing desire for being important, making a difference to someone, and having a meaningful role in the world, programs serving early adolescents and young women should seek to provide rich opportunities for meaning making within their circumstances far in advance of pregnancy.

Subsequent research on meta-parenting mindset can and should explore possibilities for building pre-service interventions to identify and address the implicit beliefs young parents hold. As discussed earlier, these studies, following the work of previous implicit belief interventions, could test whether meta-parenting mindset can be influenced to improve the retention and dosage of participation in home visiting interventions.

Further research on the three categories of meta-parenting mindset—fixed, incremental, and mixed mindsets—will be essential to understanding more about this new pattern of beliefs revealed by this study. Given that implicit theory research has revealed the malleability of these beliefs and that intervention can encourage learners to adopt a more growth-oriented approach, does this same

pattern also occur in the domain of parenting? The addition of a third category of beliefs in this study presents many opportunities for further research. It may be possible that, in the parenting domain, parents tend to move toward a mixed mindset as they bring their capacities and evolutionary priming and also experience challenge and opportunities for learning and growth in their development as parents.

While some conclusions and future research questions extend directly from extant implicit belief research and seem to apply to meta-parenting mindset, parenting is also unique from other learning domains. For example, unlike other implicit belief domains—such as implicit beliefs about intelligence or math— parenthood is a domain of learning that is encountered for the first time later in life. This presents an opportunity to explore the evolution of beliefs as they develop. In addition, unlike other domains, parenting itself is a moving and evolving concept over time for each parent; as children grow, implicit parenting beliefs may also change and adapt according to the needs and changes of the children. Future research on meta-parenting mindset could explore whether similar implicit beliefs are held throughout the years of parenthood or if the beliefs change as children do.

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Table 1

Data Reduction Summary: Making Sense of parenting

Participant ID Number: 1233   Coder's initials: ABW
Instructions: After reading through relevant passages of the interview transcript, summarize the participant's experience along the following themes and constructs. Supplement with particularly salient quotations.

Pregnancy (T1 interview)
Life before pregnancy in general: Playing basketball for Regis College when she found out she was pregnant, came home but then kicked out because not enough room and pregnant (but says it wasn't a great place—cops and domestic screaming,etc.) Living in a homeless shelter now [T1]

Valence:
Shocked about pregnancy, seriously considered abortion but BF and his mom and P's parents all were happy and excited so she decided to keep the baby.

Life change:
Pregnancy big change but looking forward to it, can handle it. Become more responsible, more on top of things, more organized. "I know what I want now and before I didn't" more mature. "It made me really think that I need to get my own place"

Advice (T1):
 Don't know, can't tell someone how to be a mom. You have to know it yourself. But if in bad situation, get support.

Learning Parenting: (T2)
"Can't tell someone how to be a mom. You have to know that yourself" Learned as she went along. Not influenced by others other than noting what not to do.

Impact of parenting on self (T1 + T2)
Motivated by the fact that no one can do what she's doing for her baby; it's up to her. More responsible, independent, direction in her life. "I know what I want now and before I didn't"

Parenting beliefs (good mother, father)
(T1): good mother: Provides for child first, prioritizes, what they need. Taking time, being involved in school and with the child in general (PTA, Disneyworld, etc.). Good mom she knows: has a good child, does everything for her child, giver her experiences.
good father: not as important, mother main person. Being there and supporting

(T2):good mother: be there for your kids, let them know you're there, they can count on you. Mom's gonna take care of it.
good father: n/a

Parenting experience (T2): Parenting going great, wonderful. "Happy baby" [interviewer didn't ask about challenging parts and best parts]

Maternal strengths (T2): fun mom, make her laugh, know when to be strict. "I fit her needs" "I'm not mean to her"

Table 2

Aspects of Good Parenting:

Aspect of parenting	T1 Good mother	T1 Good father	T2 Good Mother	Maternal Strengths
	Number of participants who cited			
"Being there"	15	14	12	3
Love and care	8	5	9	5
Emotional support	6	5		
Protection/safety	5	1	7	2
Teaching/guidance	8	3	6	5
Providing/ supporting	8	8	6	3
Traits	Dependable 2 not too strict 1 selfless 1 educated 1 independent 1 responsible 1 supportive 5 trusted 1 softhearted (but in charge) 1 patient 1 understanding 1 not closed-minded 1	independent 1 helpful 1 can depend on $ 1 proud being a father 1 strong, backbone 1 strict 1 nurturing 1	Nurturing 1 Role model 1 Patient 1 Understanding 1 Everything goes as planned 1 Mature for kids 2 Smart 1 Loving 1	Responsible 1 Active 1 Organized 2 Prepared 1 Nurturing 1 Strong 1 Patient 6 Loving 2 Playful 1 Forgiving 1 Calm 1 Understanding 1 Caring 1 Compassionate 1
Care Tasks	10	5	12	11
Attention/watch/listen/monitor	7	2	2	2
Being/giving what they need (responsivity)	8	2	6	4
Building a future	1		1	
Help	2			
Unsure	5	3		1
Effort: doing best	1	1	2	2
Prioritizing child	4		6	
Sacrificing	2			
Helps kids be the best they can be	1			1
Discipline	5	2		2
Always there	5	1	3	
Best of everything	3		1	
Warm house, security	4			

Doesn't yell all the time, call names/spank/abuse	3		1	
Kids turn out well (proof in outcome)	1			
Emphasizes education	2			
Be positive	1		1	
Not spoiled	3			
Knows the right way of doing things	1			
Worries about them	1			
Makes sure they're happy	1		2	1
Makes sure they're healthy	1		3	3
Relationship connection,	1	2	1	3
Lets them make mistakes	1			
Balance (discipline/love)	2		1	1
Same as Good Mother		10		
Has a job		1		
Puts in as much as mother		1		
Outings		3		
Respects partner		1		
Does his own thing		1		
Talks/communicates with kids		1		1
Knowing/reading baby's cry and needs, understanding		1	3	4
Treating him right			1	
Playing with him			1	5
Perspective taking			1	
"Me times ten"			1	
Asks for help			1	
Makes good decisions			1	1
Knows right and wrong			1	
Appreciates what they've got			1	
Follows them [kids] where they want to go			1	
Everything				4
Knowing [baby] best				1
Comforting				1
Controlling my anger				2
Keeping him occupied				2
Keeping up with everything				2
Making him laugh				2
Sharing my time				1

Table 3

Pregnant Participants' (Time 1) Beliefs about Good Mothers

Aspect of Parenting	Number of participants who cited
Being there	14
Traits (different qualities)	14
Providing/Support	12
Care Tasks	11
Teaching/guidance	8
Responding/meeting needs	7
Love	6
Attention/listening/monitoring	6
Protection/safety	5
Unsure/don't know	5
Always there (consistency)	5
Emotional support	4
Items mentioned only in T1	
Sacrificing	Helping kids be the best they can
Kids turn out well (proof in outcome)	Knows the right way of doing things
Worries about them	Lets them make mistakes

Table 4

Pregnant Participants' (Time 1) Beliefs about Good Fathers

Aspect of Parenting	Number of participants who cited
Being there	16
Providing/supporting	10
Same as good mother	10
Traits (different qualities)	7
Care tasks	5
Emotional Support	4
Unsure/don't know	4
Teaching/guidance	3
Taking child on outings	3
Items mentioned only about fathers	
[Same as a good mother]	Has a job
Puts in equal effort	Takes child on outings
Respects partner	Does his own thing

Table 5

Parenting Participants' (Time 2) Beliefs about Good Mothers

Aspect of Parenting	Number of participants who cited
Care Tasks	13
Being There	10
Traits	10
Love	7
Protection safety	7
Teaching/guidance	6
Prioritizing child over self	6
Providing/Support	4
Responding/giving needs	4
Always there (consistency)	4
Supervising health	3
Knowing/reading child	3
Items mentioned only in T2	
Treating him right	Playing with him
Perspective taking	Asks for help
Makes good decisions	Knows right and wrong
Appreciates what she has	Follows kids where they want to go

Table 6

Self Reported Maternal Strengths (Time 2)

Aspect of Parenting	Number of participants who cited
Traits	19
Care Tasks	9
Teaching/guidance	6
Knowing/reading child	5
Love	4
Meeting needs	4
Playing	4
Everything	4
Supervising health	3
Connection/bond	3
Providing/support	3
Being there	3
Protection/safety	3
Items mentioned only in Maternal Strengths	
"Everything"	Comforting
Controlling anger	Keeping baby occupied
Keeping up with everything	Making baby laugh
Sharing my time	

Table 7

Cross Case Matrix: Beliefs about Parenting

No.	Good Mother T1	Good Father T1	Good Mother T2	Maternal Strengths
1003	Being there emotionally and physically, dressing cute, making a good future for him, being what they need	Attention, help emotionally and physically	Caring by hearing/knowing from baby's cry what's wrong and showing/teaching.	"good at everything" and doing her best
1013	Protecting baby, can count on you, provide for him.	Being there, understanding and supporting baby.	Taking care of baby, providing with everything, showing love every day and treating him right.	Caring for baby, teaching him
1016	Being there, always there, help, support, whatever is needed	Not in and out of child's life	Providing the best, being there	"I think all [of it]"
1151	Being there, listening, caring for them, helping them do things	Loving, being there for the child and mother	Being there, listening, caring, helping them do things	Being there when needed, caring in the way the baby needs (responsive), helping her strive
1152	Unsure what a good mother is: being there, giving best, doing best, making sacrifices and prioritizing child	Always there for mother and child. Needs both M and F.	Taking good care of your child, understanding them the most, connect with them, teach right and wrong	Being connected with her son, understanding him, responsive to his needs and cries
1168	Raises kids to be the best they can be, to be leaders, disciplines them well, teaches what they need to know to be on their own	Same as mother	Prioritizes their children, puts their needs first	Being responsible, providing materially, discipline, teaching.
1171	Teaching good morals, not too strict, being there	Just being there, same as mother	Being there all the time, playing with him, showing and teaching	Being active with the baby, organization
1176	Always been there, best of everything, selfless	Provide emotionally and physically, show love, care tasks	Nurturing, provides for child, there when they need them and hwen they don't, role model, filters what the child is exposed to	Very prepared, very nurturing with everyone

1190	Teaches wrong from right, does what she's gotta do	Same thing	Keeps her baby happy and healthy. Protective	Came naturally. Loving her and giving her food
1193	Takes care of baby, be there for them when they need you	There when we need him, pays attention to us	Takes care, protects, teaches	Being there for her, check if she's doingwell, take temperature, take to doctor if she cries, teach her manners, discipline
1208	Has an education, able to provide, independent, prioritizes children	Being there, help take care of baby, has a job, car, independent	Patient, understanding, perspective taking,	Playing with her, knowing what she wants, knowing her better than anyone
1213	Being reliable, responsible, give child better things in life, show care and love, warm house—comfortable, secure and safe	put in as much as mother, give as much as they can, show you care, love them. Being there, including emotionally	n/a	Being a strong mother because there's nothing she can't do for her son. She's strong. Effort, balance, can "read" her baby.
1215	Doesn't know. Supportive, doesn't yell all the time.	Helpful	Cares for her child, love when they need it. Always there.	Lots of things. Being there when he needs it.
1218	Provides emotionally and physically, stable home environment, no spanking. Good moms' kinds turn out, they sacrifice and prioritize	The same	Making sure he's clean, happy, healthy	Making sure he has everything, being organized
1237	Listening to child, make sure good schooling, food, necessities, attention, affection discipline, support. Have everything and a lot of attention	Doesn't know. Same as mother. Taking child out, not leaving, washing the child, providing g support.	"Good mother would be me times ten"	Giving the essential needs, make sure he doesn't need anything, attention, care, support, protect.
1243	Supportive, always there.	Same as mother. Someone you can depend on financially	Do what she has to do, prioritizes baby	Giving her full attention, comforting her. "I'm a best mom"
1261	Not yet sure. Knowing what your child needs, being there all the time.	Very supportive of baby and partner.	There for her kids, make sure baby is healthy, watch development	Really patient, really loving, teach her things
1267	Being there all the time, taking care, making sure baby feels protected	Love baby, respect mom, be proud of being a father.	Being there when they need you, providing, doing everything for them	"I'm very patient" playful forgiving

1294	Doesn't know. Be positive, clear mind.	Don't know. Do your own thing, more into it.	Taking care of the baby, giving him love, making sure he's safe, making sure he's learning	Holding in my anger, keeping up with everything, keeping him occupied.
1331	Being supportive, making sure not spoiled, know the right way of doing things, take really good care, worry about them, is trusted with everything	Don't know. Didn't grow up with a father. Being there for them, taking care	Loving your child, taking care, prioritizing child over yourself. Being there	"I'm calm and understanding. I don't freak out. I just love her."
1323	Love, attention but not too much, doing stuff for them, helping them learn from my mistakes	Being there for kid, emotionally, can talk to kids. Don't really know.	Being there to give what baby needs, giving him love, feeding him, support.	Play with him, changing his diapers, making him laugh
1341	Provides not just basic needs but emotionally, makes sure they are healthy and happy, really connected to them, have a relationship.	Connected to family, supports wife and child, a backbone for the family	Puts child's needs before her own, keeps baby safe and clean	Paying attention to what she needs, what her signals are, interaction.
1347	taking care, providing needs, no abuse	Protects and supports, helps with care	Thinking positive, asking for help, knowing the baby's needs	Identifies herself as "good mom" Loves it. Playing reading, bathing, cutting nails.
1362	Being there, discipline, love, teaching,	Being there, providing, love	Being there when they need you, love your kid	Patience, love, bonding
1365	Listens to child, lets them make mistakes, monitors friends, helps with schoolwork, in charge but softhearted	Is the strict one	Safety, everything goes as planned, grow up and be smart for your kids, learning-wise	Keeping him safe, loving feeding, making sure he's happy, goes to dr., cooking
1393	Pays attention, be around, watch how they grow (don't force), guide to be responsible	Same as GM	Puts child first, grows up, doesn't need to be a child anymore	Communicating with baby, "I just know" what he wants. Good connections
1395	Don't know. Opinion related. Take care of your kid. Give them what they need. Show love—hasn't really thought of how	Same as GM	Doesn't call names, watches what they eat.	Comes natural
1402	Being there, providing roof over their head, supporting	Being there, supporting	Being there, being available, care tasks, safety	At first unsure. Then said all of it. Playing with baby, teaching her

1409	Balance between love and discipline, secure but not doted on, safe	Being there, enforcing rules, nurturing, teaching	Balance between being able to have rules and being able to compromise	Patience, caring, compassionate
1413	Being there, make sure child is educated, teaches, supports, provides needs	Same as mother, discipline	Love, making a good life plan for child, protecting	All of it: keeping him safe, making sure he's healthy, caring tasks
1439	Don't know; supportive. Best friend but not always your best friend	Always there.	All about the things you do for your child: can't buy love. Gives a good solid start in life by being there all day, giving of yourself.	My patience
1442	Patient, understanding, not closed-minded,	Takes kids everywhere, teaches them	Puts their child first, is financially supportive and loving	Making her laugh, keeping up with appointments, keeping her company
1485	Taking care of your child, providing roof over head, try to work it out	Be there for child, take him out, teach him	Being there for your child, making the right decisions, appreciate what you got and follow them wherever they want to go	Making good decisions
1487	Provide love, care for them, safe home, be there. Baby has simple needs.	Being there, helping out, interact and have relationship with baby.	Learns and grows day by day	Patience, sharing my time. Learned patience by watching mom, babysitting nephew
1507	Be there for kids, supportive, show them wrong and right.	Be there when the mother needs and same as mom.	There for your child, taking care, knowing what's right and wrong, leading them to the right path	Taking care of child, patience

Table 8

Cross Case Matrix: Development of Beliefs about Parenting

No.	Good Mother T1	Good Mother T2	Maternal strengths	G/S	I/A	D/M	Emerging beliefs after child's arrival:
1003	Being there emotionally and physically, dressing cute, making a good future for him, being what they need	Caring by hearing/knowing from baby's cry what's wrong and showing/teaching.	"good at everything" and doing her best	x	x		Uniqueness of her role, importance of interaction, teaching
1013	Protecting baby, can count on you, provide for him.	Taking care of baby, providing with everything, showing love every day and treating him right.	Caring for baby, teaching him	x	x		Care roles, teaching
1016	Being there, always there, help, support, whatever is needed	Providing the best, being there	Dealing with him every day. I think all of it.				Same: being there, providing
1151	Loving and taking care, make sure child's healthy, being there. Making sure they don't mess up. Loving. Listening.	Being there, listening, caring for them, helping to do things that they need to do	Being there when needed, caring in the way the baby needs (responsive), helping her strive	x	x		Helping child to do things
1152	Unsure what a good mother is: being there, giving best, doing best, making sacrifices and prioritizing child	Taking good care of your child, understanding them the most, connect with them, teach right and wrong	Being connected with her son, understanding him, responsive to his needs and cries	x	x	x	Unique role, teaching, connection
1168	Raises kids to be the best they can be, to be leaders, disciplines them well, teaches	Prioritizes their children, puts their needs first	Being responsible, providing materially,	x	x	x	Prioritizing and sacrificing

	what they need to know to be on their own		discipline, teaching.				
1171	Teaching good morals, not too strict, being there	Being there all the time, playing with him, showing and teaching	Being active with the baby, organization		x	x	Teaching, consistency
1176	Always been there, best of everything, selfless	Nurturing, provides for child, there when they need them and when they don't, role model, filters what the child is exposed to	Very prepared, very nurturing with everyone		x	x	Consistency, nurture, teaching, unique role
1187	Always there, have patience and love (that's automatic) know how to discipline. Just being there.	Loving. Give them what they need. Keep baby safe, know what they're not supposed to do.	"I don't know what I'm not good at." Everything: knowing what she needs, what's best.	x	x		Responsive to needs, safety, knowledge of what not to do.
1190	Teaches wrong from right, does what she's gotta do	Keeps her baby happy and healthy. Protective	Came naturally. Loving her and giving her food		x		Interaction, protection
1193	Takes care of baby, be there for them when they need you	Takes care, protects, teaches	Takes care, protects, teaches		x		Teaching
1208	Has an education, able to provide, independent, prioritizes children	Patient, understanding, perspective taking,	Playing with her, knowing what she wants, knowing her better than anyone		x		Qualities: patience, understanding, takes perspective
1213	Being reliable, responsible, give child better things in life, show care and love, warm house—	n/a: interviewer didn't ask	Being a strong mother because there's nothing she can't do for her son. She's strong. Effort,	-	-	-	-

	comfortable, secure and safe		balance, can "read" her baby.				
1215	Doesn't know. Supportive, doesn't yell all the time.	Cares for her child, love when they need it. Always there.	Lots of things. Being there when he needs it.		x	x	Care, consistency, love
1218	Provides emotionally and physically, stable home environment, no spanking. Good moms' kinds turn out, they sacrifice and prioritize	Making sure he's clean, happy, healthy	Making sure he has everything, being organized	x	x		Care roles, child's happiness and health
1233	Provides for child before providing for self. Everything they need (not necessarily want). Keeps kids healthy, taking time and getting involved. Read to them. ("opposite of my parents")	Just be there, let them know you're not abandoning them. Take care of everything, all the needs.	"I fit her needs." We have fun. We make each other laugh. I'm not mean to her. She's happy.			x	Dependability, consistency, providing needs
1237	Listening to child, make sure good schooling, food, necessities, attention, affection discipline, support. Have everything and a lot of attention	Don't know. Haven't seen one yet. "Good mother would be me times ten"	Giving the essential needs, make sure he doesn't need anything, attention, care, support, protect.		x		Sense of overwhelm or inadequacy
1243	Supportive, always there.	Do what she has to do, prioritizes baby	Giving her full attention, comforting her. "I'm a best mom"		x		Prioritizing and sacrificing
1261	Not yet sure. Knowing what your child needs,	There for her kids, make sure baby is	Really patient, really loving, teach her things	x	x		Baby health, monitoring development

	being there all the time.	healthy, watch development					
1267	Being there all the time, taking care, making sure baby feels protected	Being there when they need you, providing, doing everything for them	Being there when they need you, providing, doing everything for them		x		Adjusting being there "all the time" to "when they need you," sense of all-encompassing nature of motherhood.
1294	Doesn't know. Be positive, clear mind.	Taking care of the baby, giving him love, making sure he's safe, making sure he's learning	Holding in my anger, keeping up with everything, keeping him occupied.	x	x		Care roles, love, safety, teaching
1331	Being supportive, making sure not spoiled, know the right way of doing things, take really good care, worry about them, is trusted with everything	Loving your child, taking care, prioritizing child over yourself. Being there	"I'm calm and understanding. I don't freak out. I just love her."		x		Love, prioritizing and sacrificing
1323	Love, attention but not too much, doing stuff for them, helping them learn from my mistakes	Being there to give what baby needs, giving him love, feeding him, support.	Play with him, changing his diapers, making him laugh		x	x	Love (no longer "but not too much"), care roles, support
1341	Provides not just basic needs but emotionally, makes sure they are healthy and happy, really connected to them, have a relationship.	Puts child's needs before her own, keeps baby safe and clean	I really pay attention to what she needs, what her signals are. Try to teach her. She knows I'm there.		x		Prioritizing, care roles
1347	Taking care, providing needs, no abuse	Thinking positive, asking for help, knowing the baby's needs	Identifies herself as "good mom" Loves it. Playing reading, bathing, cutting nails.		x		Asking for support, coping skills related to parenting

1362	Being there, discipline, love, teaching,	Being there when they need you, love your kid	Patience, love, bonding				Same: being there, loving
1365	Listens to child, lets them make mistakes, monitors friends, helps with schoolwork, in charge but softhearted	Safety, everything goes as planned, grow up and be smart for your kids, learning-wise	Keeping him safe, loving feeding, making sure he's happy, goes to dr., cooking			x	Safety, planning, maturity
1393	Pays attention, be around, watch how they grow (don't force), guide to be responsible	Puts child first, grows up, doesn't need to be a child anymore	Communicating with baby, "I just know" what he wants. Good connections			x	Prioritizing and sacrificing, maturity
1395	Don't know. Opinion related. Take care of your kid. Give them what they need. Show love—hasn't really thought of how	Doesn't call names, watches what they eat.	Comes natural	x			Care roles: feeding; not calling names
1402	Being there, providing roof over their head, supporting	Being there, being available, care tasks, safety	At first unsure. Then said all of it. Playing with baby, teaching her				Same: being there, care tasks
1409	Balance between love and discipline, secure but not doted on, safe	Balance between being able to have rules and being able to compromise	Patience, caring, compassionate		x		Same general beliefs about balance but adjusts from balance between love and discipline to rules and compromise.
1413	Being there, make sure child is educated, teaches, supports, provides needs	Love, making a good life plan for child, protecting	All of it: keeping him safe, making sure he's healthy, caring tasks		x	x	Love, protecting, good life
1423	Provide food, shelter, love	Responsibility for yourself and someone else, being independent,	Love, feeding, keeping her clean, teaching her, reading to her,		x		Responsibility, independence

			playing. Everything. I'm a good mother.				
1436	Listen to your kids, don't ignore. Comforting	Respect, mutual respect. Responsive to her needs (if she doesn't want to be held, listen to that)	I'm fun, I'm as hyper as she is. I'm good at knowing her cries and at discipline.		x	x	Respect, responsivity.
1439	Don't know; supportive. You need to be able to talk to her. Best friend but not always your best friend.	All about the things you do for your child: you can't buy love. Gives a good solid start in life by being there all day, giving of yourself.	My patience	x	x	x	Being there (presence and consistency), prioritizing and sacrificing
1442	Patient, understanding, not closed-minded,	Puts their child first, is financially supportive and loving	Making her laugh, keeping up with appointments, keeping her company		x		Prioritizing and sacrificing, financially supportive, loving
1485	Taking care of your child, providing roof over head, try to work it out	Being there for your child, making the right decisions, appreciate what you got and follow them wherever they want to go	Making good decisions	x	x		Responsive, making decisions, being there, appreciative (coping skills)
1487	Provide love, care for them, safe home, be there. Baby has simple needs.	Learns and grows day by day	Patience, sharing my time. Learned patience by watching mom, babysitting nephew		x		Incremental: learns and grows day by day
1497	Not sure, I'll learn. Being there, supporting the kid, providing necessities	Taking care of the family, making sure everything's organized, clean.	Being protective, making sure he has what he needs	x	x	x	Care, organization

1507	Be there for kids, supportive, show them wrong and right.	There for your child, taking care, knowing what's right and wrong, leading them to the right path	Taking care of child, patience				Same: being there, showing right and wrong

G/S: General to Specific
I/A: Ideal to Actual
D/M: Daughter Mentality to Mother Mentality

Table 9

Cross-Case Matrix: Making Sense of Parenting

No.	Pregnancy	Valence	Life Change (pregnancy)	Impact of parenting on self (pregnancy + parenting)
1003	Unplanned	Shocked but happy and excited. Family supportive and excited	Some change: Not an obstacle, just slowed down. How she dresses, prefers being at home for safety to baby	Not an obstacle, just slowing down "when you're a parent, it doesn't matter what you do, you do your best on it."
1013	Unplanned. History of gangs, abuse, STDs.	Happy and worried. BF wouldn't allow abortion. Excited after hearing heartbeat	Big change: changed who she associated with, what she did, excuse to distance herself	Wanted to change to be an example. Sees the pregnancy as a huge positive influence ("my life changed when I got pregnant"). She changed who she associated with, what she did, and it gave her an excuse to distance herself from the gang. Wants the best for her baby.
1016	Planned (by her)	Excited to be pregnant, wanted to be pregnant since she was 16. "Looking for someone to love her."	Big change: responsibility	Wants to work to give baby a better life, responsibility
1151	Unplanned	In shock at first. Mother an adolescent mother, too	Small Change: quitting smoking but nothing else	Loves parenting. Easy baby. Whereas relationship with mother was on and off before, they are closer now.
1152	Unplanned.	Not excited initially, planning on going to college and wanted to be the one her mom was proud of. Doesn't believe in abortion. Baby's father supportive, excited.	"Not much change" disrupted plans for college and modeling	Made her better. Cites her mother's example.
1168	Unplanned	Disappointed, scared. Mother upset and disappointed.	Some change; thinks more about her baby. Can't do everything you want to do, progress slower through college	Strengthens bond with baby's father. Identity as a mom, seeing herself as important to her child.

1171	Unplanned	Scared then denial but now things are working out. Her mom was scared and sad at first but excited now. Feeling attached to the baby	Some change: being busier with dr. appts, no hockey, no lifting	Nothing explicit but themes of learning, effort, organization .
1176	Unplanned	FoB happy, P's mother mad. Not getting along with either	"drastic change" outlook has changed. More driven, I need to set things in order. Not just doing it for myself any more	Outlook has changed. Not just doing it for myself anymore, another reason to do things. More driven, know I need to set things in order.
1190	Planned	Wanted to give her dying mother a grandchild. Father of child is 51 and was shocked	Big change: don't have a life, inconvenience and discomfort	"she's [the baby's] influenced me to be a better person in general"
1193	Unplanned but unprevented	FoB was supportive but no longer is. Mother "I told you" not supportive.	Big change: wants to earn money, get education to support baby	You're a mom from the moment they're born. Change in outlook: wanting to improve education and ability to earn and support.
1208	Unplanned	Shocked, disbelief. Doesn't know the father's name	Big change: staying home, not going out. Physical discomfort, appearance changed, emotionally changed	n/a
1213	[No indication. married at 17.]	Husband not happy but came around. Family happy (mom is sick so she will be able to see baby)	Big change: spoiled by everyone, not working, focus on school, husband not as selfish, more about the baby	Want to work to provide for the child. . "Living to be a better person for him…it's a good achievement because it makes me want to better myself." I can better myself and get him and be strong for him and do whatever he wants or needs me to do.
1215	Planned	Happy, wanted and intended. FoB not as excited about it but came around	No change.	Not reflective on this
1218	Unplanned	Shocked and surprised—wanted baby eventually but bad timing	Big change: healthy, no drinking, have to put child ahead of self, have to mature, start working	"now that I'm pregnant I have to start from somewhere and build up because I'm having a baby" Boyfriend said "now we both have to

				work hard" Talks about pushing herself harder, working hard.
1237	Unplanned	Didn't feel ready but is happy. Grandmother frames it as a gift from P's mother, who had died.	Big change: pressure on her, not about her anymore, Dr appointments. Expected to be responsible and independent	Not about her any more, more about the baby
1243	Unplanned	In denial at first, scared. FOB was happy	Doesn't do as much as she used to; some change.	"I don't believe myself as a good mom, I'm a best mom"
1261	[Unplanned]	Scared, didn't know what to do. Fob happy & wanted her to keep it.	Big change: more sad (BF not as supportive as she hoped), work harder, work twice as hard to make up for FoB, more independent	Work harder, make up difference for missing Dad, more independent
1267	Unplanned. Got kicked out	Surprised; BF happy	Big: kicked out, negative effects with parents	n/a
1294	Unplanned but "kind of expected"	Bit scared but now she and FoB are really happy, preparing	Big change: more mature, more organized	More mature, more organized
1331	Unplanned	Scared and sad and happy and nervous. FOB broke up with her.	Big change: quit drugs, meds. Happy thinking about the aby. "I need to relax"	Change for the sake of the baby. Brought happiness, satisfaction in her competence.
1323	Unplanned	Tumultuous year leading up to preg: and upset about drugs and drinking when she didn't know she was preg. FOB nervous, now excited	Sense of smell, everyone's nicer but feels like she doesn't know what to do. Need a future for my kid	Feels like she needs to get a future for her kid's sake.
1341	Unplanned but unprevented	Mixed feelings: excited but not ready financially. Didn't envision herself as "one of those young mothers" Independent from family at young age	Motivated prenatally, aims to be "the best mom that I can possibly be." Doesn't feel she'll need too many resources for parenting	Emphasizes making child a priority, being mature. Pregnancy meant taking a break from her college plans but planning on returning soon (@T2).
1347	[unplanned]	Initially scared and shocked. Not sure why she kept the baby but FoB and family were happy	Nothing really, except feels she needs to get ready and prepare for the big responsibility. That's going to be a big change.	Thinks about the responsibility and reflects that pregnancy changes her life positively by helping her calm down and changing who

			she's around, less trouble. Parenting "made me who I am"
1362	Unplanned but unprevented	Was depressed about the future and wanted to have a baby before the world ended. Still, at first in denial and then excited.	Big change: doesn't smoke or drink anymore, more mature, improved relationship with parents	More mature, improved relationship with own parents
1365	[unplanned]	Denial at first. Family and FoB excited. Eventually happy	Big change, all positive: happy, look forward, positive, made her more motherly	More happy, look forward to waking up everyday. Didn't think she wanted kids but then had one and learned how
1393	Unplanned	Confused at first, in shock, then focused on how to "fix everything and make things go as planned"	Some change: unsure what.	Parenting is worth everythin she's gone through [transformative difference between interviews] "once you become a mother, you should stop being a child. I don't know. I just feel like once I had him, it was time to grow up. If I want to still be a kid, I can be a kid with him. I don't need to be a kid the way I was before."
1395	Unplanned but she "expected it"	Twins. Doesn't know how she felt, FoB excited. Scared at twins but not anymore	Big change: withdrew from school, too many appointments,	Sense of independence, responsibility, confidence. Not particularly self evaluative.
1402	[unplanned]	Shocked but excited. Knew it was going to be hard. FoB excited.	Not much change: more to think about, talk aobut	Not much reflection on this, though she does seem to gain a sense of purpose and confidence
1409	Unplanned. Second pregnancy (first one miscarried)	Numb at first but never truly upset: "motherhood is a great experience as long as you can provide"	Big change: lost job due to morning sickness, no longer do risky behaviour, don't think about myself, changed lifestyle and friends	Change of lifestyle, prioritize baby, no more risky behaviour
1413		She and FoB were both happy about it	More conflict with BF but mostly good changes: grew closer, lots of people who care	More motivated, bigger plans, can see a straight path to where I'm going. Transformative, gave meaning and focus
1439	Unplanned; talking about having a baby	Scared, crying about it. Baby's father is 22 and has two children with another	Big change: respect for parents, gets along with mom better. Rough pregnancy: lots of sickness and	Lot more respect for parents, realizing they just wanted the best for her. Mom and P get along better now, healing. New outlook. BF

	eventually but not now	woman. Kept the baby because she doesn't believe in abortion.	losing weight because of it, in and out of hospital.	and P talking about getting married. Rough pregnancy—medical changes and sickness
1442	Unplanned Close with mother, who thinks P can do better than the FOB and they argue about that. Went to the doctor when feeling ill and found out pregnant. Didn't consider abortion; doesn't believe in it.	Participant's mother was very angry about it. Participant felt depressed—mother not talking to her. Eventually decided to keep the baby and participant's mother came around to support her.	Huge change: : "I never got to be sixteen because my birthday is in June. I got pregnant in August so it was like not being sixteen at all." I changed a lot. More responsible that I was before…I can't be lazy [now]." Learned to be more independent "that is my child. It's not my mother's child."	Improved relationship with mom "I think the pregnancy changed a lot because [my mom] used to think I was a little off…I talk to her more than I talk to some of the other people I used to talk to." More responsible that I was before…I can't be lazy [now]." Learned to be more independent "that is my child. It's not my mother's child."
1485	n/a	Happy—something to call hers. FoB in shock. Mother (who is actually her aunt) was happy.	Big change: Moving away from FOB[pregnancy] "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a lot of friends whose kids got taken away because they were smoking or doing this and I changed it because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, think like a mom, sees how her mom thought about her (perspective shift)	"I think different now" "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a lot of friends whose kids got taken away because they were smoking or doing this and I changed it because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, perspective shift "think like a mom" more responsible. "I thought I was gonna stay wild and something was gonna happen but I changed totally , the way of me thinking" Closer to her mom.

1487	Unplanned	Thought she couldn't get pregnant due to cysts. Excited, disbelief. "We can do this"	Extremely big change: more careful about what she does, home early, seatbelt on, no heels, eats healthy.	Impact of caring about somebody's life and not just hers. Perspective.
1507	Unplanned	Scared but confident. Worried about telling mom but she is supportive	Some change: taking it out on FofB due to mood swings.	Change in developmental trajectory, more responsible

Table 10

Cross-Case Matrix: Meaning Making and Categories of Change

No.	Life Change (pregnancy)	Impact of parenting on self (pregnancy + parenting)	Life change	Self change	Relationship change	Transformer/ remainer
1003	Some change: Not an obstacle, just slowed down. How she dresses, prefers being at home for safety to baby	Not an obstacle, just slowing down "when you're a parent, it doesn't matter what you do, you do your best on it."	x	x		
1013	Big change: changed who she associated with, what she did, excuse to distance herself	Wanted to change to be an example. Sees the pregnancy as a huge positive influence ("my life changed when I got pregnant"). She changed who she associated with, what she did, and it gave her an excuse to distance herself from the gang. Wants the best for her baby. "I have something to live for…I'm living to be a better person for him and to give him a lot of the things that I didn't have. It's a good achievement for me because it makes me want to better myself. I makes me want to be more in life and it gives me that motivation." "Every decision I make in life, I have to look back on him and is it okay for him, you know?"	x	x	x	Transformer
1016	Big change: responsibility	Wants to work to give baby a better life, responsibility	x	x		
1151	Small Change: quitting smoking but nothing else	Loves parenting. Easy baby. Whereas relationship with mother was on and off before, they are closer now.			x	
1152	"Not much change" disrupted plans for college and modeling	Made her better (not specific)		x		Remainer

1168	Initially: sRome change; thinks more about her baby. Can't do everything you want to do, progress slower through college	Strengthens bond with baby's father. Identity as a mom, seeing herself as important to her child.	x	x	x		Transformer
1171	Some change: being busier with dr. appts, no hockey, no lifting	Nothing explicit but themes of learning, effort, organization .		x			
1176	"drastic change" outlook has changed. More driven, I need to set things in order. Not just doing it for myself any more	Outlook has changed. Not just doing it for myself anymore, another reason to do things. More driven, know I need to set things in order.	x	x	x		Transformer
1187	No much, just how I feel: tired sometimes. Big emotional change though.	Personal confidence: good at everything.		x			
1190	Big change: don't have a life, inconvenience and discomfort	"she's [the baby's] influenced me to be a better person in general"		x			
1193	Big change: wants to earn money, get education to support baby	You're a mom from the moment they're born. Change in outlook: wanting to improve education and ability to earn and support.	x	x			
1208	"Big change", mostly surface: staying home, not going out. Physical discomfort, appearance changed, emotionally changed	n/a					Remainer
1213	Big change: spoiled by everyone, not working, focus on school, husband not as selfish, more about the baby	Want to work to provide for the child. . "Living to be a better person for him…it's a good achievement because it makes me want to better myself." I can better myself and get him and be strong for him and do whatever he wants or needs me to do.	x	x			
1215	No change.	Not reflective on this					Remainer

1218	Big change: healthy, no drinking, have to put child ahead of self, have to mature, start working	"now that I'm pregnant I have to start from somewhere and build up because I'm having a baby" Boyfriend said "now we both have to work hard" Talks about pushing herself harder, working hard.	x	x		
1233	Big change, huge: more responsible, more on top of things, more organized. Know what I want now but before I didn't. Made me more mature, really think that I need to get my own place. I don't want her exposed to the homeless life. Looking forward to it, I can handle it.	Parenting feels wonderful, she loves it. Motivated that no one can do what's she's doing. Meaningful role.	x	x		
1237	Big change: pressure on her, not about her anymore, Dr appointments. Expected to be responsible and independent	Not about her any more, more about the baby	x	x		
1243	Doesn't do as much as she used to; some change.	"I don't believe myself as a good mom, I'm a best mom"				
1261	Big change: more sad (BF not as supportive as she hoped), work harder, work twice as hard to make up for FoB, more independent	Work harder, make up difference for missing Dad, more independent		x		
1267	Big: kicked out, negative effects with parents				X negative	
1294	Big change: more mature, more organized	More mature, more organized		x		
1331	Big change: quit drugs, meds. Happy thinking about the aby. "I need to relax"	Change for the sake of the baby. Brought happiness, satisfaction in her competence.	x	x		
1323	Sense of smell, everyone's nicer but feels like she doesn't know	Feels like she needs to get a future for her kid's sake.	x			

	what to do. Need a future for my kid					
1341	Motivated prenatally, aims to be "the best mom that I can possibly be." Doesn't feel she'll need too many resources for parenting	Emphasizes making child a priority, being mature. Pregnancy meant taking a break from her college plans but planning on returning soon (@T2).	x	x		
1347		Thinks about the responsibility and reflects that pregnancy changes her life positively by helping her calm down and changing who she's around, less trouble. Parenting "made me who I am"		x		
1362	Big change: doesn't smoke or drink anymore, more mature, improved relationship with parents	More mature, improved relationship with own parents		x	x	
1365	Big change, all positive: happy, look forward, positive, made her more motherly	More happy, look forward to waking up everyday. Didn't think she wanted kids but then had one and learned how	x	x		
1393	Some change: unsure what.	Parenting is worth everythin she's gone through [transformative difference between interviews] "once you become a mother, you should stop being a child. I don't know. I just feel like once I had him, it was time to grow up. If I want to sstill be a kid, I can be a kid with him. I don't need to be a kid the way I was before."		x		
1395	Big change: withdrew from school, too many appointments,	Sense of independence, responsibility, confidence. Not particularly self evaluative.		x		
1402	Not much change: more to think about, talk aobut	Not much reflection on this, though she does seem to gain a sense of purpose and confidence		x		

1409	Big change: lost job due to morning sickness, no longer do risky behaviour, don't think about myself, changed lifestyle and friends	Change of lifestyle, prioritize baby, no more risky behaviour	x	x		
1413	More conflict with BF but mostly good changes: grew closer, lots of people who care	More motivated, bigger plans, can see a straight path to where I'm going. Transformative, gave meaning and focus	x	x		Transformer
1423	Big change. Take things more seriously, change in priorities	Take things more seriously. Can't not go to school…I'm on my own and my child has to survive. I have to support a child. A lot of things I wasn't thinking about before, now I am: life after school, job. Responsibility. Loves being a parent.	x	x		
1436	A lot of change personally: more understanding, it's complicated [to explain]	More understanding		x		
1439	Big change: lot more respect for parents, realizing they just wanted the best for her. Mom and P get along better now, healing. New outlook. BF and P talking about getting married. Rough pregnancy—medical changes and sickness	Perspective, relationship with mother and bf changed, new outlook.		x	x	
1442	Huge change: : "I never got to be sixteen because my birthday is in June. I got pregnant in August so it was like not being sixteen at all." I changed a lot. More responsible that I was before…I can't be lazy [now]." Learned to be more independent "that is my child. It's not my mother's child."	Improved relationship with mom "I think the pregnancy changed a lot because [my mom] used to think I was a little off…I talk to her more than I talk to some of the other people I used to talk to." More responsible that I was before…I can't be lazy [now]." Learned to be more independent "that is my child. It's not my mother's child."		x	x	

1485	Big change: Moving away from FOB[pregnancy] "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a lot of friends whose kids got taken away because they were smoking or doing this and I changed it because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, think like a mom, sees how her mom thought about her (perspective shift)	" think different now" "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a lot of friends whose kids got taken away because they were smoking or doing this and I changed it because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, perspective shift "think like a mom" more responsible. "I thought I was gonna stay wild and something was gonna happen but I changed totally , the way of me thinking" Closer to her mom.	x	x	x	Transformer
1487	Extremely big change: more careful about what she does, home early, seatbelt on, no heels, eats healthy. Moved in with baby's father.	Impact of caring about somebody's life and not just hers. Perspective.	x	x	x	Transformer
1497	Big change: stopped thinking of herself and "quit doing a lot of stupid things I used to and acting stupidly" my view of things has changed in the way I act towards people and my attitude. More responsible and plan out things.	Not much time for herself but likes parenting.		x		
1507	Some change: have to be more responsible now. Have to learn things that a mother needs to know even though a teenager shouldn't have to know those things. Grow up faster. taking it out on FofB due to mood swings.	Change in developmental trajectory, more responsible. It's a good experience. More responsible, learning things earlier, growing up faster.	x	x		

Total	20	34	10	Transformers: 6 Remainers: 3

Table 11

High Meaning Making: Transformers

No.	Life Change (pregnancy)	Impact of parenting on self (pregnancy + parenting)	Life change	Self change	Rel. change	Enrollment	Life Details
1013	Big change: changed who she associated with, what she did, excuse to distance herself	Wanted to change to be an example. Sees the pregnancy as a huge positive influence ("my life changed when I got pregnant"). She changed who she associated with, what she did, and it gave her an excuse to distance herself from the gang. Wants the best for her baby.	x	x	x	Active: 49 visits	Unplanned pregnancy, history of gang involvement, abuse, STD. Close to mother, who was also an adolescent mother. Sees her strengths as teaching baby, caring for him.
1168	Some change; thinks more about her baby. Can't do everything you want to do, progress slower through college	Strengthens bond with baby's father. Identity as a mom, seeing herself as important to her child.	x	x	x	Active: 58 visits	Unplanned pregnancy, mother, grandmother, cousins all adolescent mothers. Progressing slower through college. Surprised at how much she enjoys motherhood. Sees her strengths as being responsible, proving, discipline, teaching. Emphasizes

							education/teaching component of parenting.
1176	"Drastic change" outlook has changed. More driven, I need to set things in order. Not just doing it for myself any more	Outlook has changed. Not just doing it for myself anymore, another reason to do things. More driven, know I need to set things in order.	x	x	x	Active: 77 visits	College freshman, unplanned pregnancy. Rocky relationships with family and baby's father before pregnancy. Sees strengths as being very prepared, very nurturing with everyone. Learned from her mother, uses her as mentor.
1413	More conflict with BF but mostly good changes: grew closer, lots of people who care	More motivated, in school, bigger plans, can see a straight path to where I'm going. Transformative, gave meaning and focus	x	x	x	Dropped out T2: 24 visits	Transitory childhood: parents, foster care, back with father. She and father of baby happy about the pregnancy. Sees strengths as all of it: keeping him safe, making sure he's healthy, caring.
1485	Big change: Moving away from FOB[pregnancy] "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a	I "think different now" "changed my way of thinking in a lot of ways. People say it changes when the baby is born but I didn't' think about it like that because I have a lot of friends whose kids got taken away because they were smoking or doing this and I changed it	x	x	x	Dropped out: Moved 20 visits	Raised by aunt (mother died), relationship rocky before but now very close after pregnancy, which was "a turning

	lot of friends whose kids got taken away because they were smoking or doing this and I changed it because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, think like a mom, sees how her mom thought about her (perspective shift)	because I didn't want to be like that." Which affected relationship with FOB. Want to get everything together, "I want to be the right mom" More mature, perspective shift "think like a mom" more responsible. "I thought I was gonna stay wild and something was gonna happen but I changed totally , the way of me thinking" Closer to her mom.					point" for family dynamic. Happy about pregnancy— "something to call hers." Baby brought happiness, the family together. Also meant she cut things off with baby's father. Sees strengths as making good decisions [with baby in mind].
1487	"Extremely big change": more careful about what she does, home early, seatbelt on, no heels, eats healthy.	Impact of caring about somebody's life and not just hers. Perspective.	x	x	x	Active	Before pregnancy, anxious about school and decisions. Moved out with boyfriend. Unplanned but excited about baby—thought she couldn't get pregnant. Sees strengths as patience, sharing her time. Good mother "learns and grows day by day"

Table 12

Low Meaning Making: Remainers

No.	Change (pregnancy)	Impact of parenting on self (pregnancy + parenting)	Life change	Self change	Rel. change	Enrollment	Life Details
1152	"Not much change"	Changed her for the better		x		Dropped out T2: "Irrelevant" 5 visits	Unplanned pregnancy disrupted plans for modelling and college. Mother was adolescent mother and worried. Wants to be role model for cousins.
1208	Superficial change: staying home, not going out. Physical discomfort, appearance changed, some emotions	n/a				Dropped out T2: Moved 3 visits	Unplanned pregnancy, good relationship with mother but estranged from her own father and doesn't know baby's father's name. Waited several months before confirming pregnancy. "Kept it"; had already had an abortion before. Sees strengths as playing with her and knowing what she wants.
1215	No change.	Not reflective on this				Dropped out T3: Lost contact 28 visits	Married to baby's father, planned pregnancy. Happy about it (though husband and her own father not as excited about it). She says they parent automatically. Sees strengths as lots of things. Being there.

Table 13

Cross-Case Matrix: Fixed, Incremental, and Mixed Implicit Beliefs

Participant ID	Implicit Beliefs about Parenting	Mindset
1003	Didn't learn it, it just happened. You just know naturally.	Fixed
1013	Own instincts. Following what you think is right and following your own feelings. Opinions from others but you decide whether to use them	Mixed
1016	Didn't learn, it just came. Mother showed how to care for baby: "I learned from the best"	Mixed
1151	Stayed in HF program because it's helping her be a better mother. Learned by watching and helping, being eldest grandchild	Incremental
1152	Taught by mom to be patient	Incremental
1168	Considers herself a natural mom who might have received bits and pieces of knowledge and mentoring from others but doesn't consider it learning from them.	Fixed
1171	Mother helped her learn, Learned from baby together, watched other people.	Incremental
1176	Learned from her mother about how to care for a baby and what moms do	Incremental
1187	Partly learned from watching other people Partly it comes natural	Mixed
1190	Just came naturally "Just came with the child, I guess" Maternal strengths just came naturally.	Fixed
1193	[Knowing how to parent] grows like a seed you plant and water. From the moment you have your kids you're a mom	Mixed
1208	"it's an instinct I have"	Fixed
1213	Something that just came natural to her Says she joined HF to be taught about parenting. Learned by experience taking care of siblings and babysitting jobs	Mixed
1215	"I learned as I go" Just came naturally. She and her husband parent "automatically." Just picked it up.	Fixed
1218	"Just how I am with everything." "as soon as I had my baby, I just got into doing it." Signed up for HF for the help and direction. Self taught (effort and learning, just not from others)	Mixed
1233	"Can't tell someone how to be a mom. You have to know that yourself."	Mixed
1237	"All I can do is try. Not the best, but I try."	Incremental

1243	Learned through support and encouragement, Self taught on her own watching tv and how they do it.	Incremental
1261	Learned as she went along. Just having the baby taught her, primarily. Influenced by opinions and looks to own mother as example but that was secondary	Incremental
1267	Figuring it out together with her baby. Self taught. "It came with the kid"	Incremental
1294	My own instincts. "All instinct, all intentional." Haven't learned from anyone Also learned by experience working in daycare,	Mixed
1323	Always learning Always learning, still learning.	Incremental
1331	Learn by doing (from the baby). No way to learn until you have your baby.	Incremental
1341	Just came natural to her Also read books (taught self)	Mixed
1347	Learned from friends, her mom, HF, common sense	Incremental
1362	Learned by doing…"Cause you can never, you can't learn how to be a mom unless you're a mom." Nobody taught me.	Incremental
1365	Learned by having a kid; learned as I went. HF helped, too.	Incremental
1393	Just came natural, following the baby's lead. "I just know" what the baby wants. Also listened to the doctor and watched kids around me	Mixed
1395	Just comes natural to her but not to everyone. "For some people it just comes natural, for others, they've got to learn the hard way"	Fixed
1402	Comes naturally Said she cared for siblings but nobody influences or taught— just her	Fixed
1409	"How good of a parent you will be depends on how well you are educated" (T1) Also HF helped suggest things Self taught, reading and internet.	Incremental
1413	Comes naturally. Believes everyone can be a good mom unless you don't want to be. Also received advice from FOB's grandmother about feeding (she sometimes listens, sometimes not) and learned through her own experience babysitting,	Mixed
1423	"It came with me." And basically learned by myself and from the baby; I learn from her and she learns from me	Mixed
1436	"I have a lot of instincts, really good instincts about parenting…just the type of person I am helps" Also learned from experience babysitting siblings	Mixed

1439	"I guess it just came naturally." People give advice of help "maybe you should try this" Experience: it helped that I had siblings, work in daycare centers.	Mixed
1442	Comes naturally	Fixed
1485	Just came naturally. Also it was a process with steps on the way.	Mixed
1487	"I learn from my experience" "You have to figure it out, day by day you learn something new about your kid" Babysitting, watching her mom and other moms	Incremental
1497	"I think you just learn as it goes cause I didn't know how to do anything [before becoming a parent]" "I think it's instinct…I don't think they could really teach you, it just comes naturally"	Mixed
1507	Comes natural, mostly for women, for most mothers. When the baby's born it comes naturally. Also learned from family members who have children.	Mixed

Table 14

Participant Distribution: Implicit Belief Categories

Belief Category	Number of Participants	Percentage of Total
Fixed	8	20%
Incremental	15	37.5%
Mixed	17	42.5%
Total	40	100%

Table 15

Cross-case Matrix of Participant Mindset, Program Use, and Enrollment Status

Participant	Mindset	Program Use	Enrollment	Moved
1003	Fixed	Low	Dropped	Moved
1013	Mixed	High	Active	
1016	Mixed	High	Dropped	
1151	Incremental	High	Active	
1152	Incremental	Low	Dropped	
1168	Fixed	High	Active	
1171	Incremental	Moderate	Dropped	
1176	Incremental	High	Active	
1187	Mixed	High	Active	
1190	Fixed	Moderate	Dropped	
1193	Mixed	Low	Dropped	
1208	Fixed	Low	Dropped	Moved
1213	Mixed	Low	Dropped	
1215	Fixed	Moderate	Dropped	
1218	Mixed	Low	Dropped	
1233	Mixed	Moderate	Dropped	
1237	Incremental	High	Active	
1243	Incremental	High	Active	
1261	Incremental	High	Active	
1267	Incremental	High	Dropped	Moved
1294	Mixed	High	Active	
1323	Incremental	Moderate	Dropped	
1331	Incremental	High	Dropped	
1341	Mixed	Moderate	Dropped	Moved
1347	Incremental	Moderate	Dropped	
1362	Incremental	High	Dropped	
1365	Incremental	High	Active	
1393	Mixed	Moderate	Dropped	Moved
1395	Fixed	High	Dropped	
1402	Fixed	Low	Dropped	
1409	Incremental	Moderate	Dropped	
1413	Mixed	Moderate	Dropped	
1423	Mixed	Low	Dropped	Moved
1436	Mixed	High	Active	
1439	Mixed	High	Active	
1442	Fixed	Moderate	Dropped	
1485	Mixed	Moderate	Dropped	Moved
1487	Incremental	High	Active	
1497	Mixed	Moderate	Dropped	
1507	Mixed	High	Active	

Table 16

Retention of Fixed, Incremental, and Mixed Theorists

Implicit Belief Category	N	Active = Retention Rate	Dropped out		
			Dropped out	Dropped out in first year	Dropped out in second year
Fixed	8	1/8 (12.5%)	7/8 (87.5%)	4/8	3/8
Incremental	15	7/15 (47%)	8/15 (53%)	6/15	2/15
Mixed	17	6/17 (35%)	11/17 (65%)	10/17	1/17
Total	40	14/40 (35%)	26/40 (65%)	20/40 (50%)	6/40 (15%)

Table 17

Retention of Fixed, Incremental, and Mixed Theorists Adjusted for Moving Attrition

Implicit Belief Category	N	Active = Retention Rate	Dropped out		
			Dropped out	Dropped out in first year	Dropped out in second year
Fixed	7	1/7 (14%)	6/7 (86%)	3/7	3/7
Incremental	14	7/14 (50%)	7/14 (50%)	6/14	1/14
Mixed	12	6/12 (50 %)	6/12 (50 %)	5/12	1/12
Total	33	14/33 (42%)	19/33 (58%)	14/33	5/33

Table 18

Home Visit Use for Fixed, Incremental, and Mixed Theorists

Implicit Belief Category	N	Home Visits		
		Low (less than 11 visits)	Moderate (11-35 visits)	High (36-99 visits)
Fixed	8	3/8 (37.5%)	3/8 (37.5%)	2/8 (25%)
Incremental	15	1/15 (6.6%)	4/15 (26.6%)	10/15 (66.6%)
Mixed	17	4/17 (24%)	6/17 (35%)	7/17 (41%)
Total	40	8 (20%)	13 (32%)	19 (47.5%)
Ratios		Out of 8: 38 % F 13% I 50%M	Out of 13: 23% F 31% I 46% M	Out of 18: 11% F 56% I 33% M