**DOULAS, SOCIAL SUPPORT, AND POSTPARTUM DEPRESSIVE SYMPTOMS**

by

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# ABSTRACT

This study will aid in determining if the social support from a professional doula reduces the severity of postpartum depressive symptoms and increases perceived social support compared to a control group. A sample of 37 primiparous married women aged 20–43 years served as participants. Sixteen participants received the services of a doula while twenty-one received no doula services. They were required to complete the Beck Depression Inventory and the Postpartum Support Questionnaire on two occasions: 4 weeks prior to the due date, and 4 weeks after the delivery. A short telephone interview was completed with the return of the second set of questionnaires to provide qualitative data. *T*-tests were used to analyze the quantitative data. The results showed no significant differences in postpartum depressive symptoms after delivery, however a trend towards a medium effect size is noted. Those women employing the services of a doula did not perceive more support received, however did perceive a higher degree of importance of social support than the control group after delivery.

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First and foremost I would like to give thanks to the God of all creation for the miracle of new life.

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# CHAPTER 1

## INTRODUCTION

The transition to motherhood is a life event requiring much adaptation and understanding. The new mother is faced with responsibilities of a role in which she is not familiar. This role transforms her status in society as she enters into the new world of parenthood. The research question this study will investigate is: Does using the services of a doula reduce the severity of postpartum depressive symptoms and increase the perceived amount of social support received?

Perceived social support has been linked to positive mental and physical health outcomes (Cohen & McKay, 1984). The underlying theoretical framework on which this study is based, maintains social support from family and friends is effective in decreasing postpartum depressive symptoms (O'Hara, 1986; Cutrona & Troutman, 1986). Is a doula, someone who a new mother compensates monetarily to provide her with social support, also effective in reducing these symptoms? Using the services of a professional doula is a recent phenomenon. Doulas of North America (DONA) was founded as recently as 1992 (Doulas, 1998, March 15). There have been studies that have pointed to the benefits of doulas during delivery and birth outcomes (Hodnett & Osborn, 1989; Klaus et al., 1993, Kennell & McGrath, 1993), yet the research is scarce regarding the benefits of doulas for women in the postpartum period. Of particular interest to this study is the positive impact of doulas on reducing postpartum depressive symptoms, and increasing perceived effective social support.

The key independent variable of this study is the services of a professional doula. These "services" are typically rendered during the several months prior to delivery, through a series of scheduled meetings, and cover the following areas:

addressing the expectant mother's questions and concerns regarding the labour and delivery process, developing a strategic birth plan, and exploring various expectations—the hopes and dreams—of the mother-to-be and her partner. The doulas are supportive by being physically present during the entire labour process, encouraging the woman throughout her birthing and advocating for her needs to medical staff. Typically, the day after the birth the doula, new mother and partner meet together to look back at the experience, to talk about the process. Doulas are knowledgeable about areas such as breastfeeding, physical changes in the mother and how to adjust daily routines; this targeted approach assists the new mother in the early postpartum period of her life, a time of significant transitions.

The dependent variables in this study are the severity of postpartum depressive symptoms and the amount of perceived effective social support. Postpartum depression will be measured using the Beck Depression Inventory (BDI: Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) while social support will be measured using the Postpartum Support Questionnaire (PSQ: Logsdon, Usui, Birkimer, & McBride, 1996). Tying the quantitative results of these questionnaires will be the employment of a short telephone interview to ascertain qualitative aspects of the participants' experiences.

This is an initial small scale study which hypothesizes that those women employing the services of a doula perceive a higher degree of social support and have less severe postpartum depressive symptoms that those with no doula services. This predicts that those women who have had a specialized source of support for a unique experience and transition in their lives respond positively. Further areas of research can be looked at in terms of all of the sources of support the women receives, the nature of these supportive relationships and the level to which these relationships are supportive for her. It is imperative that society discover all it can about easing the transition to

motherhood through developing preventative measures to combat the debilitating effects of postpartum depression, as mothering is the most common occupation in the world, responsible for shaping the lives of future generations.

# CHAPTER 2

# LITERATURE REVIEW

## Theoretical Perspectives on Postpartum Depression

This study is interested in postpartum depression, especially researching the factors which lessen the severity of its symptoms. The research objective for this thesis project is to discover if using the services of a doula aid in reducing the severity of postpartum depressive symptoms. Although childbirth is a joyous time for many couples, it brings with it "dramatic changes to the marital relationship, family and social roles, and daily routines of the family members" (Gotlib, 1998, 489). Many women find this transition difficult and develop various types of depressive symptoms in the postpartum period.

There are generally three distinct categories of depression in the postpartum. Baby or "maternity blues is considered a relatively mild, self-limiting mood state that occurs within the first 2 weeks postpartum with an incidence of 50%–80%" (Stowe & Nemeroff, 1995, 639). It is characterized by tearfulness, irritability, and anxiety (Dobie & Walker, 1992). Postpartum depression, the focus of this study is the second category and affects about 10%–20% of women (O'Hara et al., 1984; Dobie & Walker, 1992). The third category is postpartum psychosis with a prevalence of 0.1% to 0.2% which typically occurs within the first month after delivery (Stowe & Nermeroff, 1995; Gotlib, 1998). This is a very serious condition characterized by delusions, mania, or schizoaffective signs (Dobie & Walker, 1992).

Postpartum depression includes the symptoms of baby blues and in addition is commonly characterized by; tearfulness, decrease in interest in pleasurable activities, changes in appetite and sleep, feelings of guilt or worthlessness, loss of energy,

decreased concentration, and thoughts of death or suicide (Yonkers and Chantilis, 1995). "When delusions are present, they often concern the newborn infant….Women with postpartum major depressive episodes often have severe anxiety, panic attacks, spontaneous crying long after the usual duration of "baby blues"…, disinterest in their new infant, and insomnia" (DSM-IV, 1994, 386). These symptoms appear approximately two weeks after delivery and continue into the next few months postpartum (Lips, 1993). The DSM-IV (1994) notes that to specify the onset of postpartum depression the criteria must be met within four weeks postpartum. Interestingly, Kumar (1994) states that postpartum depression, which has a predominantly psychosocial etiology, does not appear to vary in incidence across different cultures in the studies where direct comparisons could be made.

Research on the etiology of postpartum depression has focused on four areas: predisposing physiological factors, predisposing psychological characteristics, precipitating stressful events, and the absence of adequate social support. Predisposing physiological factors have, in general, been linked to hormone levels and menstrual histories. This perspective notes that dramatic changes in hormone levels occur: progesterone, estrogens, and prolactin rise to very high levels by the end of pregnancy and decrease quickly after delivery. Studies in these areas have yielded mostly negative results in linking these hormones to postpartum depression (Dalton, 1971; Harris et al., 1989). Dobie and Walker (1992) note that all postpartum women experience these changes in hormonal levels; however, only some become depressed. Others have sought to establish a connection between premenstrual syndrome and postpartum depression. Pajer (1995) notes that symptoms of depression are often related in conjunction with premenstrual syndrome. Depression in the premenstrual portion of the menstrual cycle predicts increased possibility of the onset of major depression (Graze et al., 1990). Two

studies have found a relationship between postpartum blues and a history of irregularity of the menstrual cycle (Handley et al., 1980; Yalom et al., 1968). Yalom et al. (1968) also found that likelihood of postpartum blues were associated with various menstrual factors including younger age of menarche, shorter duration of menstrual flow, and longer interval since previous pregnancies. Postpartum depression was correlated with previous dysmenorrhea by Pitt (1968). Although there are physiological factors which may have a small part to play in the onset of postpartum depression, these do not seem to be most important factors overall.

Predisposing psychological characteristics are another factor in the etiology of postpartum depression. Most studies looking at this factor have found that a higher proportion of women who develop postpartum depression have a history of previous psychiatric problems than women who do not become depressed after giving birth. O'Hara et al. (1984) suggests that a history of affective symptoms is a good predictor of postpartum depression. The DSM-IV echoes this by informing readers that "the risk of postpartum episodes with psychotic features is particularly increased for women with prior postpartum mood episodes but is also elevated for those with a prior history of a mood disorder (especially Bipolar I Disorder). Once a woman has had a postpartum episode with psychotic features, the risk of recurrence with each subsequent delivery is between 30% and 50%. There is also some evidence of increased risk of postpartum psychotic mood episodes among women without a history of Mood Disorders with a family history of Bipolar Disorders" (DSM-IV, 1994, 386-387). Therefore, the risk of postpartum depression is elevated by either a woman's own past experience of postpartum depression, or that of her mother's.

A third factor in postpartum depression is that of precipitating stressful events. The birth of baby is an event which requires a change in schedules, daily tasks,

perceived role, adaptation, and re-adjustment. Although this is a stressful event, it is not one which alone would cause a woman to become depressed after delivery. However, coupled with other stressful events in a woman's life during pregnancy and soon after delivery, depression could result (Paykel et al., 1980). In fact, these researchers report that the probability of becoming depressed in the postpartum is three times greater if a significant stressful event has recently occurred; housing problems and financial strain have been associated with postpartum depression (Paykel et al., 1980). Stress related to the baby's behaviour is also correlated with postpartum depression. Hopkins et al. (1987) report that infants of depressed mothers had a significantly greater incidence of neonatal complications, and that they were rated by their mothers as more difficult, fussy, and less adaptable than the infants of the non-depressed subjects. Adjusting to a new baby requires emotional energy and when this internal resource becomes increasingly taxed by a tightly clustered series of stressors, vulnerability to postpartum depression is not surprising.

Inadequate social support is the third factor which researchers examine in the etiology of postpartum depression. Primarily, the strength of the marital relationship is the largest factor in this area. Several studies have found a significant relationship between postpartum depression and marital conflict (O'Hara et al., 1983; Field et al., 1985; Paykel et al., 1980). Not enough perceived support from a woman's social network can be confusing and frustrating, especially in the midst of great transition. This area will be discussed in greater detail in the next section focusing on the theoretical perspectives of social support.

There are many conflicting feelings at this period in a woman's life. "Many women feel especially guilty about having depressive feelings at a time when they believe they should be happy" (DSM-IV, 1994, 386) We have discussed numerous

factors which contribute to postpartum depression; but, it is useful for researchers to look at the individual aspects of postpartum depression so that a comprehensive picture may be developed. With a deeper, more thorough understanding, society can better prevent and remedy this crippling phenomenon.

## Theoretical Perspectives on Social Support

The underlying framework or rationale in conducting this research is based on the model of social support and its benefits. We know that perceived effective instrumental support from family and friends is helpful in reducing the severity of postpartum depression. (O'Hara, 1986; Paykel et al., 1980; Logsdon et al., 1994; & Cutrona & Troutman, 1986). Becoming a mother is a very specific period in a women's life with its own unique needs. The underlying orientation is that positive relationships providing instrumental social support improve the emotional quality of life for others. "Individuals with good social support are less likely to react to stress with depression, anxiety, and health problems" (Lahey, 1989,474).

A popular theoretical framework is that social support facilitates the maintenance of self-esteem in times of stress (Cohen & McKay, 1984). Thus, because one feels supported, the individual is able to employ adaptive coping mechanisms of their own. Bandura (1982) proposed the theory of self-efficacy relating to social support. People with low self-efficacy have lower expectations of themselves in times of stress, and in such occasions tend to attribute the cause of failures to an internal locus of control. Social support in this framework is seen to bolster the support a woman acknowledges and provides for herself.

This relates to a connected perspective which is proposed by Hobfoll et al. (1990) as the Conservation of Resources theory of social support. Social support assists

the individual on two levels: by broadening the pool of potential and available resources, and by reinforcing resources which have been depleted by external circumstances. This concept reveals an important point, in that the large support network does not automatically equate large support. “Thus, quality of support received may need to be distinguished from the amount or quantity of support given. Other important distinctions can be made between different types of support received (i.e., instrumental vs. emotional) and between different providers of support (e.g., friends vs. family)” (Collins et al., 1993, 1244).

A third theoretical framework is that of the buffering protection social support provides. Consider the metaphor of an explosion: a father would shield his child from the flying debris, protecting her from direct injury, and from the indirect trauma of the situation — this protection or buffer is seen as the role of social support. The stress-buffering model of social support holds that when stressful life events occur, individuals who have adequate support resources are able to mobilize these resource to effectively meet the challenges posed by the stress (Cobb, 1976).

A supportive spouse and strong marital relationship is one of significant importance in this area. Boyce et al. (1991) found that women with spouses who provided low care or were overly controlling significantly increased the risk for postpartum depression. Perceived lack of help from one’s husband had been correlated as well (Paykel et al., 1980). A spouse's depressive disorders also correlated with a higher incidence of postpartum depression for women receiving less support from their husbands (Zelkowitz & Milet, 1996). It seems that the husband is the most important person in the woman’s support network at the time of pregnancy (Norbeck & Anderson, 1989).

Other members of a woman’s support network are also important during the

postpartum. The lack of a close confidante other than her husband (Paykel et al., 1980), and a lack of close family members living nearby (Gorden et al., 1965) are correlated with postpartum depression. Kumar and Robson (1984) found that conflict between the woman and her mother is also associated with postpartum depression. Logsdon et al. (1994) support the claim that when the desired type or amount of social support is not received, depression is likely to increase. Logsdon et al. (1997) found that only one third of the women were satisfied with the support that had been provided in pregnancy and the postpartum. Interestingly, the presence of a supportive companion or doula during labour dramatically reduced the length of labour and complications (Kennell, et al., 1991). Expectations of who or how the support network with actually provide support to the woman seems important as well as the varied membership of the network.

Doula Definition and Background

This study will be looking at the influence of a very particular type of social support, through investigating how the services of a doula affect postpartum depression. The word, *doula*, comes from the Greek, and denoted the most important female slave or servant in an ancient Greek household, the servant who probably helped the woman of the house through her childbearing (Doulas, 1998, March 15). Today, "A doula is a woman trained in labor assistance and postpartum care who supports mothers and their families through the complex emotional and physical transitions of pregnancy, labor, delivery, and newborn care" (Doula, 1998, March 15).

The role of doulas in present day North America was born out of the medicization of the labour and birth process. When this natural occurrence was taken from the setting of the home to the environment of the hospital after World War I, important changes took place. Women were able to receive immediate medical care to

decrease complications and to take advantage of medications for pain relief (Klaus & Klaus, 1995). "One unfortunate consequence of this move was that a mainstay of home birth—emotional one-on-one support by skilled women throughout the entire labor—was lost. It was only many years later that the loss of this support was recognized to be a mistake" (Klaus & Klaus, 1995, 12). "Today's maternity care is provided by unfamiliar caregivers and nurses. Obstetric care relies on technology and can be complex and confusing, so parents are once again turning for help to those with experience and perspective" (Douglas College, 1998). Thus, the missing link between the labouring woman and her medical caregivers—a trained woman to tend to the emotional needs of the new mother—is being recognized, and women are turning to doulas to bridge the gap.

It is important to note how the doula's role is unique in the birth experience. A doula's presence is not intended to replace that of the labouring woman's husband or labour partner, rather the doula's role is to enhance this relationship. The birth experience is a joyous event; yet, for the first-time mother and her partner it is one which can produce fear, anxiety, and a roller coaster of emotions. Most labour partners want desperately to assist the mother through this experience, but in most cases are confronted by overwhelming new emotions that obscure ones objectivity; being a source of calm and collected support is a daunting task. He may have some of the same fears as the labouring woman, however employing the role of "helper" and "protector" may prevent him from voicing these concerns for fear of adding to the anxiety of his wife or partner. This can be a very lonely and anxiety producing position to find oneself in. A doula's presence is a buffer against these feelings. "A doula provides nurturing, helpful, and objective support so that the family member chosen to be present is not alone in supporting the woman through labor" (Klaus & Klaus, 1995). The doula can assist the

labour partner in tasks which will provide comfort and safety to the labouring woman, providing ideas the couple may find difficult to formulate in the midst of labour. The security of knowing someone else is supporting the labour partner often allows the labouring woman to express her true needs, allowing for a more relaxed, intimate, and connecting experience than if the couple were left to manage the labour alone.

The doula's role also differs from that of doctors, nurses, and midwives. The doula is present to primarily attend to the emotional needs of couples, not to their medical needs. The type of support provided by doulas is semi-professional, working in conjunction with professionals in the medical community. Through her training, the doula is knowledgeable regarding the medical process of labour and interventions enabling her to provide information to the couple, however she does not make any medical decisions or assist with the actual delivery of the baby. The doula is also employed by the couple, not a hospital or a health management organization. She does not have any other patients she needs to attend to in rooms on the ward, or work a specified shift and leave the labouring mother in the care of another nurse or doctor who must establish a relationship all over again. The doula is someone the labouring woman has chosen in advance to support her and her labour partner through this experience, a choice which she does not have about the nurses who will primarily care for her medical needs. Thus the doula works for the couple, and is under their control. A doula fills an important and unique role in the labour and delivery support team.

After establishing the unique role in emotional support the doula plays in the birth experience, it is important to examine how this is practically played out in the doula-couple relationship. This relationship typically starts during the last several months before delivery of the baby, by addressing the expectant mother's questions and concerns regarding the labour and delivery process, developing a birth plan, and

exploring the hopes and dreams of the mother-to-be and partner for this exciting life event through scheduled meetings. The doula recognizes birth as a key life experience and strives to preserve the memory of this event for the mother-to-be and her partner. Once labour commences, doulas are emotionally supportive by being physically present during the entire labour process. They provide "emotional support, practical comfort measures, an objective viewpoint, and information to aid in decision making" (Doulas, 1998, March 15) during labour. Doulas encourage women throughout her birthing, by complimenting her efforts and the care provided by the women's partner and birth attendants (Douglas Collage, 1998). "Unlike other 'labor coaches' doulas do not prescribe any set breathing pattern or labor regimen. Instead of using the patterned breathing techniques…doulas create an emotional 'holding environment' for the mother, encouraging her to allow her own body to tell her what may be best at various times during labor" (Klaus & Klaus, 1995,15). The doulas provide an emotional safety by advocating for the labouring woman's needs through the facilitation of communication between her, her partner, and medical staff. Underlying the framework of their role, doulas provide a quiet reassurance which empowers the woman throughout this experience. The doula stays after the birth for as long as the woman and her partner need to feel comfortable, to answer questions and assist with breastfeeding. Typically the day after the birth, the doula, new mother, and partner meet together to look back at the experience and to talk about the process. "A doula is constantly aware that the couple will carry the memory of this experience throughout their lives" (Klaus & Klaus, 1995, 15). In the weeks following the birth, the new mother can contact her doula regarding such areas as physical changes in her body and breastfeeding, which help to assist the new mother in the early postpartum period as her life makes so many transitions at this time.

There have been limited studies on the effect of doulas as labour coaches and the positive effects on birth outcomes (Hodnett and Osborn, 1989). There is however, very limited research on the benefits of a doula in the postpartum. Klaus et al. (1993) report that from their research of six randomized trials studying the effect of a doula's presence during labour, the obstetrical outcomes showed a decrease in the following; cesarean sections by 50%, length of labour by 25%, oxytocin use by 40%, pain medications by 30%, use of forceps by 30%, and epidurals by 60%. These results are echoed in the trial of Kennell & McGrath (1993), which saw a significantly lower cesarean section rate, fewer requests for epidurals, and a lower frequency of forceps deliveries than control group. Thorton and Lilford (1994) report through meta-analysis that of three components of the active management of labour; continuous emotional support, oxytocin, and amniotomy, that only the continuous emotional support was significant in decreasing the rate of cesarean sections and instrumentally assisted vaginal delivery. Clearly, the support of a doula is significantly positive for birth outcomes.

In the postpartum, there is limited research on how the doula's support is effective. Hofmeyer et al. (1991) report that women who had the support of a doula compared with those who did not, had less anxiety, higher levels of self-esteem, and were more comfortable with their baby at six weeks postpartum. The bond with the baby seemed stronger as it took the doula supported mothers only 2.9 days on average to develop a relationship with her baby as compared to the control group who took 9.8 days. Lindstrom a doula and childbirth educator adds that "when a woman has a good birth experience, it increases her sense of self esteem and feeling of self worth. There is nothing more empowering to any woman, regardless of age or background." (Community Action Program for Children, 1996, 2). "With such help, parents can capture the special moments and priceless experience of their own unique childbirth.

This in turn becomes the foundation for strong attachment as the new family comes into being" (Klaus et al., 1993). Home visitation services for at-risk women during the postpartum period showed that the women reported increased social support and decreased psychological distress (Marcenko & Spence, 1994). Klaus and Klaus (1995) report another significant postpartum benefit to mothers which comes in the form of modeling. For women who did not particularity receive nurturing by their own mothers, the modeling of a doula; accepting, care and support, can help heal this longing as well as provide a model for mothering to their new babies. There is virtually no research however, on the benefits of this service during the first month of the postpartum period. This study seeks to fill this research void and discover the benefits of a professional doula, someone who is monetarily compensated to provide new mothers with this specialized social support during the postpartum period.

Protocol for this research is to confirm the hypothesis that using the services of a doula decreases the severity of postpartum depressive symptoms, and increases perceived effective social support. The research plan includes the intervention or treatment of approximately one half of the participants using the services of a doula, during the study's time frame; one month prior to delivery of the baby, during delivery, and in the subsequent month after having the baby. The Beck Depression Inventory will be used to determine the incidence and severity of depressive symptoms. The first observation (one month prior to delivery) will be used as a baseline for each respective group mean as to the effectiveness of the intervention. The Postpartum Support Questionnaire will be used as a measure of the participants' perceived effectiveness of the social support network.

Hypothesis 1

Utilizing the services of a doula decreases the severity of postpartum depressive symptoms.

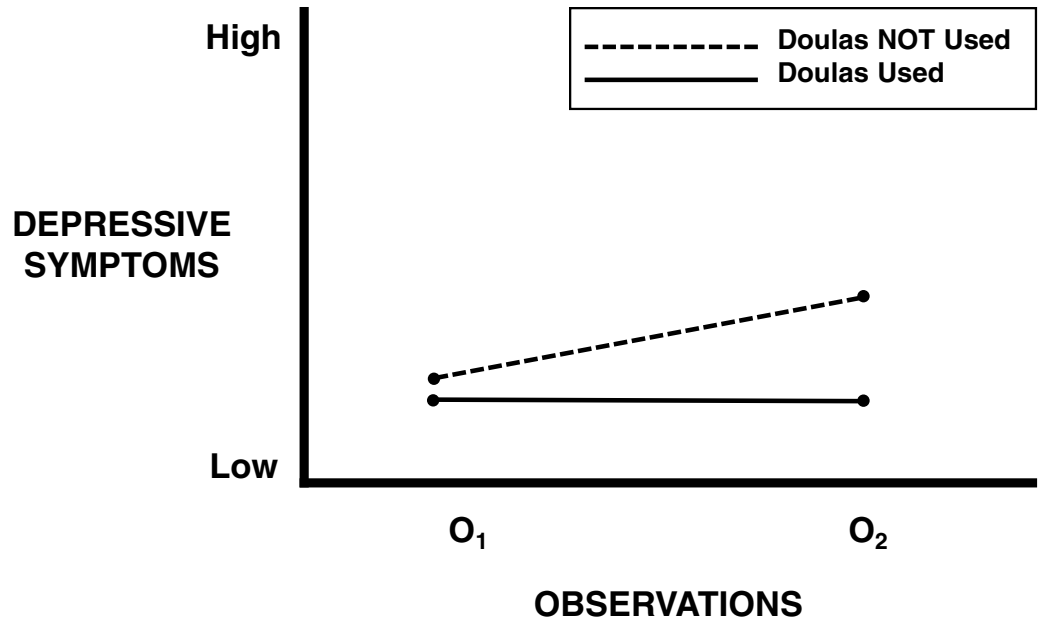


Figure 1.

A Graphical Representation of Hypothesis 1

Hypothesis 2

Utilizing the services of a doula increases perceived effective social support.

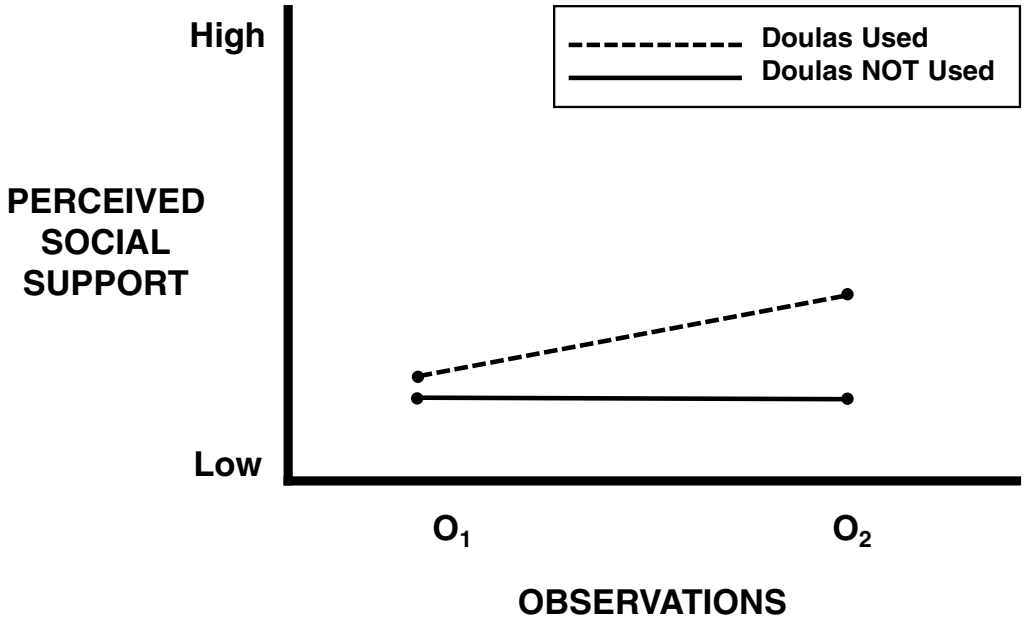


Figure 2.

A Graphical Representation of Hypothesis 2

The research plan is psychosocial in its inquiry. The fundamental research question examines the role that professional social support plays in the lives of first time mothers. Specifically, to study how these individuals assist the women into making a successful transition to motherhood. Answers to questions such as this one have a profound impact on all of us, and plays a significant part in our development As individuals and as a society.

# CHAPTER 3

## METHODOLOGY

### Design

The study is a quasi-experimental design as follows:

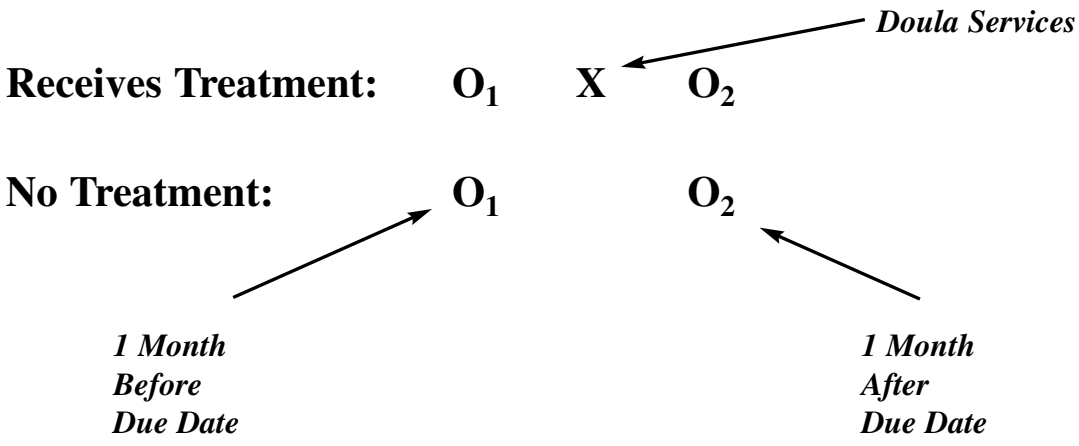


Figure 3.

Experimental Design

Measures will be taken at two observations points: 4 weeks prior to due date and 4 weeks after delivery. The research design employs a mixed design comprising 2 between-group measures (services of doulas or no doula services) and 2 within-group measures (observations points 1 and 2). The independent variable is that of the support received from the doula services. The first dependent variable is the social support received from the participants' social support network. The second dependent variable is the level of postpartum depressive symptoms.

### Participants

A sample of 37 primiparous married women in varied socio-economic status

(yearly household earnings of below $20,000 to over $100,000), aged 20–43 agreed to volunteer in the study. All participants must have completed high school, and not had any serious medical complications during pregnancy. Sixteen participants received the services of a doula while twenty-one received no doula services. The participants were recruited from prenatal classes, pregnancy exercise classes, local and national doula services, and via advertisement. Because participants were not randomly assigned, steps were taken to reduce sampling bias. Primiparous women were chosen to eliminate the factors of experience in childbirth and having to care for other children during this time. Only married participants were used as the research on social support and postpartum depression suggests that the spouse is crucial during the pregnancy and the postpartum. Additionally, the time 1 observation is used as a baseline verification of the equality of the control and experimental groups.

### Beck Depression Inventory

Two instruments were utilized for this study. The Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was used to measure the level of depressive symptomatology at each observation point, during pregnancy and in the postpartum period. This instrument has been shown to have good psychometric properties and has shown reliability in previous research measuring postpartum depression (Cutrona, 1983; O'Hara et al., 1984). Beck (1996) in her meta-analysis of predictors of postpartum depression states that the BDI was used in 11 of the 26 investigated studies on prenatal depression as it related to postpartum depression.

### Postpartum Support Questionnaire

The second instrument to be used is the Postpartum Support Questionnaire

(PSQ: Logsdon, Usui, Birkimer, & McBride, 1996). This instrument assesses four categories of support comprising informational, material, emotional, and comparison support. It is important to differentiate between the actual number of members in the new mother's social support network and the subjective amount of support she perceives to be receiving (O'Hara et al., 1983). For example, a new mother could have fifty people in her support network, however only three may actually be providing her with the support she needs. The PSQ was developed to measure the "perceived support specific to the postpartum situation…for use in pregnant and postpartum women" (Logsdon et al., 1996) to determine the effectiveness of support by those members close to the new mother in her social circle.

A qualitative component was added the PSQ to ascertain further information. After each question, there was a box in which to check "sources of support"; the options provided were "doula" and "others". This was added to provide further information as to whether or not the doula was supportive for that particular activity. As well it could be interpreted what items respondents marked in which the doula as well as others provided support detailing what areas overlapped and what areas were exclusive to each source of support. Of particular interest was differences in subscales for the various responses.

Telephone Interview

To supplement this study, qualitative data was obtained as well. A short fifteen minute telephone interview with participants was conducted after the last observation to determine what was the most beneficial type of social support in combating postpartum depressive symptoms. As well, these new mothers were asked, what types of social support were least helpful and fueled feelings of depression. Participants who used the

services of a doula were asked about their doula and their experience. These short interviews will be very beneficial in interpreting the quantitative results received and will give strength to the conclusions of this study.

Procedure

Participants were recruited from pre-natal classes, local and national doula services, prenatal exercise classes, and via advertisement near the end of their second trimester of pregnancy. Please refer to Appendix A for recruitment notices. They needed to meet the above outlined criteria of age, marital status, high school education, no children, and relatively problem-absent pregnancy to proceed with participation in the study. After they had given their consent to participate, they were given the package of questionnaires and instructions on precisely how and when to fill them out. Please refer to Appendix B for consent form and Appendix C for questionnaire instructions. They were instructed to fill out the BDI and the PSQ at each observation point and return them promptly after each observation. This measure was taken to ensure that participants did not confer with their previous questionnaire answers for comparison. After receiving the last set of questionnaires, the participant was then called for a short telephone interview to gather qualitative data on her experiences of social support, depression, and her doula. Please refer to Appendix E for interview questions. The process of data collection covered an approximate three month period in the participants' lives.

# CHAPTER 4

## RESULTS

This chapter will outline three areas: 1) the demographics of each group, 2) the quantitative results of the two questionnaires, and 3) the qualitative data of the added question to the PSQ along with the telephone interview. Firstly, the demographic information will examine how the experimental and control groups compare to one another. This section includes age, annual household income, highest level of education completed, ethnicity, and religious affiliation. Secondly, the quantitative analysis will explore the means and standard deviations of the BDI and the PSQ at time one and time two, along with correlations between these two questionnaires. This section will then address Hypothesis 1 through a *t*-test comparison of the BDI scores of the experimental and control groups. Hypothesis 2 will be addressed by *t*-tests and by focusing on the discrepancy subscales for the PSQ. Thirdly, the qualitative data of this study will be explored. The additional question on the PSQ will be explored for the doula's role in tasks, followed by the results from the telephone interview.

### Sample Demographics

The sample demographic information was obtained by the participants responding to the Participant Information Form. Please refer to Appendix D. For an overview of the demographic information on this sample, please refer to Table 1. All demographic bar graphs are shown in Appendix F.

Table 1

Demographic Means, Standard Deviations, and Frequencies

| | Doula Group (N=16) | | | No Doula Group (N=21) | | |
|---|---|---|---|---|---|---|
| Variable | M | SD | | M | SD | |
| Age | 30.2 | 6.8 | | 29.1 | 3.9 | |
| Income[a] | 4.8 | 1.4 | | 4.4 | 1.7 | |
| Education[b] | 4.6 | 1.6 | | 5.1 | 1.5 | |
| | Frequency | # | % | Frequency | # | % |
| Ethnicity | Caucasian | 16 | 100 | Caucasian | 19 | 90 |
| | | | | Asian | 2 | 10 |
| Religion | Protestant | 7 | 44 | Protestant | 17 | 81 |
| | Other | 6 | 38 | Other | 4 | 19 |
| | Catholic | 3 | 19 | | | |

[a]4= $40, 000–$50, 000 Annual Household Income,
5= $50, 000–$75, 000 Annual Household Income

[b]4= College/Technical Diploma,
5= Some University Education,
6= University Degree

Age

The ages of the entire sample of 37 participants range from 21 to 43. The reported mean age for the doula group is 30.20 with a standard deviation of 6.76, a mode of 24, median of 30.10, and a range of 22. The no doula group reported a mean of age 29.10 with a standard deviation of 3.88; mode of 28; median of 28; and a range of 13. The means of the groups are very similar pointing to a congruency in comparison. One note, however, is the difference in the range of the two groups, which is also reflected in the difference in standard deviation. The doula group has both the youngest and oldest participants. As well, the oldest participants in the no doula group are age 35, while the oldest member of the doula group is 43.

Annual Household Income

The annual household income of the entire sample of 37 participants range from below $20, 000 to above $100, 000. The reported mean annual household income is 4.81 with "4" representing the category $40, 000–$50, 000 and "5" representing $50, 000–$75, 000 for the doula group and a standard deviation of 1.38. Fifty percent of the doulas reported that their incomes were in the $50, 000–$75, 000 range. The doula group has the lowest income with one participant noting an annual household income below the $20, 000 mark. The no doula group reported a mean annual household income of 4.43 with "4" representing the category $40, 000–$50, 000 and "5" representing $50, 000–$75, 000 and a standard deviation of 1.69. The means of the groups are very similar pointing to a congruency in comparison. This would dispute claims that doula services are merely a luxury item for people in the upper economic strata. Consider also that, on average, the cost for doula services is typically $400–$600 dollars—not an exorbitant fee. The doula group also boasts the lowest annual income,

further establishing that income does not play a determining role for individuals would hire a doula.

Highest Level of Education Completed

The highest level of education completed of the entire sample of 37 participants range from high school diploma to graduate degree. The reported mean for the doula group is 4.63 with "4" representing the category "college/technical diploma", and "5" representing "some university education" for the doula group with a standard deviation of 1.59. The doula group also displays a distribution on the normal curve, where the mode is some university education. The no doula group reported a mean of 5, with "5" representing "some university education" and "6" representing a "university degree". The standard deviation is 1.50. The mode is a "university degree" with almost fifty percent of the no doula group completing this level of education. The means of the groups are very similar pointing to a congruency in comparison. This would dispute claims that the doula group has more education and would therefore be more interested in or informed about the specialized service of a doula; in fact, education seems to have no significant effect as to whether or not a woman chooses to avail herself of doula services. Overall, the sample is well educated—higher than the general population—but, the groups in this study are comparable.

Ethnicity

The two groups are similar, however this was due only to the fact that there was not a high degree of breath in this category. The doula group was exclusively Caucasian, with all 16 participants selecting this option. In the no doula group, 19 participants or 90.48% chose Caucasian, while 2 participants or 9.52% were of Asian

descent. Although these groups are comparable, it is unfortunate that these ethnicities do not reflect the generalized Canadian population. A replication of this study should address this issue, by reflecting the ethnically diverse population at large.

Religious Affiliation

The results show that of the doula group, 7 participants or 43.75% selected "Protestant"; 6 participants or 37.50% chose "other"; and 3 participants making 18.75% marked "Catholic". The no doula group reported a 80.95% "Protestant" rate with 17 participants choosing this option; 4 participants or 19.05 % selected "other". This was another area, where although the groups in the study were somewhat comparable, however, the results do not reflect the larger Canadian population. In the future, it may be beneficial to let the participant freely answer this question instead of requesting they choose predetermined categories. This may allow the participants to more freely express their religious beliefs rather than confining them to a single broad-category option, as a substantial number marked "other" as their selection.

Descriptive Information

Time 1 descriptive information can be referred to on Table 2. There are some interesting observations at time 1. The emotional support subscale on the PSQ correlated significantly at the .01 level with all other seven subscales, and correlated negatively (as expected) with the BDI. The only other negative correlation was between the BDI and the comparison support subscale. The highest correlation was between the emotional support and material support subscales at .850, significant at the .01 level. Material importance subscale and comparison importance subscale correlated significantly with five of the seven PSQ subscales at the .01 level. The emotional

Table 2

Time 1 Correlation Matrix, Reliability Coefficients, Means, and Standard Deviations for All BDI and PSQ Subscales

| Pearson Correlation | BDI | PSQ-EI | PSQ-ES | PSQ-MI | PSQ-MS | PSQ-II | PSQ-IS | PSQ-CI | PSQ-CS |
|---|---|---|---|---|---|---|---|---|---|
| BDI | 1.00 | | | | | | | | |
| PSQ-EI | .34* | 1.00 | | | | | | | |
| PSQ-ES | -.04 | .42** | 1.00 | | | | | | |
| PSQ-MI | .31 | .79** | .44** | 1.00 | | | | | |
| PSQ-MS | -.05 | .35* | .88** | .45** | 1.00 | | | | |
| PSQ-II | .22 | .59** | .46** | .66** | .32 | 1.00 | | | |
| PSQ-IS | .10 | .27 | .85** | .36** | .87** | .42* | 1.00 | | |
| PSQ-CI | .04 | .56** | .42** | .50** | .36 | .61** | .39 | 1.00 | |
| PSQ-CS | -.01 | .20 | .74** | .22 | .78** | .25 | .85** | .51** | 1.00 |
| Alpha Coefficient | .86 | .90 | .90 | .87 | .90 | .88 | .93 | .70 | .81 |
| Mean | 6.4 | 4.5 | 4.4 | 4.3 | 4.1 | 4.3 | 4.1 | 4.0 | 4.2 |
| Standard Deviation | 4.7 | 1.4 | 1.4 | 1.5 | 1.7 | 1.5 | 1.8 | 1.3 | 1.6 |

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

BDI= Beck Depression Inventory
PSQ-EI= Postpartum Support Questionnaire - Emotional Importance Subscale
PSQ-ES= Postpartum Support Questionnaire - Emotional Support Subscale
PSQ-MI= Postpartum Support Questionnaire - Material Importance Subscale
PSQ-MS= Postpartum Support Questionnaire - Material Support Subscale
PSQ-II= Postpartum Support Questionnaire - Informational Importance Subscale
PSQ-IS= Postpartum Support Questionnaire - Informational Support Subscale
PSQ-CI= Postpartum Support Questionnaire - Comparison Importance Subscale
PSQ-CS= Postpartum Support Questionnaire - Comparison Support Subscale

importance subscale correlated significantly with the BDI at the .05 level. This tends to show that the emotional importance participants placed on subscale items of the PSQ were revealed in the BDI as perhaps items which are red flags for depressive symptoms.

Time 2 descriptive information can be referred to on Table 3. There are some interesting observations at time 2. Unlike time 1, in time 2 the BDI correlated negatively with all of the support subscales of the PSQ; note that the lack of support received may have contributed to a higher BDI score. The highest correlation was between the emotional importance and material importance subscales at .836, significant at the .01 level. This is interesting as the two subscales that were the highest correlation in time 1 were emotional support and material support. Participants have placed a higher degree of value on the importance subscales rather than the actual support received. Informational importance subscale correlated significantly with five of the seven PSQ subscales at the .01 level. The emotional importance and material importance subscale correlated significantly with the BDI at the .01 level; comparison importance at the .05 level.

The BDI for time 1 and time 2 had a Pearson correlation of .530 which significantly correlates at the .01 level. This would indicate that there is a good stability coefficient in the study for these measures at each observation point. The change in importance discrepancy score for the PSQ and the change in support discrepancy score correlates significantly at .46 at the .01 level. This indicates that there is good internal consistency for the PSQ measure of these discrepancy scores that encompass time 1 and time 2 responses.

Table 3

Time 2 Correlation Matrix, Reliability Coefficients, Means, and Standard Deviations for All BDI and PSQ Subscales

| Pearson Correlation | BDI | PSQ-EI | PSQ-ES | PSQ-MI | PSQ-MS | PSQ-II | PSQ-IS | PSQ-CI | PSQ-CS |
|---|---|---|---|---|---|---|---|---|---|
| BDI | 1.00 | | | | | | | | |
| PSQ-EI | .56** | 1.00 | | | | | | | |
| PSQ-ES | -.15 | .39* | 1.00 | | | | | | |
| PSQ-MI | .58** | .84** | .38* | 1.00 | | | | | |
| PSQ-MS | -.31 | .14 | .80** | .23 | 1.00 | | | | |
| PSQ-II | .25 | .65** | .49** | .74** | .32 | 1.00 | | | |
| PSQ-IS | -.11 | .31 | .76** | .41* | .64** | .59** | 1.00 | | |
| PSQ-CI | .40* | .62** | .25 | .56** | .14 | .53** | .31 | 1.00 | |
| PSQ-CS | -.00 | .24 | .65** | .25 | .64** | .28 | .64** | .58** | 1.00 |
| Alpha Coefficient | .91 | .93 | .90 | .89 | .86 | .81 | .88 | .87 | .87 |
| Mean | 7.9 | 4.7 | 4.3 | 4.5 | 4.1 | 4.4 | 4.1 | 4.6 | 4.6 |
| Standard Deviation | 6.9 | 1.6 | 1.4 | 1.7 | 1.5 | 1.7 | 1.4 | 1.6 | 1.6 |

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

BDI= Beck Depression Inventory
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Hypothesis 1

Hypothesis 1 stated that utilizing the services of a doula decreases the severity of postpartum depressive symptoms. The BDI was used to measure depressive symptoms. This hypothesis has not been confirmed. The results show did not show a significant mean difference in depressive symptoms at the 95% confidence level ( $t$ (1) = 3.06, $p$ = .089) The power for this test was at .40, low due to the small sample size (n=37). However the effect size was medium, $d$ = .08. This indicates that there is a trend towards a medium effect size. If this effect size was replicated, the results of the studies combined would be significant at conventional levels.

Hypothesis 2

Hypothesis 2 stating that utilizing the services of a doula increases perceived effective social support has been partially confirmed with this study. Although there are no differences between the groups in the perceived amount of support they received, the importance that the participants attached to the support increased for the doula group.

A *t*-test was performed on the PSQ for the discrepancy score of change in support. The results of did not show a significance level below the standard $\alpha = .05$ ( $t$ (31) = .094, $p$ = .926). The groups do not seem to be significantly different on this measure. Boxplots show extreme scores for both groups indicating that support is varied in both groups with no trends suggesting more support for the doula group.

A *t*-test was performed on the PSQ for the discrepancy score of change in importance. The results of are significant at the 95% confidence level ( $t$ (25) = -2.87, $p$ = .047). The doula group does significantly show more value on the importance of items than the no doula group after delivery. By having a doula, these participants recognized the importance of support and had changed their value of it after delivery.

Collaterally, by valuing the importance, the doula group may now have had higher expectations to receive and acknowledge support, thus not showing any significant difference in the support received from the change in support score above.

Regarding the reliability of the PSQ subscales alphas ranged from .70 to .90 for time 1 and .81 to .93 at time 2. In comparing these numbers to the initial work of Logsdon et al. (1996)—three studies with similar sample sizes—alphas ranged from .47 to .92 for time 1 and .64 to .95 on time 2 subscale measures. The high levels of relability of the present study increases confidence in the validity of the PSQ.

Qualitative Data

A qualitative component was added to the PSQ to ascertain further information. After each question there were two boxes pertaining to "sources of support" to be checked if applicable: "doula" and "others". This was added to provide further information as to whether or not the doula was supportive for that particular activity. This provided interesting results in that the responses indicated specific areas where sources of support overlapped or mutually exclusive (or absent altogether). Of particular interest were differences in subscales for the various responses. Please refer to Table 4 for the frequency table for time 1, and Table 5 for the frequency table for time 2.

The results are informative. Looking at the subscales, it is clear that they are grouped together, especially at time1. For time 1 the subscales in descending order for doula support are: informational, comparison, emotional, and material. Providing information was where the doula's support was played out according to the PSQ. Every item from the informational subscale was represented. Informational support also shows a great deal of overlap, where participants received information from their doulas

Table 4

Sources of Support - PSQ - Frequency Table Time 1

| | PARTICIPANTS WHO CHOSE "DOULA" | |
|---|---|---|
| **Subscale** | **# of Items Represented from Subscale Total** | **Average % of Doula Support Per Item** |
| Information | 9/9 | 51% |
| Comparison | 5/5 | 33% |
| Emotional | 9/12 | 24% |
| Material | 3/8 | 8% |

Table 5

Sources of Support - PSQ - Frequency Table Time 2

| | PARTICIPANTS WHO CHOSE "DOULA" | |
|---|---|---|
| **Subscale** | **# of Items Represented from Subscale Total** | **Average % of Doula Support Per Item** |
| Information | 9/9 | 43% |
| Comparison | 5/5 | 34% |
| Emotional | 11/12 | 28% |
| Material | 1/8 | 6% |

and from others. Material support, tasks such as cooking meals or help with laundry, rated lowest by only receiving 3 of the 8 subscale items in which doulas were supportive.

For time 2, the subscales are not as clustered although there is a trend toward the doula's support in descending order as: informational, emotional, comparison, and material. The first two items for most doula support remain the same at both observations points. The highest rated PSQ item was, "Need to have information on breastfeeding" which received 75% of the respondents stating their doula had provided support in this area. This is an important finding when coupled with the results from the telephone interview which will be discusses in the next section. The second highest rated PSQ item in which doulas were supportive was for the item which states, "Need to have information on taking care of my own body as it heals following the birth of my baby". This is an important finding as it was rated second highest both before and after the baby was born. It is clear that this concern was important for the participants—even having this knowledge one month before the baby was born—so they could mentally prepare themselves for what was to come: confidence in how to take care of one's own body in addition to taking care of a new baby. The material support fell to only one response for doula support in the time 2 observation, the area in which doulas provide the least amount of support.

Telephone Interview

A short fifteen-minute telephone interview with participants was conducted after the last observation to determine what was the most beneficial type of social support in combating postpartum depressive symptoms. As well, these new mothers were asked what types of social support were least helpful and fueled feelings of depression.

Table 6

Number, Percent, and Responses Indicating the Source and Type of Highly Effective Social Support as Reported Via Telephone Interview

**Telephone Interview Question # 1: What was the most helpful social support you have received during your pregnancy and after delivery? Why?**

**SOURCE OF SUPPORT**

| No Doula Group | | | Doula Group | | |
|---|---|---|---|---|---|
| **# of Respondents** | **%* of Respondents** | **Responses** | **# of Respondents** | **%* of Respondents** | **Responses** |
| 9 | 43 | Husband | 4 | 25 | Husband |
| 8 | 31 | Family | 1 | 6 | Family |
| 6 | 29 | Friends | 4 | 25 | Friends |
| 5 | 24 | Public Health Nurse | 3 | 19 | Public Health Nurse |
| 3 | 14 | Mother | 1 | 6 | Mother |
| 3 | 14 | Church | 8 | 50 | Doula |
| 2 | 10 | Physician | 3 | 19 | Mother-In-Law |
| | | | 1 | 6 | Mom and Tots Group |

**TYPE OF SUPPORT**

| No Doula Group | | | Doula Group | | |
|---|---|---|---|---|---|
| **# of Respondents** | **%* of Respondents** | **Responses** | **# of Respondents** | **%* of Respondents** | **Responses** |
| 13 | 62 | Emotional Support | 9 | 56 | Emotional Support |
| 10 | 48 | Housework | 4 | 25 | Housework |
| 6 | 29 | Information | 7 | 44 | Information |
| 6 | 29 | Shared Experiences | 3 | 19 | Shared Experiences |
| 1 | 5 | Taking Care of the Baby | 3 | 19 | Labour Support |
| | | | 2 | 13 | Physical Presence |
| | | | 1 | 6 | Praying Together |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

Participants who used the services of a doula were asked about the doula and their experience with her. Please refer to Appendix E for a sample of both the doula group and no doula group telephone questionnaires.

Table 6 reports on the most helpful social support the participants had received during their pregnancy and after delivery. Participants revealed the relationship to the sources of support in their network and what type of support had provided. It is interesting to note the differences between the two groups. The doula group stated that their doula was the *most* helpful source in 50% of cases, while the no doula group obviously did not have this option. There is a difference in the husband's role as the no doula group reported him at 43% while the doula group only responded with 25%. Family support is also markedly different in these two groups with the no doula group receiving more support from their families.

The type of support is similar except a few important distinctions. The no doula group reported more support in housework, while the doula group reported more support in information. This information component adds strength to the doula's role in providing information found in the additional PSQ question. The doula group also reported labour support and physical presence (essential aspects of a doula's role) as being an important type of support they had received; this reporting is absent from the no doula group.

Table 7 outlines the results of what participants stated were any areas where the type of social support they had received was detrimental and why. This information is valuable for those who are involved with pregnant and new mothers, either in their social network or through professional support, in helping these people avoid pitfalls—situations where well-intentioned support is actually not supportive at all. The no doula group reported friends as the least supportive, in that they provided "tips" on how to

Table 7

Number, Percent, and Responses Stating Ineffective Social Support as Reported Via Telephone Interview

**Telephone Interview Question # 2: Was there any type of "social support" that was in fact not supportive? How so?**

| NO DOULA GROUP | | | DOULA GROUP | | |
|---|---|---|---|---|---|
| # of Respondents | %* of Respondents | Responses | # of Respondents | % of Respondents | Responses |
| 4 | 19 | Friends – Giving “tips” on how to care for my baby | 1 | 6 | Friends – Giving “tips” on how to care for my baby |
| 1 | 5 | Nurses – Were rude/judgmental | 3 | 19 | Nurses – Were rude/judgmental |
| 1 | 5 | Doctor – Created a lot of stress during delivery | 1 | 6 | Doctor – Did not answer my questions |
| 1 | 5 | Hospital Staff – Did not abide by my wishes | 1 | 6 | Hospital Staff – Not available during the night because they were too busy |
| 1 | 5 | Church/Family – Did not agree with our decision to have a home birth | 1 | 6 | Family – Did not provide as much support as I was expecting |
| 1 | 5 | Other Mothers – Comparing how good their baby is in contrast to mine | 1 | 6 | Mother-In-Law – Gave me more stress—was intruding during delivery |
| | | | 1 | 6 | Co-Workers – Gave “advice”, told horror stories, touched my stomach |
| | | | 1 | 6 | Lactation Consultant – No continuity of care, did not help with what I needed |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

care for the baby which were either unsolicited or held a judgment in their delivery. The subtext of such advice carries a disparaging commentary: I am right, you are wrong, and you must not be a very good parent. This was hurtful to the participants who reported the occurrence of belittling editorials, for the judgment of their friends undermined a level of trust in their relationships.

The doula group reported nurses as the least supportive stating that they were rude and judgmental. Unfortunately, some of these incidents were directly linked to the participants having a doula. It was surmised by some participants that the nurses felt that their position and authority were being threatened by the a doula's presence, and that the nurses therefore redirected some of that frustration back toward the participant. It seems that some hospital staff may not be aware of the a doula's role and perhaps mistakenly believe that the doula is there to essentially replace the role of the nurse, thus producing a type of professional rivalry. Many of the responses can be summarized as being given information or "support" when unsolicited, or not being provided with information and "support" when requested by participants.

Please consult Table 8 for the results of the most revealing differences between the doula group and no doula group as to the ways in which the doulas provide unique support. Question 3a asks the doula group about the three biggest ways in which their doula was helpful, while the no doula group in question 3b asks what the three biggest ways in which their primary support was helpful to them. The no doula group resoundingly stated that their husband was their primary support person at 91%; two participants chose their mother as their primary support. It is interesting to note how the doulas and the primary support person differ in the support they provide. The doula group stated that labour support was the biggest support, receiving 63% of responses. Compare this to only 14% for the no doula group. The next three responses from the

Table 8

Number, Percent, and Responses Indicating the Top Three Ways in Which the Doula or Primary Support Person Provided Effective Social Support as Reported Via Telephone Interview

**Telephone Interview Question # 3a: What were the three biggest ways in which your doula was helpful to you?**

**DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | Responses |
|---|---|---|
| 10 | 63 | Labour support |
| 9 | 56 | Provided information |
| 4 | 25 | Support for my husband—helping him know what to do |
| 4 | 25 | Provided comfort |
| 1 | 25 | Provide emotional support |
| 3 | 19 | Helped with decision-making |
| 2 | 13 | Answered my questions |
| 2 | 13 | Helped to fill in missing parts of my memory |
| 2 | 13 | Helped to create a birth plan |
| 2 | 13 | Provide practical support/Did things for me |
| 1 | 6 | Availability |
| 1 | 6 | Provided normative perspective—rather than chaotic perspective |
| 1 | 6 | Breastfeeding encouragement |
| 1 | 6 | Advocate at hospital |
| 1 | 6 | Shared experiences |
| 1 | 6 | Considered me to be the expert on my pregnancy |

**Telephone Interview Question # 3b: What were the three biggest ways in which your primary support person was helpful to you?**

**NO DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | Support Person Indicated |
|---|---|---|
| 19 | 91 | Husband |
| 2 | 10 | Mother |
| | | **Type of Support Indicated** |
| 18 | 86 | Housework/Errands |
| 13 | 62 | Emotional Support |
| 7 | 33 | Taking Care of Baby |
| 3 | 14 | Labour Support |
| 3 | 14 | Physical Presence |
| 3 | 14 | Shared Experiences |
| 2 | 10 | Wanting to Learn About Pregnancy and the Baby |
| 2 | 10 | Breastfeeding Encouragement |
| 1 | 5 | Husband Being Willing to Adjust His Schedule |
| 1 | 5 | Supporting My Decisions During Pregnancy |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

doula group—provided information, support for my husband, and provided comfort—are absent from the no doula group. It is fascinating that one quarter of the participants stated that one of the biggest helps (provided by the doula) for *them* was actually in supporting *her husband* and helping him know what to do. Other important supportive tasks that the doula provided which were absent from the no doula group were: helped with decision-making, answered my questions, helped to fill in missing parts of my memory, helped to create a birth plan, provided normative perspective rather than a chaotic one, and an advocate at the hospital. These are crucial to understanding the unique role in which a doula provides support.

Table 9 outlines the number of meetings participants held with their doulas as well as what point their doula began attending labour. Almost half of the participants had several phone calls with their doulas throughout the time. The most common number of meetings with the doulas were five meetings and three meetings, in which 25% of respondents held each of these number. The highest number of meetings was nine, noted by one person. In terms of the point at which the doulas attended labour, 75% of respondents stated that their doula arrived during early labour. Several participants mentioned that their doulas came to their homes to assist with labour before going to the hospital; one participant was thankful that the doula came to the house because the doula was able to be supportive during the car ride to hospital, allowing her husband to concentrate on driving. Several other participants stated that the doula met them at the hospital and was with them from the point of admission through to after the delivery. One doula was unable to attend the labour, due to unexpectedly having to leave town for a funeral.

Table 10 provides the results of the of the telephone interview question asking the doula group to share information to expectant mothers on the experience of having a

Table 9

Number, Percent, and Responses Indicating Number of Meetings with Doula and Point at Which she Attended Labour as Reported Via Telephone Interview

**Telephone Interview # 4: How many meetings did you have with your doula?**

**DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | # of Meetings |
|---|---|---|
| 7 | 44 | Several phone calls |
| 4 | 25 | Five |
| 4 | 25 | Three |
| 3 | 19 | Two |
| 2 | 13 | Four |
| 1 | 6 | Nine |
| 1 | 6 | Seven |
| 1 | 6 | Six |

**Telephone Interview # 5: At what point did your doula begin attending your labour?**

**DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | Point of Attendance |
|---|---|---|
| 12 | 75 | Early Labour |
| 3 | 19 | Middle Labour |
| 1 | 6 | Did not attend labour—was out of town |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

Table 10

Number, Percent, and Responses Indicating the Experience of Having a Doula or Birth Experience in General Via Telephone Interview

**Telephone Interview Question # 6a: What would you want expecting mothers to know about the experience of having a doula?**

**DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | Response |
|---|---|---|
| 7 | 44 | Provides a special type of support—for you only |
| 7 | 44 | It's awesome, wouldn't do it any other way—worth the time and money |
| 6 | 38 | Husband said he couldn't have done it without doula/doula did not take away from my husband's presence |
| 5 | 31 | I don't know what I would have done without her/I wish everyone could have a doula |
| 4 | 25 | Doula is an advocate at the hospital |
| 3 | 19 | You are able to make better decisions because you have more information |
| 2 | 13 | There is always someone you know you can call |
| 2 | 13 | Things were in control during labour |
| 2 | 13 | The doula knows what you are going through |
| 2 | 13 | The preparation with the doula empowered me |
| 1 | 6 | The doula provides safety |
| 1 | 6 | There are after care doulas to help around the house |
| 1 | 6 | You need to find the right personality of doula to match with your own |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

Table 10 Continued

**Telephone Interview Question # 7b: What would you want expecting mothers to know about your experience?**

**NO DOULA GROUP ONLY**

| # of Respondents | %* of Respondents | Response |
|---|---|---|
| 5 | 24 | Accept help when people offer |
| 4 | 19 | Breastfeeding is not that easy—there are places to get help |
| 3 | 14 | Ask lots of questions |
| 3 | 14 | It's OK if you don't know everything—you'll learn |
| 3 | 14 | Motherhood is not as easy as I thought it would be |
| 3 | 14 | You need to learn to give up control over things |
| 3 | 14 | Remember to enjoy all of the precious moments of motherhood |
| 3 | 14 | Have a support team advocate for you—know your rights at the hospital |
| 2 | 10 | Remember that each person's experience is unique |
| 2 | 10 | Think of labour as work, not pain |
| 2 | 10 | Let others know labour can be a positive experience |
| 2 | 10 | It's difficult to learn that I need to be needed by my baby |
| 2 | 10 | Don't get concerned about how your body looks/take good care of your physical health |
| 2 | 10 | I would have wanted to be prepared more for after the baby was born—saw delivery as end point |
| 1 | 5 | Take a prenatal and childcare class |
| 1 | 5 | Have a camera with you in the delivery room |
| 1 | 5 | Churches are very supportive |
| 1 | 5 | I would have put the baby in the crib to sleep from the beginning |
| 1 | 5 | Integrating faith into experience was important |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

doula, while the no doula provides advice on their experience in general. The results show that 44% of respondents acknowledge that the doula provides a special type of support, one which is unique in comparison to that which is provided by other relationships. 44% of respondents stated that it was an *awesome* experience and that they wouldn't have wanted to re-live the experience without a doula present. Again support for the husband is highlighted when 38% of the respondents state that their husbands said they couldn't have managed through the labour and delivery experience without the aid of the doula. Many of the following responses highlight the information and specialized knowledge that the doula brings to the couple through the labour and delivery process, such as: being an advocate at the hospital, providing information for decision-making, control during labour, birth preparation, empowerment, and specialized support.

Table 10 also outlines the responses of the no doula group to the question which asks, "What would you want expecting mothers to know about your experience?". These responses are important as well, and may highlight particular areas in which new mothers are looking for support. Twenty-four percent of the participants responded that new mothers should be encouraged to accept help when people offer it; in effect, to take advantage of the social support network they already have available to them.

Participants answered that breastfeeding is not that easy at 19%, and that there are places to get help. This was one of the more troubling responses. Several participants spoke with heartache of the trouble they had with this task, being expected to know what to do, feeling uncomfortable to ask questions, and feeling unsuccessful as a mother with multiple attempts to learn this process. Some mothers decided that the task was too difficult and made the decision to bottle feed. One participant despairingly told of her quest to have her questions answered in this area, and said that she had asked

no less than 10 people in her support network for help until she obtained the information she needed. This area cannot be underscored enough. In the PSQ at both observation points the doula group noted this is the area where the greatest number of participants received support from their doula. Other responses on this question encouraged expectant mothers to: ask lots of questions; enjoy the precious moments of motherhood; take care of your physical health; and to be more prepared for after delivery, as some saw delivery as the end of pregnancy—instead of the beginning of parenting.

Table 11 outlines what the participants felt was the most beneficial aspect to being involved in this study. The overwhelming answer to this question was that it provided the participants with an opportunity to reflect on their experience. This was stated by 50% of the doula group and 38% of the no doula group. Other important areas for both groups included: to realize what the participants were feeling, know what areas of support to be aware of, and to acknowledge how much support the participants actually had during their experience. The doula group did have more diverse responses, and this included 19% of participants having had an opportunity to remember why their doula was so helpful, and to encourage the use of doulas. One answer that differed for the no doula group was that one participant stated that a doula would be beneficial to have for her next delivery.

Table 12 outlines some excellent feedback on how the participants viewed the study and if there was anything they would have liked to change the study. This would be helpful to look at for replication purposes. Overall, it seems that the largest problem participants faced was with the PSQ. This was in large part due to the wording of some of the questions in that they were in the past tense for tasks that could only be accomplished after delivery; this made it difficult to answer them on the first observation. For example, “Need to have information on my baby’s hiccups (why the

Table 11

Number, Percent, and Responses Indicating the Benefits of Being Involved in This Study Via the Telephone Interview

**Telephone Interview Question # 8: What was the most beneficial aspect of being involved in this study?**

| NO DOULA GROUP | | | DOULA GROUP | | |
|---|---|---|---|---|---|
| # of Respondents | %* of Respondents | Response | # of Respondents | %* of Respondents | Response |
| 8 | 38 | Reflect on experience | 8 | 50 | Reflect on experience |
| 8 | 38 | Realized what I was feeling | 2 | 13 | Realized what I was feeling |
| 8 | 38 | Know what areas of support to be aware of | 2 | 13 | Know what areas of support to be aware of |
| 5 | 24 | See how much support I actually had | 5 | 31 | See how much support I actually had |
| 4 | 19 | Comparing differences in what was important before and after baby was born | 1 | 6 | Comparing differences in what was important before and after baby was born |
| 1 | 5 | Realized everyone's experience is different | 1 | 6 | Realized everyone's experience is different |
| 1 | 5 | Feel that a doula would be beneficial to have next time | 3 | 19 | Remembered why a doula was so helpful |
| | | | 1 | 6 | Realized how tied-in my emotions were to my baby's birth |
| | | | 1 | 6 | Recognized where the gaps in my support were |
| | | | 1 | 6 | Questions suggested a range of services doulas can provide |
| | | | 1 | 6 | No benefit |
| | | | 1 | 6 | To be involved in a study that will be beneficial to others |
| | | | 1 | 6 | To encourage the use of doulas |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

Table 12

Number, Percent, and Responses Indicating Changes For Future Studies Via the Telephone Interview

**Telephone Interview Question # 9: Was there anything you would change for future studies of this type?**

| NO DOULA GROUP | | | DOULA GROUP | | |
|---|---|---|---|---|---|
| # of Respondents | %* of Respondents | Response | # of Respondents | %* of Respondents | Response |
| 3 | 14 | Some questions weren't applicable before the baby was born | 2 | 13 | Some questions weren't applicable before the baby was born |
| 3 | 14 | Some questions were ambiguous | 1 | 6 | Some questions were ambiguous |
| 2 | 10 | Questions were too negative—make more positive questions | 2 | 13 | Questions were too negative—make more positive questions |
| 1 | 5 | Hard to remember to send second set of questionnaires | 1 | 6 | Hard to remember to send second set of questionnaires |
| 3 | 14 | Wasn't sure if I should answer what I expected or how I felt now on support questionnaire | 2 | 13 | Offering "doula" on the support questionnaire assumes that a doula actually provides all of those services |
| 3 | 14 | Scaled questions were difficult to gauge | 1 | 6 | Did not feel that I could answer "doula" on the support questionnaire as much as I would have liked to |
| 1 | 5 | Questions assumed people didn't have support | | | |
| 1 | 5 | Would have been helpful to compare results from first questionnaires | 1 | 6 | Would have liked more comment lines on questionnaires |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

baby hiccups and what to do)" was difficult to answer for time 1 because the baby was not yet born. This frustration was reflected in the responses, "some questions weren't applicable before the baby was born," and "some questions were ambiguous", and "wasn't sure if I should answer what I expected or how I felt now on support questionnaire". Other participants noted problems with the BDI, stating that "the questions were too negative," and that in future studies it would be helpful to "make more positive questions." Several participants noted that the question on the BDI which asked about suicidal ideation was not appropriate. One response which should be highlighted was from a doula group participant. She stated that she "did not feel that [she] could answer 'doula' on the support questionnaire as much as [she] would have liked to". This is an important point, as many of the ways in which the participants noted that the doulas were supportive to them—such as labour support, supporting their husbands, and birth preparation—are not reflected in the PSQ. It would seem that the ways in which the doulas are supportive are unique and may not be translated into statistically significant support on available instruments.

The last question of the telephone interview asked if the participants had any further comments regarding the study; refer to Table 13. There were limited responses for this question as many participants felt they had expressed their views in previous questions. The doula group can be summarized by stating that they appreciated research done on doulas and hoped this would make people more knowledgeable about the area. The no doula group stated that the spaces between the observation points 1 and 2 were well spaced, and that support from different resources is important; one participant acknowledged that "a doula would have been helpful, more so that [she] had thought beforehand". Clearly, doula involvement was an important part of the participants experience in this study.

Summary

Table 13

Number, Percent, and Responses Indicating Further Comments Regarding The Study Via the Telephone Interview

**Telephone Interview Question # 10: Do you have any further questions or comments regarding the study?**

| DOULA GROUP | | | NO DOULA GROUP | | |
|---|---|---|---|---|---|
| # of Respondents | %* of Respondents | Response | # of Respondents | %* of Respondents | Response |
| 1 | 6 | Most people do not know what a doula is—I want to make people more knowledgeable | 1 | 5 | A doula would have been helpful, more so than I had thought beforehand |
| 1 | 6 | I appreciate research done in this area | 1 | 5 | It is important to learn about different resources, public health nurses are a great support |
| | | | 1 | 5 | Four weeks before and after delivery was a good space between questionnaires |

*Total may exceed 100% as some respondents nominated more than one source or type of support.

The results of this section provide useful information on the role of doulas in the new mother's life. Firstly, the demographic information provided substantiation that these groups were comparable.

Secondly, the quantitative analysis explored Hypothesis 1 through a *t*-test comparison of the BDI scores of the experimental and control groups. Hypothesis 1 stating that utilizing the services of a doula decreases the severity of postpartum depressive symptoms has not been confirmed with this study. However, if this study was replicated several more times with a similar effect size finding, the results of the studies combined would be significant in nature to confirm this hypothesis. Hypothesis 2 was addressed by *t*-tests of the discrepancy subscales for the PSQ. Hypothesis 2 stating that utilizing the services of a doula increases perceived effective social support has been confirmed with this study. Although there are no differences between the groups in the amount of support they received, the importance attached to receiving the support increased for the doula group.

Thirdly, the qualitative data of this study was presented. The additional question on the PSQ showed that information was the subscale in which the doula provided the most support according to the PSQ. The telephone interview provided fascinating information regarding many areas. Particularly important in these results were the areas in which the doula provided a unique support unavailable to the no doula group, including the following areas: provided information; support for my husband; provided comfort; helped with decision-making; answered my questions; helped to fill in missing parts of my memory; helped to create a birth plan; provided normative perspective rather than a chaotic one; and, an advocate at the hospital.

# CHAPTER 5

# DISCUSSION

## Discussion of Hypotheses

Hypothesis 1 stating that utilizing the services of a doula decreases the severity of postpartum depressive symptoms has not been confirmed with this study. However, if this study was replicated several more times with a similar effect size finding, the results of the studies combined would be significant in nature to confirm this hypothesis.

Hypothesis 2 stating that utilizing the services of a doula increases perceived effective social support has been partially confirmed with this study. Although there are no differences between the groups in the amount of support they received, the importance that they receive the support increased for the doula group. By having a doula, these participants recognized the importance of support and had changed their value of it after delivery. Collaterally, by valuing the importance, the support received may have not met with the now higher importance, thus not showing any significance in the support received. Answers in the telephone interview bring up an important point, as many of the ways in which the participants noted that the doulas were supportive to them, such as labour support, supporting their husbands, and birth preparation, are not reflected in the PSQ. It would seem that the ways in which the doula are supportive are unique and may not be translated into statistically significant support on the support instrument used in this study. Therefore in the future it may be necessary to develop an instrument which can measure accurately the value of supportive tasks which a doula provides compared to that of the other members in the support network. The PSQ did not look at labour support, support for the husband, or the specialized birth-preparation support that a doula provides.

Contributions

The primary theoretical significance of this study is to show how the doula does in fact provide a unique form of support, not found in one's regular social support network. This research shows that doulas provided a unique support unavailable to the no doula group in areas such as: provided information, support for my husband, provided comfort, helped with decision-making, answered my questions, helped to fill in missing parts of my memory, helped to create a birth plan, provided normative perspective rather than a chaotic one, and an advocate at the hospital.

The theoretical significant is that the doula group showed a significant change in importance of support is crucial. After having experienced the support of a doula, these new mothers are now more aware of their own needs of support. This unique supportive person can be seen as a clarifier for the value of support in this area.

The importance of providing support and information for mothers on breastfeeding is also noteworthy. This area should be thoroughly examined. In the PSQ at both observation points the doula group noted this is the area where the greatest number of participants received support from their doula. Breastfeeding should be looked at as an area where support agencies can promote their services and expectant mothers can be more proactive before delivery in receiving information for this important task.

Finally, the important role that the doula plays in supporting the husbands is imperative to our knowledge of birth and delivery. For participants in the doula group who responded to the interview that one of the biggest helps for *them* was actually in supporting *her husband* and helping him know what to do. The value of support for the husband should not be underestimated. They are vital to the new mother's well-being, thus by the doulas supporting the husbands they are also supporting the woman. More

research in this area needs to be completed to assess from the father's point of view how the doula's presence was helpful to him. This will only add to the information on the woman's circle of support.

Limitations

There are some limitations to the study which should be addressed. Because the subjects were not randomly selected, the study is of a quasi-experimental nature. This decreases the strength and causal relationship explanations. Another way in which this study could be improved in the future would be to match the groups on more variables from the outset, such as size of social network, number of family members living in close proximity, and frequency of contact with members in the social support network. The present study employed a non-equivalent group design, although did attempt to match groups on a number of significant factors such as age, marital status, and level of education.

Another limitation to this study is the small sample size; a larger group of participants should be used to increase the strength of results acquired through this study. This limited sample size decreased the power of the instruments, making it difficult to ascertain statistical significance. Regarding sample procurement, it was difficult to locate primiparous women who were using a doula. Many women who are using doulas are women with previous children who had had a negative birth experience previously and wanted to improve the experience and process for their present pregnancy and delivery. This is an important fact in its own right, as women look for alternate supports different from their present support group, a support with specialized knowledge in labour and delivery.

Another limitation with this study is with the PSQ. This is an important point,

as many of the ways in which the participants noted that the doulas were supportive to them, such as labour support, supporting their husbands, and birth preparation, are not reflected in the PSQ. It would seem that the ways in which the doula are supportive are unique and may not be translated into statistically significant support on available instruments. Thus in trying to confirm hypothesis 2, the instrument which was used most likely was not able to report that doula participants actually did receive more social support due to the fact that the questionnaire did not address the areas where doulas actually do provide support.

Further Research Areas

Further research areas should focus on the relational aspects of a new mother's social support network. The value of support for the husband is worthy of research in it's own right, and additionally, it would shed light onto the direct and indirect support that a mother receives. More research in this area needs to be completed to assess from the father's point of view how the doula's presence is helpful to him. This will only add to the information on the woman's circle of support.

Another area of further research is that of comparing the experiences of women who have not used a doula for one delivery and used one for a subsequent delivery. It was interesting that in my recruitment for participants, again and again, women with children were primarily the recipients of doula services. This is in opposition to what many people believe; namely, that once you have delivered one baby, you are now more able to manage subsequent deliveries. That this always holds true is a fallacy, for many women—especially those who have had a negative birth experience—may be all the more anxious for subsequent deliveries. Researching the comparisons for a within subjects doula vs. no doula birth experiences would be very helpful to exploring the

supportive role doulas play in making the birth experience a positive rather than a negative memory.

## Conclusion

Doula services are an emerging profession in the in the area of maternal care. This study was helpful in demonstrating some of the unique ways in which doulas provide support to new mothers in relation to their support network. Women do value support more after receiving the care of a doula. At risk women for postpartum depression need to be informed of these results to increase support and empower themselves.

The process of giving birth to one's first child is a fascinating area of study. Millions of women experience it every year, thus "pregnancy has important public health implications for significant proportions of the large population of women around the world who experience it" (Dunkel-Schetter & Lobel, 1998). Discovering services that benefit women and their transition into motherhood is a worthy endeavor for all of us, as postpartum depression affects not only the new mother, but her baby, her marital relationship, and her family and friends. These results of this study tend to show that those women who have had a specialized source of support for a unique experience and transition in their lives respond positively. It is imperative that society discover all it can about easing the transition to motherhood through developing preventative measures to combat the debilitating effects of postpartum depression, as mothering is the most common occupation in the world, responsible for shaping the lives of future generations.

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# APPENDIX A

## Recruitment Notices

***COULD YOU HELP?***

Hello, my name is Laura Wittman. I am a graduate student at Trinity Western University in the counselling psychology department. I am embarking on my thesis research under the direction of Dr. Paul Wong which will be focused on doulas, social support, and postpartum depression. The purpose of this project is to discover what differences, if any, exist between women who use the services of a professional doula and those who do not. This study is primarily concerned with the aspect of social support, particularly in the postpartum period.

**I AM SEARCHING FOR INTERESTED PARTICIPANTS:**

***I am looking for married participants who are aged 20-35 and expecting their first baby.*** The requirements of the participants are to complete 2 questionnaires on 2 separate occasions; 4 weeks prior to the due date, and 4 weeks after delivery. As well, a short 15 minute interview will be conducted at the conclusion of the study to discuss the project.

**If you or anyone you know may be interested in participating in this study**, or would like more information, **please contact me at 882-3622** or wittman@uniserve.com. As well, **please pass the word along** to others you know who may be interested in assisting me in some way. Thank you!

Sincerely,

Laura Wittman

***TO ALL INTERESTED DOULAS,***

My name is Laura Wittman. I am a graduate student at Trinity Western University in the counselling psychology department. I am embarking on my thesis research which will be focused on doulas, social support, and postpartum depression. The purpose of this project is to discover what differences, if any, exist between women who use the services of a professional doula and those who do not. This study is primarily concerned with the aspect of social support, particularly in the postpartum period.

The requirements of the participants is that they complete 2 questionnaires on 4 separate occasions; 8 weeks and 4 weeks prior to delivery, and 4 weeks and 8 weeks after delivery. As well a short 15 minute interview will be conducted at the conclusion of the study to discuss the study.

I am looking for married participant who are aged 20-35 and expecting their first baby. If you know of any clients who would be interested in participating in this study, or are interested in finding out more information, please contact me at 882-3622 or wittman@uniserve.com. As well, please pass the word along to other doulas you know who may be interested. Thank you.

Sincerely,

Laura Wittman

# APPENDIX B

## Consent Form

# *DOULAS, SOCIAL SUPPORT, AND POSTPARTUM DEPRESSION*

## *CONSENT FORM*

Participant Copy

Laura Wittman 882-3622
Dr. Paul Wong 513-2034
(Faculty Advisor)

### *PROJECT INFORMATION*

The purpose of this project is to discover what differences, if any, exist between women who use the services of a professional doula and those who do not. This study is primarily concerned with the aspect of social support, particularly in the postpartum period.

As a participant, you will receive a package containing 2 questionnaires with 2 copies of each. You are requested to fill out the questionnaires on 2 occasions; 4 weeks prior to your due date, and 4 weeks after delivery. These take approximately 15 minutes to fill out each time. At the conclusion of the study, a short 15 minute interview will be conducted with you to discuss the study.

### *CONFIDENTIALITY*

All information that you provide for this study is confidential. You have the right to withdraw from the study at anytime without consequence.

Your anonymity is guaranteed. The list on which your name appears along with your personal information sheets will be kept in a secure location accessible only to myself, and cannot be directly linked to the completed questionnaire which are given a number code. This information will be destroyed at the conclusion of the study.

I have read and understand the description of the study and I willingly ***CONSENT*** to participate in this study.

_____ _____

Signature Date

# APPENDIX C

## Questionnaire Instructions

# *PACKAGE INSTRUCTIONS*

Thank you for participating in this study. Your assistance in this study is sure to produce useful information to future mothers like yourself, and health care providers. If you have any questions or concerns during the course of the study, please do not hesitate to contact me at 882-3622 or wittman@uniserve.com.

1. Each package should contain 2 questionnaires; the Support Questionnaire and the BDI with 2 copies of each, making 4 in total. The package should also contain 2 postmarked envelopes, 2 consent forms, and the Participant Information Form. If you are missing any package contents please contact me to supply you with the missing materials.

2. You will note that each questionnaire has a time recorded on the top to ensure that they are filled out at the appropriate time. These times are 4 weeks prior to your due date (yellow copies), and 4 weeks after delivery (green copies). It may be helpful to mark the dates on your calendar. At this time please sign both consent forms and Participant Information Form. The researcher copy of the consent form and the Participant Information Form should be sent along with your first set of questionnaires or given to me personally.

3. At 4 weeks before your due date, you are requested to fill out the yellow copies of the Support Questionnaire and the BDI marked “4 weeks before due date”.

*Remember, all of the information you provide is kept confidential. As well, if you feel uncomfortable answering any questions, please omit them by crossing off the question number.

4. After completing the first 2 questionnaires, you are requested to mail the questionnaires to me using the envelope provided for you in your package. It should take approximately 15 minutes to fill out the questionnaires each time.

5. Please repeat steps 3 and 4, at 4 weeks after delivery. At that time you are requested to fill out the green copies of the questionnaires marked “4 weeks after delivery”. I will phone you as a reminder to fill out the remaining 2 questionnaires.

6. When you have completed all of the questionnaires, I will contact you to set up an interview time. The interview will take approximately 15 minutes. This can be conducted either in person or via telephone.

Thank you for your time and co-operation.

Sincerely,

Laura Wittman

# APPENDIX D

## Participant Information Form

# Participant Information Form

Code: _____

Age: _____

Marital Status: Single Separated
Married Divorced Common Law

Annual Household Income:
Under $20,000
$20,000 - $30,000
$30,000 - $40,000
$40,000 - $50,000
$50,000 - $75,000
$75,000 - $100,000
Over $100,000

Highest Level of Education Completed:
Jr. High
High School
Some College/Technical Education
College/Technical Diploma
Some University Education
University Degree
Graduate Degree

Is this your first pregnancy?
Yes
No

Do you have any other children?
Yes
No

Have you had any serious medical complications during you pregnancy? Yes No

Comments: _____

When is your due date? _____

Ethnicity:

African Descent
Asian (please specify) _____
Caucasian
East Indian
First Nations
Other (please specify) _____

Religious Affiliation:

Buddhist
Catholic
Hindu
Islam
Protestant
Sikh
Other (please specify) _____

Under whose primary care will you be during your delivery?

Midwife
Obstetrician
Other (please specify) _____

In what setting do you plan to deliver you baby?

Hospital (please specify which one) _____
Birthing Room
At Home
Other (please specify) _____

# APPENDIX E

## Interview Questions

# *INTERVIEW QUESTIONS*

*DOULA GROUP*

1. What was the most helpful social support you have received during your pregnancy and after delivery? Why?

2. Was there any type of "social support" that was in fact not supportive? How so?

3. What were the 3 biggest ways in which a doula was helpful to you? How?

4. How many meetings did you have with your doula? At what point did she begin attending the labour?

5. What would you want other first time mothers to know about the experience of having a doula?

6. What was the most beneficial aspect of being involved in this study?

7. Was there anything you would change for future studies of this type?

8. Do you have any further questions or comments about the study?

Once again I would like to thank you for your participation and contributions to this project.

# *INTERVIEW QUESTIONS*

*NO DOULA GROUP*

1. What was the most helpful social support you have received during your pregnancy and after delivery? Why?

2. Was there any type of "social support" that was in fact not supportive? How so?

3. What were the 3 biggest ways in which your primary support person was helpful to you? How?

4. What would you want expecting mothers to know about your experience?

5. What was the most beneficial aspect of being involved in this study?

6. Was there anything you would change for future studies of this type?

7. Do you have any further questions or comments about the study?

Once again I would like to thank you for your participation and contribution to this study.

# APPENDIX F

## Demographic Bar Graphs

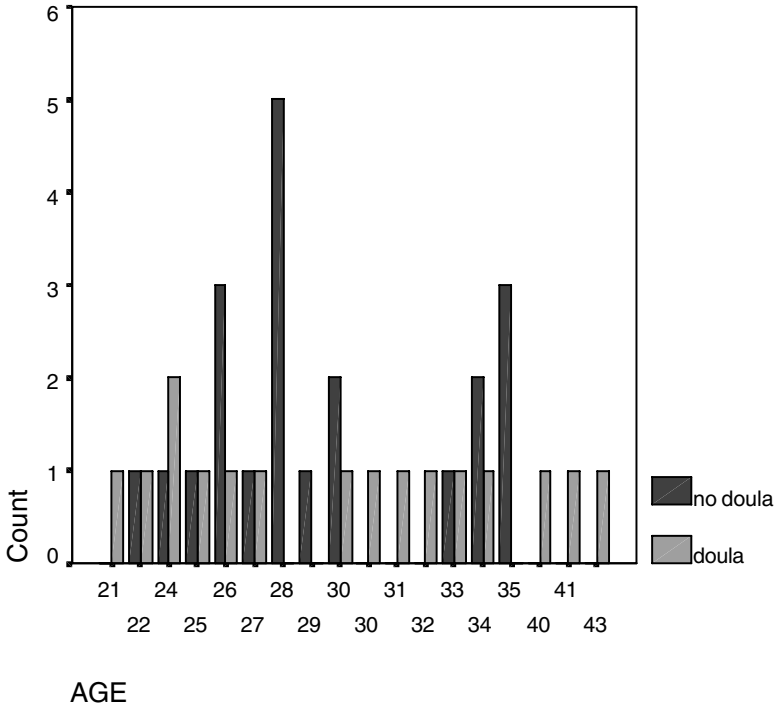


Figure F1. Doula and No Doula Groups Age Demographics Comparison

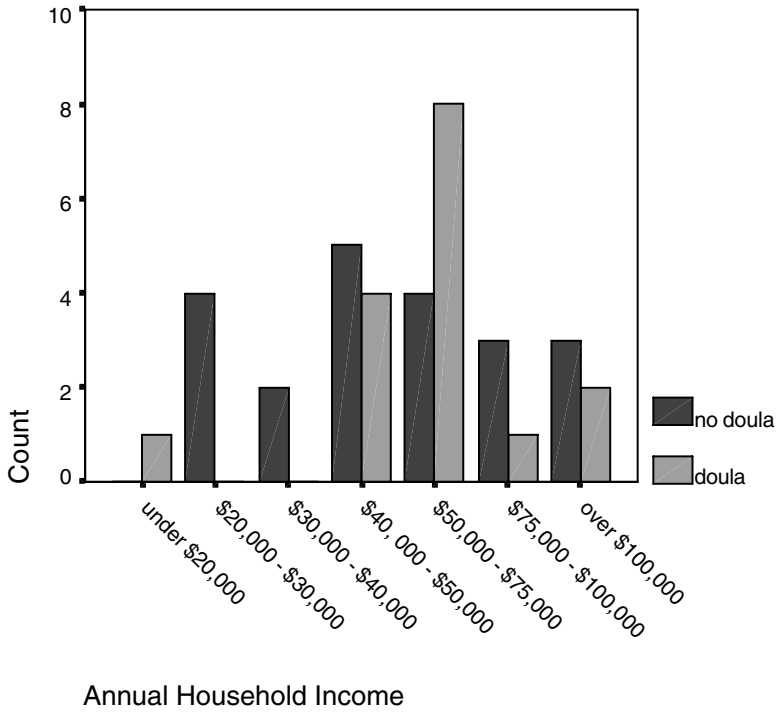


Figure F2. Doula and No Doula Groups Annual Household Income Comparison

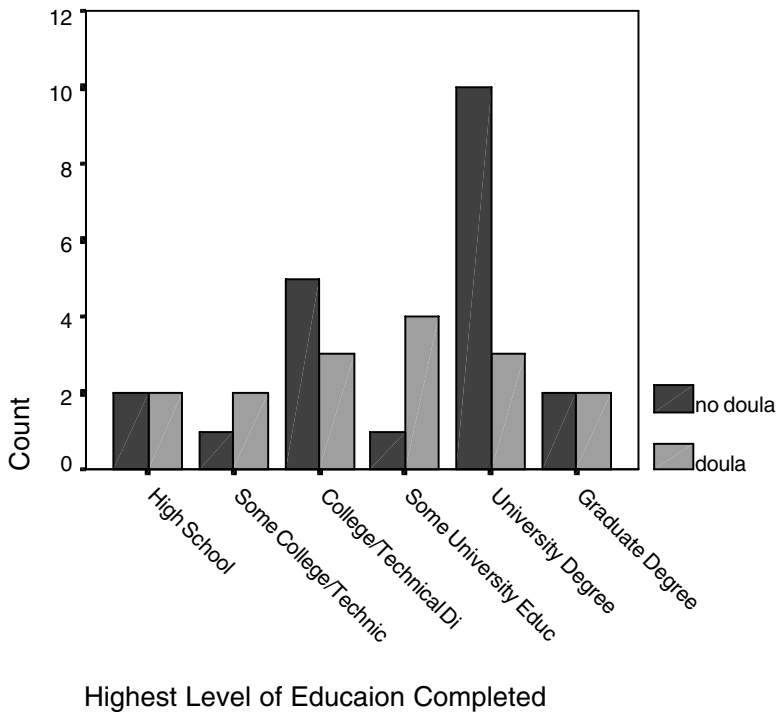


Figure F3. Doula and No Doula Groups Highest Level of Education Completed Comparison

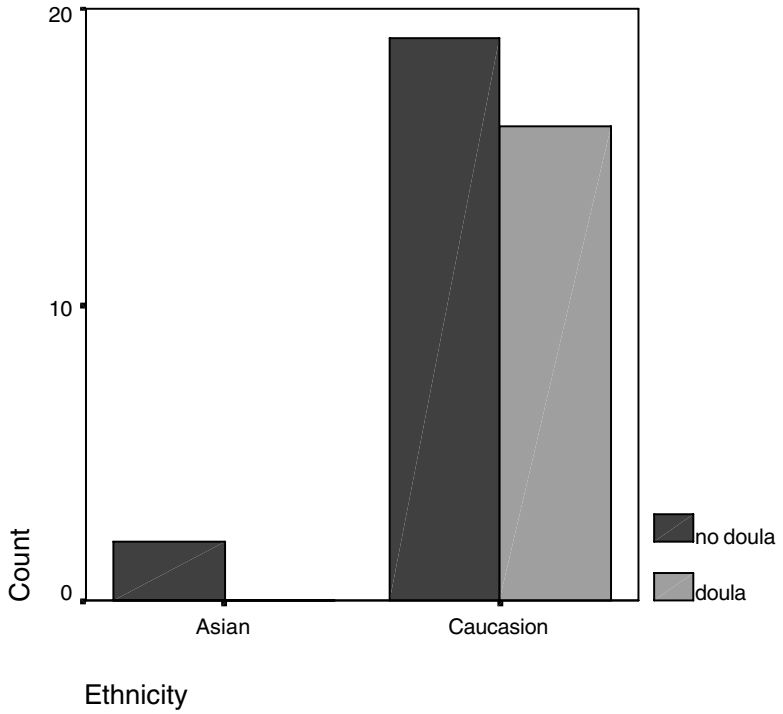


Figure F4. Doula and No Doula Groups Ethnicity Comparison

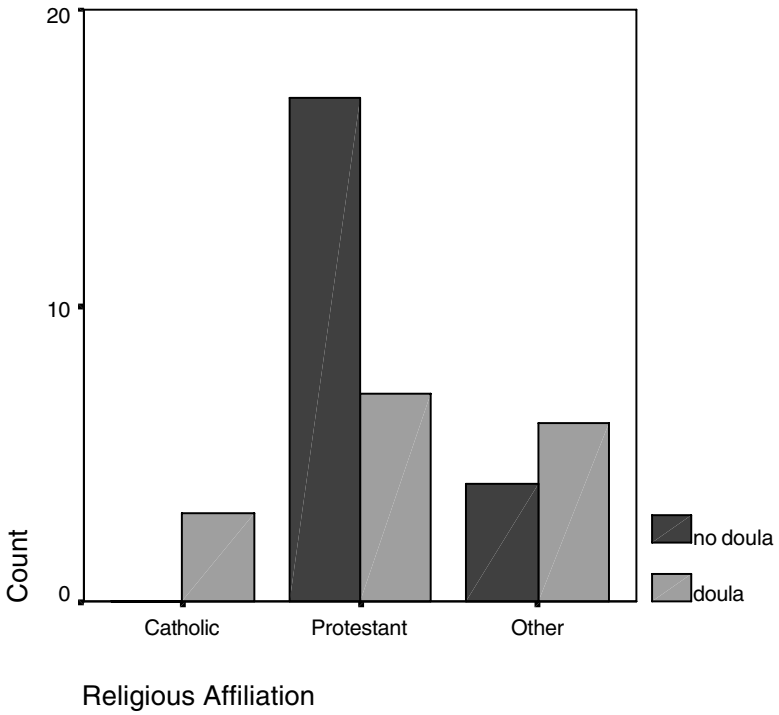


Figure F5. Doula and No Doula Groups Religious Affiliation Comparison