AMERICAN ACADEMY OF CLINICAL SEXOLOGISTS

A SURVEY OF FEMALE RESPONSE TO POSTPARTUM SEXUAL INTERACTION

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DISSERTATION APPROVAL

This dissertation submitted by Noelle Pomeroy has been read and approved by three faculty members of the American Academy of Clinical Sexologists.

The final copies have been examined by the Dissertation Committee and the signatures, which appear here, verify the fact that any necessary changes have been incorporated and that the dissertation is now given the final approval with reference to content, form and mechanical accuracy.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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VITA

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CONTENTS

ABSTRACT

Research suggests that women frequently experience sexual problems and varying levels of depression in the 12 month period following childbirth. This research was designed to gain insight into what women were doing about these postpartum problems. A survey with 44 questions was distributed online through snowball method using various social media and email contacts. 197 women from various locations in the United States responded to questions regarding their experiences with postpartum depression, sexual problems, and partner relations. The survey focused largely on the subjects' help-seeking behaviors. Results indicate that respondents experiencing depression and sexual problems were unlikely to seek help from professional, personal (non-partner), or internet resources. However, respondents were likely to speak to their partners about their concerns related to depression and sexual desire. While further exploration into help-seeking behaviors is warranted, accessibility to resources for help seemed to be a significant barrier to or facilitator of their behavior.

INTRODUCTION

Childbirth is a significant life transition that has a measurable impact on postpartum women's sexual functioning (Morof and Mayonda 2003). While 40-45% of adult women suffer from some sexual dysfunction (Lewis et al. 2004), research conducted by Acele and Karacam (2011) found that 91.3% of postpartum women had sexual problems. These postpartum sexual difficulties may be influenced by the trauma to the reproductive organs, stress and constraint caused by the newborn, physical discomfort, fatigue, loss of sexual desire, perception in decrease in attractiveness, and change in body appearance (Wouda et al. 1998; Blackburn 2003; Brauer et al. 2007). These physical, psychological, and sociocultural factors may cause females to experience up to a one-year delay in returning to pre-pregnancy levels of sexual activity (Olsson et al. 2005). There is an accumulation of evidence in peer-reviewed literature pointing to the prevalence and severity of sexual dysfunction postpartum. According to self-report, some healthcare providers have begun addressing women's concerns about resuming and maintaining healthy sex lives after having a child. However, given the complexity of the issue and that there are many factors that influence sexual functioning, there remains a lag in addressing all aspects of postpartum sexual dysfunction. This is especially the case with an overemphasis in some areas of study such as the link between breastfeeding and reduced sexual desire (Blackburn 2003, Byrd et al 1998, Glazener 1997, LaMarre et al. 2003, Stern et al. 1986) and an underemphasis in other areas such as relational factors in sexual dysfunction.

Lee and Tsai (2012) found that routine care provided by obstetricians and medical staff is generally limited to the timing of first postnatal intercourse and contraceptive use. Furthermore, research by Shindel et al. (2010) suggests that medical providers may lack training in obtaining an appropriate sexual history. It remains to be studied further how women and couples can be

best supported in their resumption of healthy sexual activity in the postpartum period despite its many physical, psychological, social, and relationship challenges. Many researchers and clinicians have focused on balancing inquiry into these factors and addressing women's unique needs postpartum.

The delicate nature of postpartum sexuality makes it difficult for some women to discuss (Olsson et al., 2009). For instance, women who have experienced traumatic childbirth and suffered medical complications may be less likely to request counseling or initiate a discussion on her fears and concerns. Similarly, women who are experiencing marital difficulties may find it difficult to bring up issues of sexual desire and functioning as well as intimate engagement with the partner (Olsson et al. 2009).

Until research by Hipp et al. (2012) explored "global relational sexuality," there was very limited research on the influence of a woman's partner on the gap between a woman's postpartum sexual desire and behavior. The study suggests that women may lack sexual desire but still engage in sexual behavior for relationship reasons such as fulfilling a partner's desire or wishing to reduce relationship conflict due to sexual desire disparity (Hipp at al., 2012). However, Hipp et al.'s (2012) study doesn't explore the specific feedback, tangible or perceived, postpartum women receive from their partner to influence their decision to participate in sexual activities with their partner despite having low desire.

During the postpartum period, how a woman handles her "mother role" affects her sexual desire levels (De Judicibus and McCabe, 2002). According to the researchers, mothers with lower satisfaction with the adjustment to pregnancy, childbirth, and early infant care expressed lower levels of sexual desire and higher levels of sexual functioning disruptions than in the prenatal period. While De Judicibus and McCabe (2002) proved a woman's satisfaction with her

new role is relevant to her sexual functioning, there is no exploration of what aspect of her role causes these changes. Exploration of how postpartum women feel about transitioning back and forth between the role of mother and sexual partner, both anatomically and psychologically, may provide further insight into their experience.

The apparent lack of information available to postpartum women is unfortunate as it appears that education about sexual health is key to lower rates and duration of postpartum dysfunction. Lee and Tsai's (2012) study found that women with access to sexual health education materials reported lower levels of sexual problems during the one year postpartum period and returned to pre-pregnancy levels of sexual activity at more rapid rate than women who did not receive the materials.

LITERATURE REVIEW

There are physical, biological, and contextual factors contributing to the change in many women's sex lives after experiencing childbirth (Basson, Brotto, Laan, Redmond, and Utian 2005; Reamy and White 1987). These factors can be broken down into more specific categories: fatigue, relationship factors, body image, vaginal issues and birth trauma, and hormones and breastfeeding (Hipp, Low, and van Anders 2012). Despite numerous research studies that have been conducted during the past few decades, there still exists a gap in the literature that addresses the complex interaction of these factors. For instance, breastfeeding and its biochemical and psychological impact on sexual desire and functioning in the first year postpartum are referenced extensively in the literature. However, relational factors such as partner expectations have not been the focus of research. Rather, research has focused on global relationship and marital satisfaction indices. Finally, the complex interaction between such factors as breastfeeding and depression, as well as fatigue and role expectations have not been covered as extensively. The relationship between all of these factors and the disparity in training and understanding of this topic has affected the ability of healthcare providers to address women's sexual health postpartum effectively. The result of the literature review in this paper will include detailed information on the extent and relationship of the physical, biological, and contextual factors that contribute to postpartum sexual dysfunction.

Given the potentially complex nature of a postpartum woman's sexual health and the limited information available to them by their healthcare provider, it remains unclear if, and where, women with sexual dysfunction symptoms are obtaining information about their condition. Research conducted by the Pew Internet & American Life Project (2009) suggests 86% of individuals access their general health information through a health professional. This

figure is significantly higher than findings by Barrett et al. (2009) that only 15% of postpartum women experiencing sexual problems address the issue with their maternity care provider. This suggests that women with postpartum sexual problems are educating themselves through sources other than their care provider, like friends, family, the internet, or not at all.

Physical factors in postpartum sexuality

Earlier research has supported the impact of childbirth on sexual functioning, especially in the postpartum period. In a large study, Glazener (1997) followed 1075 women over a period of a year. The goal of the study was to examine women's sexual functioning and the types of problems they experience. The researcher found that more than half of the women reported difficulties with intercourse in the first eight weeks after childbirth. Perineal pain was a distinctly strong predictor of sexual functioning problems during the first year postpartum for women in the study. Women who reported physical symptoms such as perineal pain and fatigue, as well as psychological symptoms such as depression, were more likely to report intercourse difficulties than those who did not. The same result was found for women who breastfed their infants with bottle-feeding women reporting fewer difficulties. Glazener (1997) concluded that fatigue contributed to breastfeeding women's sexual functioning problems.

These results support Alder and Bancroft's (1987) research in which breastfeeding women reported greater difficulties with sexual functioning than non-breastfeeding women. Women who breastfed were also more likely to report depression at 3 months postpartum; however, this disparity disappeared at 6 months postpartum. Byrd et al. (1998) also found that at one month postpartum, the sexual relationship in a couple was more satisfactory for both men and women when the mother was not breastfeeding.

Breastfeeding is typically associated with a decrease in sexual desire in women (Blackburn 2003). In their study of 570 pregnant women and 550 of their husbands or partners, Byrd et al. (1998) found that breastfeeding women reported a greater decrease in sexual desire postpartum than non-breastfeeding women. Breastfeeding is associated with a greater presence of the hormone prolactin (a condition termed 'hyperprolactonemia') which is implicated in reduced testosterone in women, and a resultant decrease in sexual desire (Blackburn 2003). In their study, Stern et al. (1986) found that many women spent approximately 80 minutes, with a minimum of 6 sessions, breastfeeding their infants which contributes to fatigue and sleep disturbances. Their study has also advanced the opinion that intense breastfeeding resulted in hyperprolactonemia. In a review paper by LaMarre et al. (2003), the authors concluded that a link existed between breastfeeding and reduced sexual desire which "might be mediated by androgen levels and exacerbated by an interaction with fatigue and depression" (158). This supports the Stern et al. (1986) proposition. LaMarre et al. (2003) have also found strong support for the role of dyspareunia in reduced sexual desire and functioning, especially at 3 and 6 months postpartum. Evidence shows that dyspareunia is implicated in decreased vasocongestion and a reduction in genital response to sexual stimulation, both of which reduce sexual desire and satisfaction (Wouda et al. 1998). However, LaMarre et al. (2003) concluded that this negative effect of dyspareunia on sexual desire and functioning reduces significantly after 6 months, unless associated with breastfeeding.

Acele and Karacam (2011) also studied the impact of physical, psychological, and sociocultural factors on the sexual functioning and quality of life of postpartum women. The researchers surveyed 230 women during their first year post childbirth. Similar to earlier studies (Byrd et al. 1998; Glazener 1997; Reamy and White 1987), women experienced significant

sexual functioning problems in the first postpartum year. Acele and Karacam (2011) found that women resumed sexual intercourse within 7 weeks, on average, which is consistent with the time period that women in the Byrd et al. (1998) study resumed sexual intercourse. More than 90% of the women had sexual difficulties in the first postpartum year that were related to perineal status, breastfeeding, breast discomfort during intercourse, dyspareunia, and infant care (Acele and Karacam 2011). Interestingly, the researchers found that women were more likely to experience sexual problems in that year if they were older and had experienced sexual problems during pregnancy. Specifically, 40% of women who had sexual problems during pregnancy continued to experience some problems during the first postpartum year.

Rathfisch et al. (2010) studied how genital trauma during birth was associated with postpartum sexual dysfunction in 55 women. The researchers focused on perineal trauma and its effect on a number of sexual factors including libido, orgasm, and satisfaction. The participants were given complete gynecological exams at 3 months postpartum. They were also given questionnaires that explored their sexual functioning before pregnancy and at present. The participants were asked to report sexual experiences at both periods including sexual desire, arousal, lubrication, sexual satisfaction, and pain. Finally, the participants were given face-to-face interviews whereby questions about their sexual experiences and desire before pregnancy and after birth were explored.

Rathfisch et al. (2010) found a number of dramatic differences in pre-pregnancy and post-birth sexual functioning such as the frequency of sexual intercourse. Approximately 14.5% of the women reported having intercourse more than four times per week before pregnancy, while only 1.8% reported this same frequency after giving birth. Furthermore, women reported sexual dissatisfaction at twice the rate and reduced sexual desire at three times the rate during the

postpartum period in comparison to pre-pregnancy. The researchers noted that women with second degree perineal lacerations who also had an episiotomy reported greater dissatisfaction with their sexual lives than those with an intact perineum. These women were also more likely to take longer to resume sexual intercourse than women with an intact perineum. Similarly, women with an intact perineum reported no changes in their frequency to reach orgasm while those with perineum lacerations as well as those with an episiotomy reported a decline in orgasm reaching frequency. Considered together, perineal injury during childbirth is a significant factor in a number of sexual functioning determinants including the frequency of sexual intercourse and the ability to reach orgasm. Furthermore, perineum injury puts women at risk for a prolonged recovery period that delays the resumption of healthy sexual activity with its potential negative effects in a woman's intimate relationship with her partner.

Rathfisch et al.'s (2010) results are supported by a summary of research studies conducted by Hicks et al. (2004). Hicks et al. reviewed studies between 1990 and 2003 that focused on the impact of vaginal deliveries on sexual functioning in the postpartum period. They found sexual functioning in this period was delayed and women reported greater sexual problems due to dyspareunia and perineal pain for those who experienced assisted vaginal delivery. Women reported greater problems including arousal, desire, lubrication, orgasm, and sexual satisfaction when they had an assisted delivery. As seen in the Rathfisch et al. (2010) study, it seems that assisted procedures such as episiotomies are more likely to result in perineal injury that affects sexual functioning, desire, and behavior. Both researchers emphasize the importance of minimizing mechanical trauma to the perineum when assistance is inevitable in a vaginal delivery, in order to reduce the likelihood that sexual functioning would be affected adversely in the postpartum period. Rathfisch et al.'s (2010) results confirm earlier research by Reamy and

White (1987) who found that the most frequently reported reasons for poor sexual functioning postpartum were episiotomy discomfort, vaginal bleeding, insufficient lubrication, and fatigue.

Psychological factors in postpartum sexuality

Recent evidence supports Glazener's (1997) study on the impact of depression on sexual functioning postpartum. Moel et al. (2010) examined maternal depression effects on sexual functioning postpartum. The researchers focused on postpartum depression (PPD) which is defined as any depression in the first year after giving birth. The goal of the study was to compare depressed and never depressed women's sexual functioning in the postpartum period. It also aimed to explore factors such as breastfeeding and marital satisfaction during this period. Moel et al. (2010) surveyed 120 depressed and 56 never depressed women by giving them self-report questionnaires at intervals of 6 months up to 18 months after initiating treatment. The researchers found that depressed women were less interested in sexual intercourse and reported less satisfaction with their sexual lives than never depressed women.

These results are consistent with Glazener's (1997) results. Interestingly, the researchers found that even after the conclusion of treatment, previously depressed women continued to exhibit less interest in sexual intercourse and less satisfaction with their sexual lives than never depressed women. The implications of these long-term effects of postpartum depression are significant and cause enough for healthcare providers to monitor depressed women over a longer period. This is especially important as prolonged sexual dysfunction can lead to intimacy difficulties in a relationship which bring about their own set of coping challenges for the women and her partner. With marital conflict and sexual dissatisfaction in both partners, a woman can be at risk for relapse into depression.

In their review paper, LaMarre et al. (2003) found that fatigue and depression are the most prevalent psychological factors behind disruptions in sexual functioning in the first year postpartum. Particularly, women who breastfed their infants were more likely to report sleep deprivation, fatigue, and depression, all of which are implicated in reduced sexual desire and functioning. The researchers also found that sleep played a central role in reports of postpartum depression and continued psychological impairment beyond the first year postpartum. Finally, LaMarre et al. (2003) concluded that the literature supports a correlation between the period of breastfeeding and continued sexual dysfunction. Women who breastfeed longer are more likely to resume sexual intercourse later, report greater dyspareunia, report reduced sexual desire, and experience greater fatigue and sleep disturbances.

Postpartum changes and couples' sexual functioning

Sexual functioning after giving birth, whether vaginal or through a caesarean section, is of importance to many women and men. Earlier research by Fischman et al. (1986) evaluated perceived changes in sexual functioning and intimacy among postpartum couples. The researchers surveyed 68 couples at 4 months postpartum and 126 couples at 12 months postpartum. While the research was not longitudinal, it shed light on the impact of childbirth on sexual functioning for both men and women at two different periods in the first year postpartum. The researchers found that couples experienced reductions in sexual desire as well as a reduction in the frequency of sexual activity. This was especially relevant for mothers who reported physical discomfort with sexual intercourse, physical strength decline, body image dissatisfaction, and fatigue at 4 months postpartum.

Fischman et al.'s (1986) study results are supported by Pastore, Owens, and Raymond's (2007) research. Pastore et al. (2007) surveyed 111 expecting parent cohorts about their concerns on sexuality topics. At four months postpartum, both men and women were concerned about the resumption of sexual activity, birth control, and physical recovery from the birth. At the one year mark, both mothers and fathers reported an impact on their sexual functioning due to sexual desire discrepancy which was defined as a mismatch in sexual desire between the partners. Pastore et al. (2007) also found that, at this one year mark, relational issues such as childrearing responsibilities and body image issues were of concern to the mothers. Additionally, fathers reported mood swings and the resumption of sexual activity as major concerns. In the Byrd et al. study (1998), fathers were found to be more sensitive to their reporting of sexual satisfaction when the mothers were breastfeeding. More fathers reported greater satisfaction when mothers were not breastfeeding.

It is important to note from this evidence that physical, psychological, and relational factors are likely to interact and exacerbate sexual dysfunction. Fatigue, for instance, is often a consequence of sleep disturbances and breastfeeding commitment in an infant's first few months. However, fatigue, in turn, is implicated in the development of depression, mood swings, and marital conflict and resentments. Therefore, whenever a factor in sexual dysfunction is being considered in the postpartum period, it is important to note both its causes and its influences. This is also relevant for relational and intimate contact factors in postpartum sexuality.

Relational factors in postpartum sexuality

De Judicibus and McCabe (2002) also studied the impact of a number of factors including relational issues on women's postpartum sexuality. The researchers surveyed 104

women at 3 months postpartum; of this figure, 70 also filled out questionnaires at 6 months postpartum. Being satisfied with their relationships was consistently related to sexual desire in the postpartum period. Specifically, women in the De Judicibus and McCabe (2002) study reported decreased sexual desire due to fatigue, breastfeeding, dyspareunia, and depression at both the 3 and 6 months' marks postpartum. Depression, particularly, was found to be a significant predictor of reduced sexual functioning and sexual intercourse at 3 months postpartum. These results confirm earlier findings by Kumar et al. (1981) who surveyed 119 first time mothers on their sexual functioning. The researchers found that maternal depression was correlated with reduced sexual activity and satisfaction at 3 months postpartum. The researchers also found that a reduction in sexual desire and frequency of sexual intercourse were positively correlated with increased marital conflict (Kumar et al. 1981).

Conversely, the quality of the mother role was related to sexual functioning at 6 months postpartum. The researchers defined the words mother role as a comparative one to the words work role; the quality of the mother role is, hence, judged by its support and satisfaction for the woman. De Judicibus and McCabe (2002) acknowledge that both depression and the quality of the mother role have a particularly important impact on postpartum sexuality in this group of women as they were first time mothers. Different results in subsequent samples of multiparous women may yield different outcomes. According to the researchers, the adjustment to pregnancy, childbirth, and early infant care contributed to sexual desire and functioning disruptions for women. They have also contributed to reduction in sexual intercourse frequency in comparison to pre-pregnancy norms. A limitation in this study is that mother role definitions and conceptions may vary depending on the social and class demographics of women. For instance, a stay-at-

home new mother may view her role differently than a woman in a professional career or a working class woman.

Hipp et al. (2012) examined factors that influence women's postpartum sexuality. The researchers were specifically interested in women's experiences during the postpartum period as measured in the first 3 months after childbirth. In addition to studying these experiences, Hipp et al. (2012) aimed to fill gaps in the literature that have contributed to a limited understanding of women's postpartum sexual behaviors and desires including a narrow definition of sexual activity resumption. Research in this area has typically focused on heterosexual intercourse and neglected other sexual experiences and expressions including oral sex. The literature has also not studied partners' support and experience fully during the postpartum period. Instead, previous literature has focused on more global definitions and indices of marital satisfaction and/or marital conflict.

To address these limitations, Hipp et al. (2012) broadened the definition of sexual activity to provide a comprehensive understanding of this complex issue that does not focus solely on typically studied factors such as vaginal injury, fatigue, and breastfeeding. Furthermore, in a departure from previous operationalization of postpartum sexual activity, the researchers differentiated between sexual desire and sexual behavior. The goal of this differentiation was to relate proposed sexuality-affecting variables under study to desire and behavior; this is because some women may lack desire but engage in the behavior for relational reasons such as fulfilling a partner's desire or wishing to reduce marital conflict due to sexual desire disparity. The researchers recruited 304 women who had had a child within the previous year, and were in a relationship with a partner in the 3 months following the birth. Participants completed questionnaires on pregnancy and childbirth experiences as well as postpartum experiences such

as social support. Participants also completed questionnaires on sexual desires in those 3 months and their perceptions of partners' sexual desires.

In their analyses, Hipp et al. (2012) explored factors that were strongly related to sexual experiences during the postpartum period. They found that most of the participants (85%) engaged in intercourse while nearly two thirds (65%) engaged in oral sex. They also found that 61% of participants engaged in masturbation. The researchers found that women's postpartum sexual activity initiation was, in part, driven by perceived or actual interests of their partners. Interestingly, the researchers did not find a link between vaginal trauma and the pattern of postpartum sexuality. This is in contrast to previous research (Alder and Bancroft 1988; Kumar, Brant, and Robson 1981; Rathfisch et al. 2010; Reamy and White 1987) that supported biomedical assumptions of vaginal trauma being of concern to all postpartum women, especially in the early months following birth. According to Hipp et al. (2012), women's perceptions of social support influenced the resumption of sexual activity; however, this support was not associated with sexual desire reports. Similarly, fatigue was related to desire increase but was not implicated in the resumption of sexual activity (behavior). Conversely, postpartum women's birth experiences were not found to be related to sexual desire but contributed to the resumption of sexual activity.

The Hipp et al. results widened the scope of postpartum sexuality study by considering it a component of "global relational sexuality" (2012, 2337). By showing that women's perceptions of their partners' sexual desires affected postpartum sexuality more than vaginal trauma and discomfort, the researchers emphasized the importance of relational factors in this complex issue. This is particularly the case whereby previous relationship factors emphasized general issues

such as overall marital satisfaction without paying close attention to the partners' experiences and desires.

Assessment and management of sexual problems postpartum

Given the accumulation of evidence pointing to the prevalence and severity of sexual dysfunction postpartum, healthcare providers have begun addressing women's concerns about resuming and maintaining healthy sex lives after having a child. However, given the complexity of the issue and that there are many factors that influence sexual functioning, there remains a lag in addressing all their effects and interactions. This is especially the case with an overemphasis in some areas of study such as the link between breastfeeding and reduced sexual desire, and an underemphasis in other areas such as relational factors in sexual dysfunction. Furthermore, it remains to be studied further how women and couples can be best supported in their resumption of healthy sexual activity in the postpartum period despite its many physical, psychological, social, and relationship challenges. Many researchers and clinicians have focused on balancing enquiry into these factors and addressing women's unique needs postpartum.

Olsson et al. (2009) studied midwives' reflections on how they counsel women on their sexual health during a postnatal checkup. The researchers gathered data in 2006 and 2007 from ten clinics in Stockholm. Midwives are considered an important part of the childbirth and postnatal infrastructure in place to support women, families, and infants. Whether in the Netherlands or other parts of the world, many women seek pre- and postnatal care from midwives alone or in conjunction with physicians. In their study, Olsson et al. (2009) sought the reflections of their counseling experiences with women given their importance as frontline healthcare providers in the first year postpartum. The goal of the study was to understand how

midwives provide psychological support to women in this period, especially in the relationship and sexual health areas of recovery and functioning. Thirty two midwives participated in the final study through a focus group discussion design.

Five focus group discussions were conducted during the study and the discussions were recorded for content analysis. The midwives were invited to discuss their experiences in providing counseling and, with prompts, the discussions were allowed to flow freely and be guided by the midwives. The qualitative method of content analysis was used to identify meaning units, such as words, sentences, or paragraphs to find relationships between them. Finally, these meaning units were condensed and coded, and a comparison among the coding of three researchers analyzing the discussions was conducted. Following the analysis, two main themes and four categories were developed. According to Olsson et al. (2009), the themes and categories were as follows:

> "The first theme was 'balancing between personal perceptions of the woman's needs and health system restrictions', with the categories 'forming a picture of the woman coming for the postnatal visit guided the counseling' and 'lack of knowledge and time limits restricted the counseling about sexual life after childbirth'. The second theme, 'strategies for counseling about sexual life after childbirth' included another two categories, 'task-oriented approach in counseling about sexual life after childbirth' and 'getting in tune to approach the topic of sexual life after childbirth.'" (197).

The midwives' identification of four images of women was an interesting finding in their approach to postpartum sexual health counseling. The researchers note that the midwives chose their counseling approaches based on these images which are as follows: healthy women, women with have experienced traumatic childbirth and complications, women who are experiencing marital difficulties, and women with communication challenges who are mostly described as

foreign-born women. According to the midwives, each image prompted a different approach to counsel women on sexual health postpartum and to provide a unique, individualized solution for problems. However, the midwives noted that, given the sensitivity of the matter, many waited until the woman had approached them with specific questions or challenges.

According to Olsson et al. (2009), this delicate nature of postpartum sexuality, and its relation to other aspects of sexual health such as relationship and intimate violence, makes it difficult for some women in the four images categorized by the midwives to discuss. For instance, women who have experienced traumatic childbirth and suffered medical complications may be less likely to request counseling or initiate a discussion on her fears and concerns. Similarly, women who are experiencing marital difficulties may find it difficult to bring up issues of sexual desire and functioning as well as intimate engagement with the partner. Finally, the researchers note that women with communication challenges would find it difficult to articulate problems about sexual desire and functioning postpartum.

Despite these challenges, the midwives shared two distinct approaches to postpartum sexual health counseling that they use. The first approach is a task-oriented one that is performed within a specified time frame. For instance, some midwives encouraged clients gently to resume sexual activity with their partners after physical healing has occurred or supported them with empathy to abstain for a specific period until ready. The second approach, on the other hand, is considered subject-oriented which involves discussions on sexual health that take the woman's feelings, concerns, and choices into consideration. According to Olsson et al. (2009), the midwives in the study aimed to balance the two approaches and tailor them to the four categories of women they support in their practice.

The midwives in the study expressed a number of barriers to providing more extensive counseling to women on postpartum sexual health. Among these challenges are limited time in a postnatal checkup visit and limited budgets for providing interpreters for those who need them. Furthermore, the midwives expressed frustration with prevailing narrow attitudes that interfere with the consideration of sexual health after childbirth as important as other aspects of physical and psychological coping. Olsson et al. (2009) acknowledge that their study has a limitation in problems based on data validity. The researchers note that group discussions on sensitive and delicate issues can hinder gaining deeper insights into participating midwives' thoughts, reflections, and feelings on sexuality counseling. In future studies, the researchers believe that in-depth, individual interviews can provide a greater validation approach to focus group discussions.

An important impediment to providing adequate sexual clinical and counseling support to women postpartum is the difficulty in assessing dysfunction. Basson et al. (2005) aimed to study how low sexual desire or interest as well as an associated lack of arousal during sexual engagement have not been the focus of this assessment. Specifically, postpartum women's subjective reports of poor sexual arousal and clinically observable increases in genital congestion have not been a part of assessment and management of sexual dysfunction traditionally. The researchers wished to develop comprehensive recommendations or guidelines that would help in assessing and managing women's sexual dysfunctions that point to reduced desire, reduced interest, and lack of arousal (Basson et al. 2005). To do so, they assembled 200 multidisciplinary experts from 60 countries into 17 committees. One 5-member committee compiled evidence over two years in order to develop these guidelines and recommendations.

According to Basson et al. (2005), a detailed and accurate assessment of sexual dysfunction is necessary. The researchers advocate a biopsychosocial approach that involves the couple. Ideally, the couple would be interviewed separately and individually to gain in-depth information on existing sexual difficulties, their context, the state of their relationship, their social and working lives, and other influencing factors such as financial and cultural ones. Individual interviews are important in exploring past sexual difficulties, relationships, and the development of sexual problems. They are also important to explore possible traumatic events such as childhood sexual abuse that could interfere with current sexual intimacy with the partner. Basson et al. (2005) also advocate a focus on medical history, psychological profiling, and the presence of psychiatric comorbidities such as depression that could influence sexual desire and arousal. In the best conditions, the partners would undergo a physical exam to shed light on undiagnosed health problems such as diabetes that may interfere with vasocongestion and affect sexual arousal.

Basson et al. (2005) stress that assessment must be done in a careful and understanding manner that takes into account past traumatic events such as rape or childhood abuse, as well as past traumatic childbirth experiences. The researchers add that this careful and gentle approach is necessary in the presence of reported or documented cases of dyspareunia as it affects the trust and comfort of the women being examined. Other aspects of the biopsychosocial assessment of partners in sexual dysfunction include laboratory testing for hormonal imbalances and psychophysiological investigations that may uncover psychological or structural barriers to sexual desire and/or arousal.

According to Basson et al. (2005), once a diagnosis of the sexual dysfunction is made, management of sexual desire/interest and arousal disorders takes a biopsychosocial approach as

well. In the management of psychological factors behind the dysfunction, psychological counseling and support may be necessary. Women may be referred to psychologists or therapists who may use a number of approaches such as cognitive behavior therapy, known as CBT, to help them restructure and resolve emotional intimacy problems in a relationship. For some women, short term psychotherapy that aids in improving poor self-esteem, image issues, and mood instability may be necessary. Psychological counseling can also help women contextualize and explore other aspects of their relationships to understand how they influence sexual health and satisfaction.

In the management of biological factors behind the sexual dysfunction, therapy will depend on the underlying condition. Given the accumulation of evidence linking depression with sexual dysfunction over the past few decades, Basson et al. (2005) recommend direct treatment of major depression as it is implicated in reduced sexual desire and arousal disorders in both men and women. Antidepressants and psychotherapy, individually or in conjunction, are approaches used to treat depression and have been shown to improve conditions of sexual dysfunction. However, as shown in the Glazener (1997) study, postpartum women may continue to suffer sexual desire reductions even after the completion of treatment. This suggests that long-term monitoring of these women's psychological functioning may be necessary as well as the use of different treatment modalities to resolve the depression.

When clinicians suspect androgen insufficiency in women, they can provide treatment that addresses it such as testosterone patches to increase sexual desire/interest and resolve arousal problems. It was shown in this review that breastfeeding, in particular, has been associated with hormonal changes such as hyperprolactonemia which are implicated in androgen insufficiency (Blackburn 2003; LaMarre et al. 2003; Stern et al. 1986). For postpartum women

facing androgen insufficiency, concomitant factors such as breastfeeding must be taken into consideration before suggesting hormone therapy. Also, arousal disorders have responded to topical or systemic estrogen administration when estrogen insufficiency was implicated.

Finally, it is important to emphasize that the biopsychosocial approach to the assessment and management of sexual dysfunction in postpartum women helps clinicians and patients manage the complexity of this important issue. For an individual woman, reduced sexual desire or poor sexual satisfaction may have a number of underlying issues, medical, psychological, or social, that both overlap and interact. The key in managing this dysfunction is to pull apart the issues and determine which ones contribute directly and indirectly to the sexual problems. Furthermore, since many problems have residual effects, such as postpartum depression, it is important that any management modality takes long-term control and resolution of sexual dysfunction into account in postpartum women.

While the Basson et al. (2005) study suggests that psychological counseling is important in assessing and managing sexual dysfunction, it can often be a challenge for clinicians to determine the right type of counseling approach. Leeners et al. (2006) explored actual psychosomatic counseling models for gynecological patients in Switzerland and in Germany. The researchers recruited 128 German and 57 Swiss departments of gynecology, obstetrics, and/or endocrinology to complete questionnaires on psychosomatic counseling. The researchers targeted these departments to gain more information on the prevalence of psychological comorbidities when patients present with somatic complaints. The reasoning is based on research that shows that women with unresolved psychological problems are much more likely to spend time in the hospital for their somatic problems and require much more expensive outpatient care than women without psychological problems.

Leeners et al. (2006) asked questions in their surveys on the type of counseling models available to gynecological and obstetric patients. For instance, respondents were asked whether patients received counseling within the treating department or were referred to psychosomatic or psychiatric clinics. Respondents were also asked if they provided a number of counseling services such as crisis intervention, family therapy, sexual counseling, relaxation techniques, short-term therapy, and group therapy. More than 93% of German clinics and nearly 87% of Swiss clinics considered psychosomatic counseling to be important or very important when providing gynecological and obstetric care. University clinics were much more likely to consider this type of counseling to be very important in both countries. Nearly 70% and 72% of German and Swiss clinics offered psychosomatic counseling to patients, respectively.

Despite these figures, less than 20% of the clinics of either country offered a well-defined psychosomatic consultation. The researchers consider this a barrier against facilitating referrals from private practitioners for psychosomatic counseling to these clinics (Leeners et al. 2006). In other words, private physicians and other caregivers are less likely to refer their patients to these clinics for psychosomatic counseling due to the lack of clearly defined consultations. Furthermore, models of psychological counseling vary within and across clinics, mostly due to the lack of specialists who can develop clear guidelines and treatment protocols.

Despite the importance of sexual dysfunction assessment and management by clinicians who are well-trained, patient education is important, especially in the postpartum period. Lee and Yen (2007) conducted a randomized controlled evaluation of a theory-based postpartum health education program, termed interactive postpartum sexual health education programme (IPSHEP). The researchers were interested in examining the effects of this interactive education program on postpartum women's sexual health knowledge, their sexual health attitudes, and

contraceptive and sexual self-efficacy. The researchers defined self-efficacy as "participants' confidence in their perceived ability to perform healthy postpartum sexual behaviours" (395). Lee and Yen's justification for this program evaluation is that sexual education programs, while imparting knowledge adequately, have not been consistently shown to change sexual behavior. Thus, they aimed to evaluate the effectiveness of this program in not only increasing sexual health knowledge but changing sexual decision-making behavior as well.

Lee and Yen (2003) recruited 166 women at a medical centre in Taiwan. The researchers divided the participants into two groups: an experimental group (n=84 women) which received the interactive postpartum sexual health education programme and a control group (n=82 women) which received standard postpartum teaching. The researchers divided the women in the intervention group according to their learning capability and preparedness. This learning capability is assessed through the transtheoretical model which targets changes in health-related behaviors due to interventions or programming. The model also acknowledges that individuals are often at different stages of behavior changes; thus, behavioral change is not considered an event but a process.

The researchers found that the interactive postpartum sexual health education programme was more effective in expanding the sexual health knowledge of postpartum women and enhancing their attitudes toward sexual health than standard postpartum instruction. Specifically, sexual health knowledge, attitudes and sexual self-efficacy were significantly higher for women in the interactive postpartum sexual health education programme than the standard program at 3 days and 8 weeks post completion. The researchers, however, did not find significant differences in contraceptive self-efficacy between the intervention and control groups. While the results of the Lee and Yen (2003) study are promising in imparting positive gains in postpartum women's

sexual health knowledge, attitudes, and self-efficacy, future research may shed light on whether these gains translate to behavior changes beyond the 8 weeks. Thus, both sustained behavior changes and long-term effectiveness are limitations in the study that warrant further research and investigation.

Medical professionals addressing sexual issues

Physicians' preparedness and willingness to discuss sexual issues with their patients has been of interest to researchers. The focus in literature, however, has been on related issues of pregnancy, sexually transmitted diseases, and fertility (Haist et al. 2004; Lurie et al. 1998; Okeefe and Tesar 1999). Issues of sexuality and sexual health among certain population groups have been even more challenging as physicians have had to address problems among gay men (Matharu et al. 2012; Petroll and Mosack 2011), middle aged and older women (Farrell and Belza 2012; Maes and Louis 2009; Politi et al. 2009), and those engaged in what are considered to be high risk behaviors (Foster et al. 2011). Some of the challenge has been due to the nature of sexuality as a biopsychosocial phenomenon composed of concomitant processes operating on different levels (Brandenburg and Bitzer 2009).

Women who are in the postpartum period are also considered to be a group with unique medical and psychological needs regarding sexuality and sexual health issues (Hipp et al., 2012; Safarinejad, Kolahi, and Hosseini 2009). Research into postpartum women's needs, especially in light of health providers' training and willingness, has been lacking, however. Many insights, nonetheless, can be gained from research conducted on physicians' and other medical providers' training, competencies and attitudes to discuss sexual health issues among diverse populations.

Steinauer et al. (2009) examined the inclusion of sexual health in preclinical United States and Canadian medical education. The researchers analyzed data from 122 medical students surveyed between 2002 and 2005 and found that the range of sexual and reproductive health topics covered in the curricula varied. They found that while pregnancy and sexually transmitted diseases were overwhelmingly covered in the curricula of the participating medical schools, issues of sexuality and sexual orientation were less so (Steinauer et al. 2009). For instance, only 74% of the schools had some coverage of these issues with regional disparities; 77% of schools in the West of the United States delivered sexuality and sexual orientation preclinical medical education while only 60% of those in the South did.

Typically, issues of sexuality in physician-patient discussions are examined among specific populations such as women facing cancer and the effect of therapies on fertility and sexual dysfunction. Scanlon et al. (2012), for instance, found that rates of discussions on treatment impact on sexual health were low at 77% despite the majority of women reporting some sexual dysfunction and many reporting severe dysfunction. Furthermore, they found that 33% of these women were dissatisfied with the length and quality of discussions with their physicians regarding sexual function. Similarly, Politi et al. (2009) examined the role of patient-provider communication quality regarding sexual health and intimate relationships among unmarried, middle-aged and older women.

This qualitative study with 40 participants found that while some of the women did not believe that health providers should ask about sexual issues if not directly related to sexual issues, most found questions regarding these issues on intake forms to be inadequate. Interestingly, most of the women agreed on common themes that they considered to be important in the patient-provider communication; one such theme is that women were more likely to

disclose sexual health issues if they perceived the clinician to avoid assumptions and judgments. Additionally, unmarried women expressed greater comfort with female clinicians. On the medical practitioner end for this specific population, Maes and Louis (2009) studied 500 nurse practitioners and found that only 2% always conducted a sexual history with patients over 50 while nearly a quarter never or seldom conducted this assessment. The reasons cited by clinicians in their study for such low frequency of sexual history taking was lack of time, interruptions and communication skills' limits.

The Politi et al. (2009) and Scanlon et al. (2012) studies shed light on an important aspect of sexual health issues' discussions in patient-provider interactions which is the nature and quality of communication. This communication is often a function of medical and nursing students' training, and variance in training can be reflected in providers' comfort with sexual health issues in a clinical setting (Frank, Coughlin, and Elon, 2008; Malhotra et al. 2008). Shindel et al. (2010) examined how sexuality training impacted United States and Canadian medical students' comfort in dealing with patients' sexuality in clinical practice. The authors found that more than half of the 2,261 students (53%) felt that their medical school training to address sexual concerns was inadequate. These students, and those with limited sexual experience or at risk for sexual problems, were more likely to report discomfort in talking to their patients about sexuality and sexual health issues. The authors noted that students' sexual mores and practices had an effect on their comfort in speaking to patients about sexual health issues in clinical practice (Shindel et al. 2010).

In addition to perceptions of training and personal factors, a closely related variable in clinicians' likelihood to discuss sexual health issues is their attitudes and subjective norms. Mansell et al. (2011) studied nurse practitioners and physician assistants' likelihood to discuss

sexual concerns among premenopausal women. Specifically, the researchers explored how these clinicians perceived their role in discussing low sexual desire in clinical practice. Mansell et al. (2011) found that attitudes explained about a third of these clinicians' intent to discuss sexual health. For instance, they found that 82.8% of nurse practitioners and 73.5% of physician assistants found such a discussion to be appropriate. However, it is interesting to note that those who found it 'interesting' were 65.7% and 47.9%, respectively. Furthermore, fewer nurse practitioners and nurse assistants described sexual health discussions as 'something I would like doing' at 60.2% and 44.5%, respectively. Finally, even fewer (47.4% and 30.8%, respectively) considered them a high priority. The implications of these results are important to consider for postpartum women. Leeman and Rogers contend that "not being sexually active at 12 weeks of pregnancy is predictive for dissatisfaction with the sexual relationship at 1 year, underlining the importance of discussing sexual problems early in pregnancy" (2012, p. 652). This early communication can have both therapeutic and preventive benefits for postpartum women.

The Mansell et al. (2011) research is also insightful in that the clinicians were asked about those practice and patient-provider determinants that would lead to the initiation of a sexual health discussion. The researchers found nurse practitioners and physician assistants were more likely to initiate a sexual health discussion if they have established a trusting relationship with a patient (80.5% vs. 82.0%, respectively), know how to approach patients concerns (82.1% vs. 76.8, respectively), and had sufficient time with the patient (61.6% vs. 64.6%). The implications of these results are important in that they provide greater insights into those clinical practice specific elements that may either encourage or discourage a clinician from willingness to initiate a discussion on sexual health. This is especially important among postpartum women as low

sexual desire is an important sexual health problem in the first year following birth (Hipp et al., 2012).

Brandenburg and Bitzer's (2009) research supports these conclusions as well as Shindel et al. conclusions regarding the role of personal variables and mores in the likelihood of clinicians to discuss sexual health issues. Brandenburg and Bitzer found that physicians experienced barriers in discussing these issues with their patients for a number of reasons including the fear that sexual matters would create too much closeness to the patient and may hurt or embarrass them if raised (2009, p. 125). The researchers also note that physicians cited lack of time and therapeutic helplessness in helping some patients deal with sexual matters. Interestingly, some physicians reported that their sexual medicine training was inadequate which acted as a barrier in addressing issues with patients. Finally, Brandenburg and Bitzer's (2009) noted that some physicians' sexual mores and agendas acted as a barrier to effective communication about sexual health matters.

Conversely, patients' barriers against a discussion of sexual health issues in their study included feelings of shame regarding sexual disclosure. Also, some patients considered sexual health issues to be less of an illness which was behind their reluctance to bring them up in practice. It is curious to note that similar to physicians who feared that they would not have time, some patients expressed a fear that physicians would not have time to discuss their sexual health issues. This result is deserving of a pause as it may reflect a general trend in clinical practice that relegates sexual health or concerns to a minor issue behind what both physicians and patients would consider to be less of a concern. Finally, Brandenburg and Bitzer (2009) note that some patients are unaware that sexual dysfunction and difficulties may have therapeutic interventions which their providers can offer. Thus, they feel less inclined to seek counsel about them.

The reluctance of many physicians and patients to bring up sexual health issues may also have psychosocial components. Florez-Salamanca and Rubio (2013) conducted a study that analyzed the literature on sexual prejudice among medical and other health students. The researchers found that there was significant evidence to indicate that such prejudice not only existed but acted as a barrier to effective patient-provider communication about sexual health. Specifically, the researchers found that rates of sexual prejudice among doctors in training ranged from 15% to 25%. Male doctors in training were likely to display prejudice than female doctors, while those doctors without exposure to sexually diverse groups were more likely to be prejudiced (Florez-Salamanca and Rubio, 2013).

Given the variables that impede or discourage practitioner-patient communication about sexual health, some studies have examined those underlying factors. Emmers-Sommer et al. (2009) studied the relations of this communication with gender, age, gender-stereotypical beliefs and perceptions of inappropriateness. The researchers found that women were more likely than men to initiate discussions; of particular interest was that "that healthcare providers' initiations of sexual health discussions with women was significantly related to her age such that the initiation of discussion appeared to decrease as the woman aged (Emmers-Sommer et al. 2009, p. 678). These results indicate the health practitioners' practices and attitudes towards personal variables in patients such as age are likely to affect their willingness and initiation of sexual health discussions. Unsurprisingly, Banter et al. (2012) found that physicians were also less likely to discuss sexuality related issues in this case patient education with adolescent patients. The implications of this result is that providers have underlying attitudes regarding age.

Healthcare providers' willingness and preparedness to discuss sexual health issues must be examined against the multidimensional nature of women's postpartum sexuality and the

evidence present regarding these providers' training, practice and personal aspects. Hipp et al. (2012) hold that postpartum sexuality is impacted by social, physical, and relationship factors. These factors include birth experiences, sexual desire, and perceptions of their relationships and social support. The complexity of these factors can influence how patients and providers alike approach them in clinical practice. It is already evident from the research that inadequate training, poor communication, lack of time, personal mores, and sexual prejudice can affect whether a health practitioner will initiate a discussion about sexual health. Similarly, patients also experience barriers that prevent them from discussing their sexual dysfunctions or concerns. For women postpartum sexuality, the practitioner-patient communication and relationship are especially important to cultivate in order to create an environment where these issues are discussed.

METHODOLOGY

Design

The purpose of this research was to find how women responded to postpartum sexual problems and depression they may have experienced. The intention was to uncover whether women with these issues were seeking help, what they perceived their informational resources to be, and if they found those resources to be helpful.

A survey questionnaire was the instrument for this research. See Appendix 2. The survey was constructed on SurveyMonkey.com and distributed to subjects through snowball method online. The survey was posted on Facebook, Twitter, LinkedIn, YouBeMom.com, and distributed to individuals through this researcher's personal and professional email contacts. This online questionnaire was given to females, 18 years of age or older, who have given birth during their lifetime.

Upon accessing the electronic link to the survey, participants agreed to and signed the Informed Consent. See Appendix 1. This Informed Consent described the purpose of the study, and the participants were ensured confidentiality regarding their identities. No identifying information was gathered from participants. The survey questionnaire was written in English.

The survey questionnaire consists of 44 questions. Since Survey Monkey's software numbers the Informed Consent as question number one, the final question is number 45. The survey questionnaire posed questions regarding participants' experience with postpartum issues such as depression, change in sexual desire, and vaginal pain during intercourse. Subjects were also asked about if and where they sought help for these postpartum problems and what resources they might utilize if they had access.

SurveyMonkey.com's answer piping feature allowed respondents to skip questions that did not apply to their circumstance. For example, when asked "During the 12-month postpartum period I would describe my depression level as (choose the most appropriate answer)," respondents who selected "No change from my pre-pregnancy depression level," were not presented with the remaining questions regarding postpartum depression. If the subject stated their postpartum depression level was different, either higher or lower, than pre-pregnancy, they were presented with the remaining postpartum depression questions. The answer piping feature was used throughout the survey.

In the event that subjects had given birth to more than one baby, they were asked to refer to their experiences in the 12-month period following the birth of their last child. This feature was designed to keep subjects' answers consistent throughout the questionnaire.

Recruitment of sample

The sample for this survey research design was obtained through online snowball sampling technique. According to Rubin and Babbie (1997), the term snowball refers to the process of accumulation as each located subject suggests other subjects. This researcher posted a link to the survey on Facebook, Twitter and LinkedIn with a message that read, "If you've EVER given birth to a baby, please consider taking this anonymous survey. The information gathered will be used in my doctoral dissertation. Reposting or sharing would be appreciated. Thank you."

Participants were recruited through this researcher's personal and professional contacts. 36 emails were sent with the link to the survey and the following message: "I am conducting research for my PhD on Female Response to Postpartum Sexual Interaction. Since you are at

least 18, female, and have given birth to a baby at some point in your life, please take the time to answer this survey. Your answers will be anonymous. I am grateful to anyone who is willing to repost/share this survey or pass it along to others." Additional subjects were recruited by posting a message on the parenting message board, YouBeMom.com. The message read, "If you've EVER given birth to a baby, please consider taking this anonymous survey. The information gathered will be used in my doctoral dissertation. Thank you."

RESULTS

The final sample for this study was comprised of 197 women who were 18 years of age or older. The following demographic information was gathered in the survey: race, sexual orientation, current age, location, age during birth of last child, how long it had been since their last child was born, and whether they had internet access during the 12-month postpartum period. Demographic information about race, sexual orientation, current age, and location is shown in Table 1. Information about a respondent's location was added to the survey after 120 individuals had already responded. Therefore, location information is only available for 80 subjects.

193 subjects completed the demographic information on race, sexual orientation, and current age. 173 identified as White/European Americans, followed by Mixed race (10), Hispanic/Latina (3), Black or African American (3), Asian/Pacific Islander (3), and Native American/Caucasian (1). No subjects identified as Native American. A majority of subjects consider themselves heterosexual (182 of 193), while small numbers of participants considered themselves bisexual (7), gay/lesbian (3), or asexual (1). While a large portion of the 193 subjects were in the 30-39 age range (112), the 18-29 range was also strongly represented (43). Fewer subjects fell into the 40-49 range (22), 50-59 (8), and 60 years and older (8). A mean current age for subjects could not be calculated because the "60 years and older" group was too broad to calculate an accurate mean.

Of the 80 subjects who completed the location information, 15 were from Michigan, followed by Florida (14), New York (9), California (6), Wisconsin (4), Illinois (3), and outside the United States (3). 17 states and Puerto Rico were represented by two or fewer respondents.

Table 1. Demographic Information: Race, Sexual Orientation, Current Age, and Location

Variable	**total group**	
	n=193	
Race:		
White/European American		173
Black or African American		3
Hispanic or Latino/a		3
Asian/Pacific Islander		3
Native American		0
Mixed race		10
Native American/Caucasian		1
Sexual Orientation		
Heterosexual		182
Gay/Lesbian		3
Bisexual		7
Asexual		1
Current age in years		
18-29		43
30-39		112
40-49		22
50-59		8
60 years and older		8
	n=80	
Location		
California		6
Connecticut		2
Florida		14
Hawaii		1
Idaho		1
Illinois		3
Indiana		1
Kentucky		2
Massachusetts		1
Maine		1
Michigan		15
Minnesota		2
Montana		1
North Carolina		2
New Jersey		1
New York		9
Ohio		1
Oregon		1
Outside the U.S.		3
Pennsylvania		2
Puerto Rico		1
Tennessee		1
Texas		2
Utah		1
Washington		2
Wisconsin		4

187 subjects answered demographic questions pertaining to their age during the birth of their last child, how long it had been since the birth of their last child, and whether they had internet access during the 12-month postpartum period. Demographic information gathered regarding these three categories is found in Table 2. The mean age of subjects during the birth of their last child was 29.79 years. 166 of 187 of participants had internet access during the postpartum period following the birth of their last child.

Table 2. Demographic Information: Age at Birth, Time since Last Birth, and Internet Access during Postpartum Period

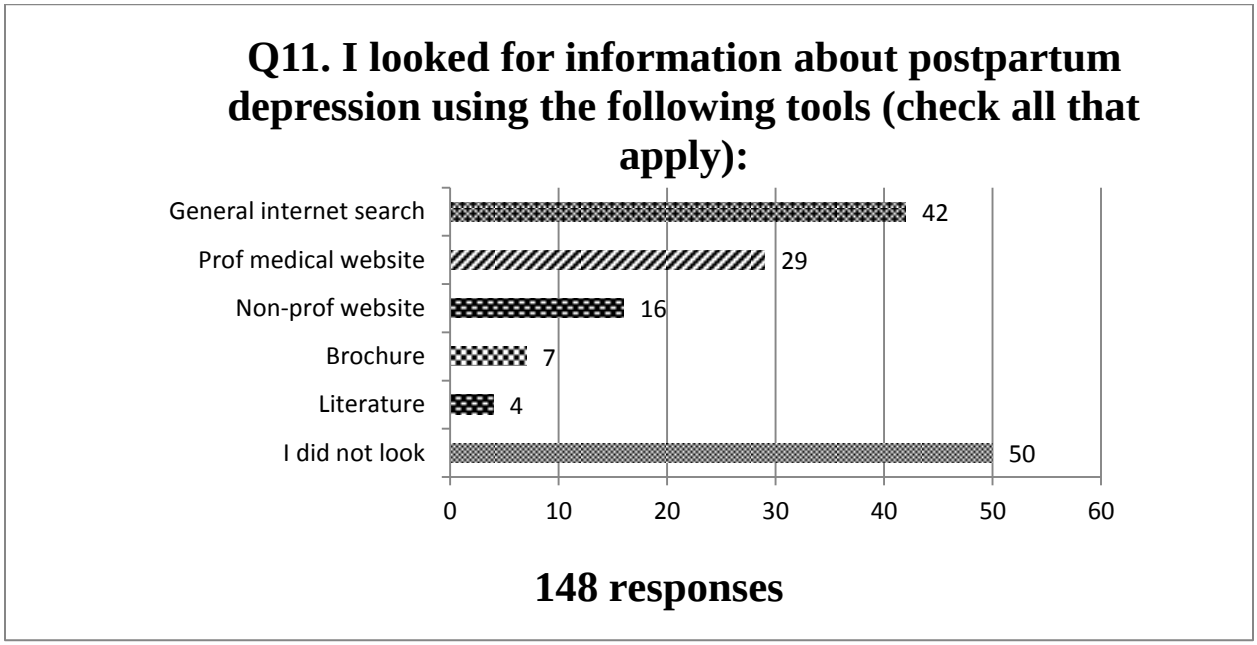
Variable	
	n=187
Age during the birth:	
13-17	0
18-24	20
25-29	78
30-34	54
35-39	32
40-49	3
50-59	0
Time since last birth:	
12 months	44
1-3 years	65
3-5 years	23
5-10 years	25
Over 10 years ago	30
Internet access during postpartum period:	
Yes	166
No	21

Use of resources

To explore postpartum women's resources we asked subjects where they looked for information about postpartum depression, postpartum change in sexual desire, and vaginal pain during intercourse. 94 subjects indicated that their depression level postpartum was different than their pre-pregnancy level of depression. These participants were given the option of selecting multiple answers. There were a total of 148 responses which can be found in Figure 1.

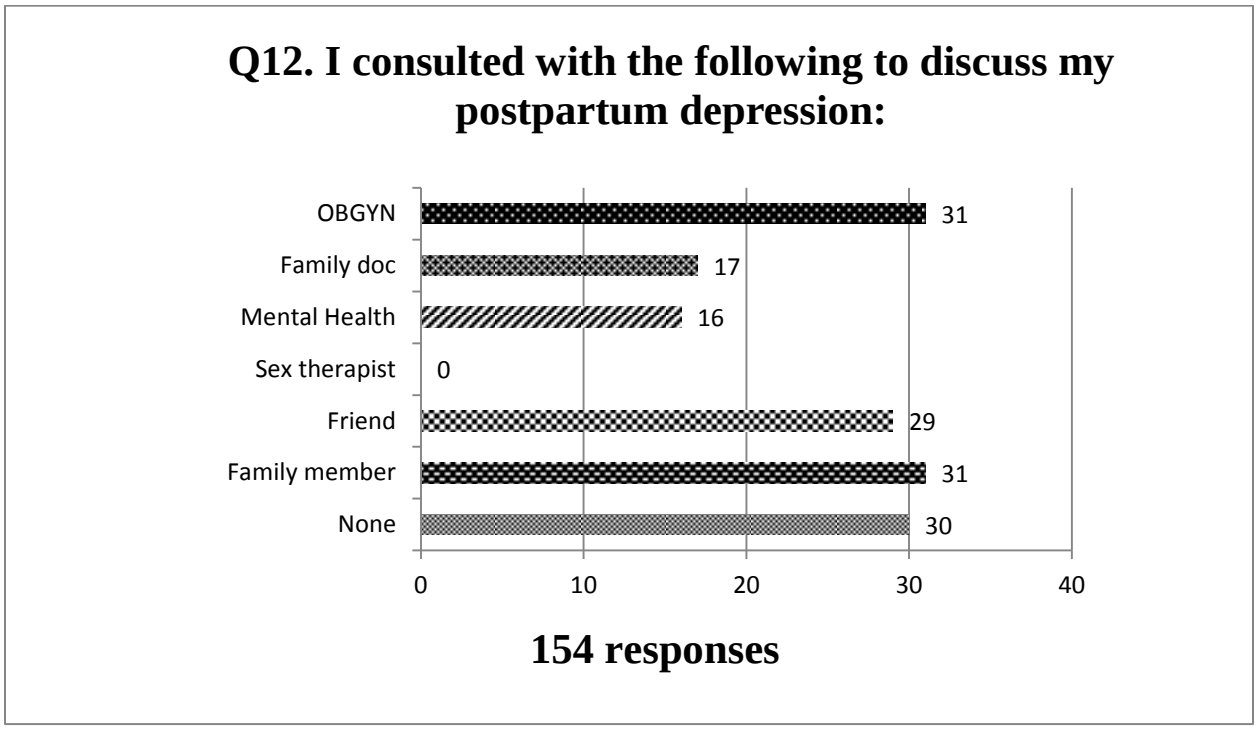
While 50 responses indicated there was no search for information about postpartum depression, 87 sought out information on the Internet. Of these Internet searches, 42 noted using general Internet search engines, such as Google, Yahoo, or other search engines. 29 used professional medical websites such as WebMD, Mayo Clinic, or other medical websites. The remaining 16 of Internet information search responses were for nonprofessional websites such as mom blogs, cosmopolitan.com, or other websites.

Figure 1. Tools Used to Find Information on Postpartum Depression



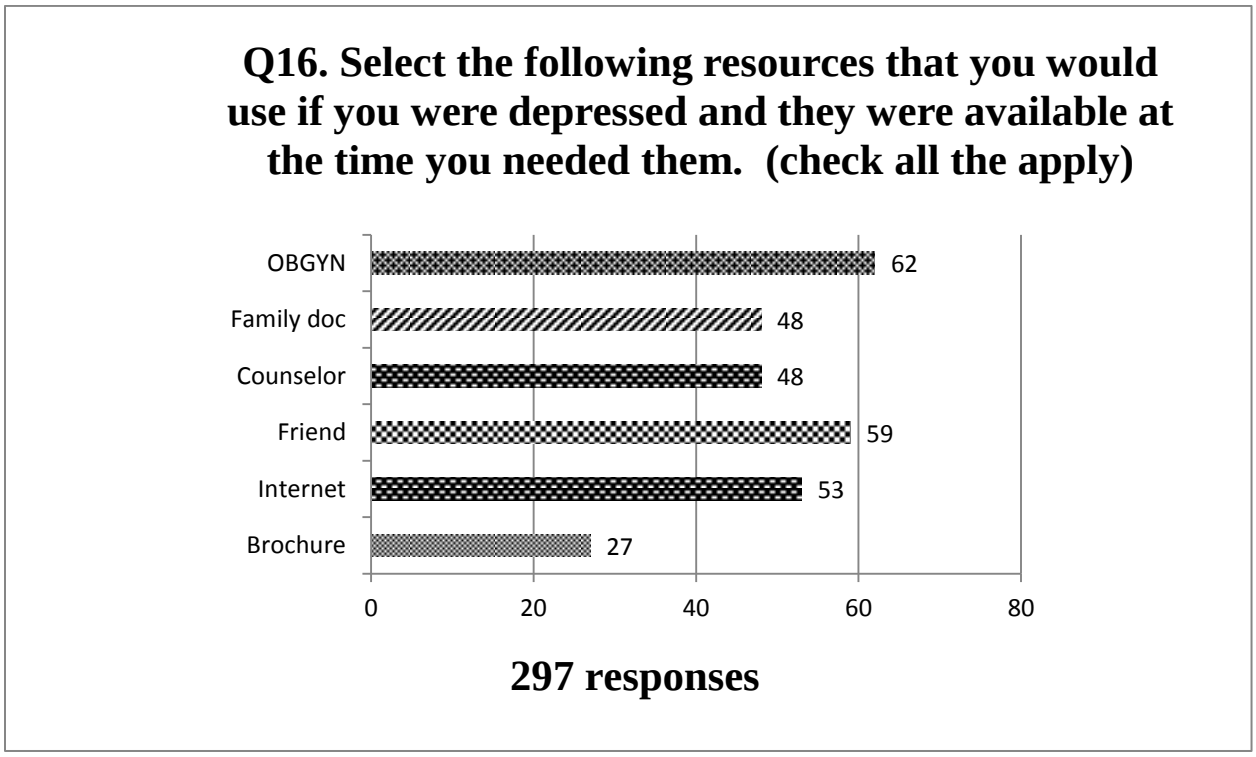
Regarding consultation, 95 subjects provided 154 responses to the question "I consulted with the following to discuss my postpartum depression (check all that apply)." These responses, found in Figure 2, indicate that individuals were most likely to consult with no one (30), a family member (31), or an obstetrician/gynecologist or maternity care provider (30). Of the 65 subjects who sought consultation about postpartum depression, 47 indicated that the consultation was helpful.

Figure 2. Consultation for Postpartum Depression



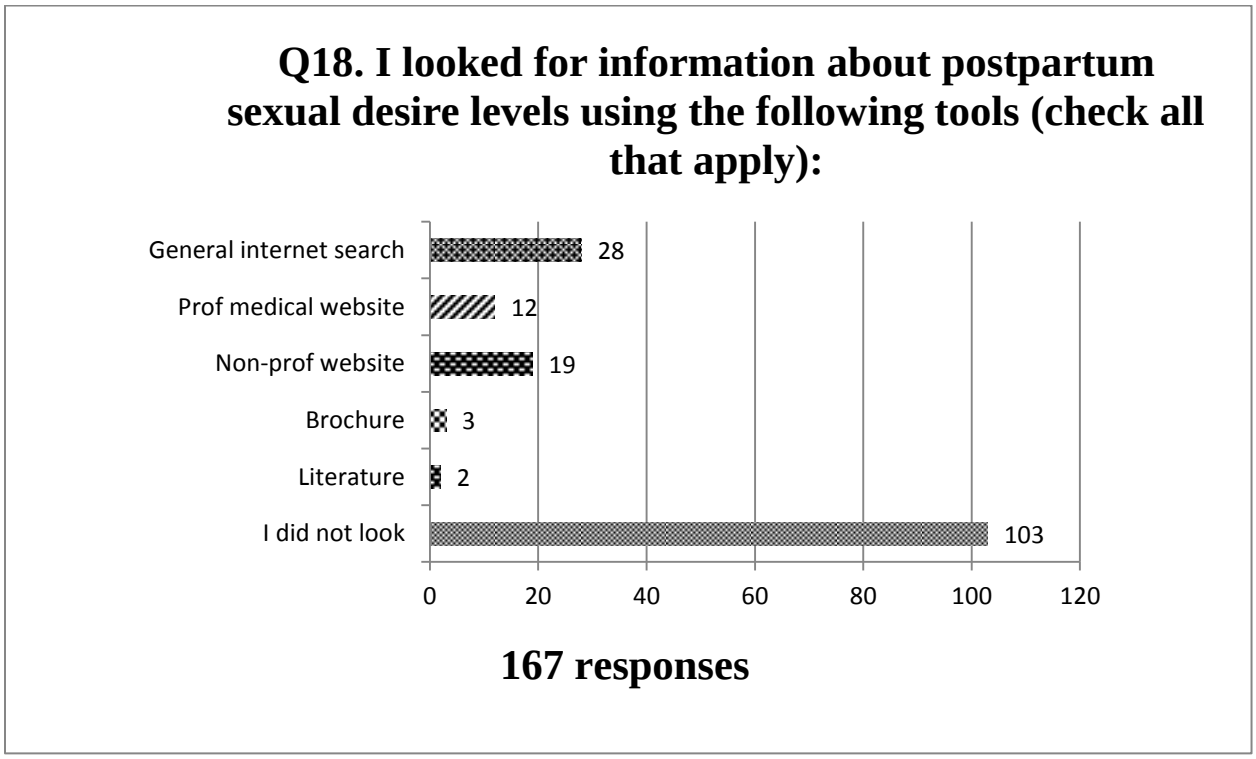
Subjects were then asked about what resources they would use if they were depressed and the resources were available. 89 subjects provided 297 responses. See Figure 3.

Figure 3. Use of Available Resources for Depression



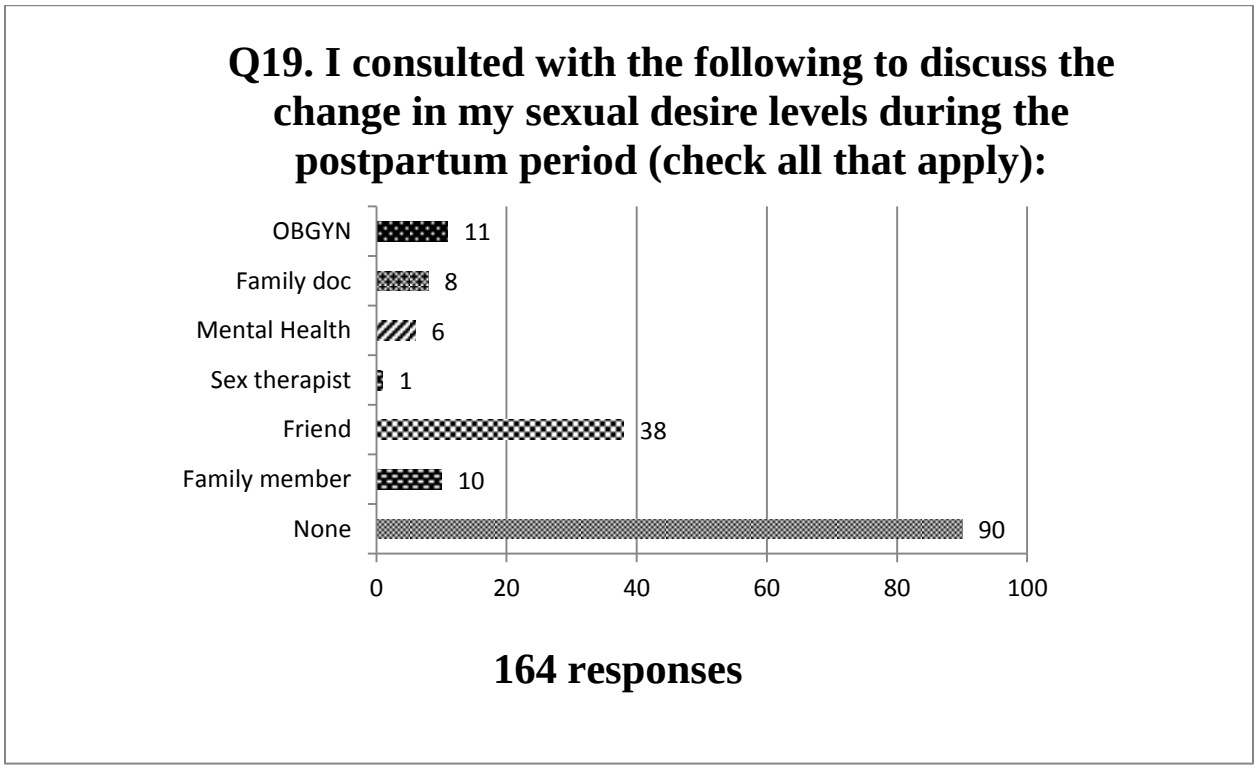
The next set of data pertained to women's behavior when they experienced a postpartum change in sexual desire levels. 143 subjects who reported a postpartum desire level change gave 167 responses to the question "I looked for information about postpartum sexual desire levels using the following tools (check all that apply)." A majority of responses (103) indicated they did not look for information about postpartum sexual desire. See Figure 4.

Figure 4. Tools Used to Find Information on Postpartum Sexual Desire



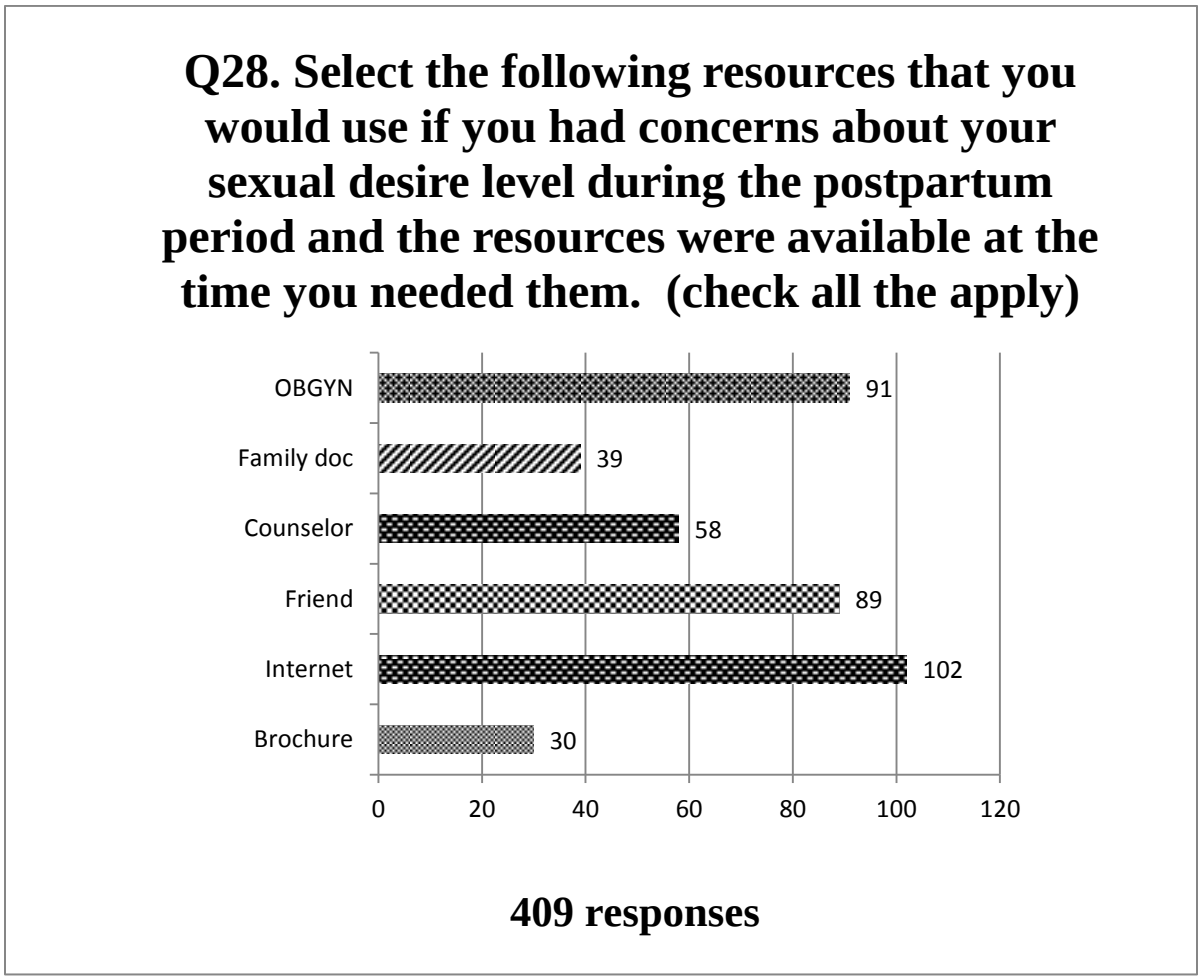
The same subjects were also unlikely to consult with anyone regarding their change in sexual desire (90 of 164 responses). When they did consult someone, it was most likely a friend (38) rather than a medical professional (19) or a mental health professional (6) or sex therapist (1). See Figure 5. Of the 54 individuals who did consult about their postpartum sexual desire, 35 found the consultation helpful. Individuals were permitted multiple answers.

Figure 5. Consultation for Postpartum Change in Sexual Desire Levels



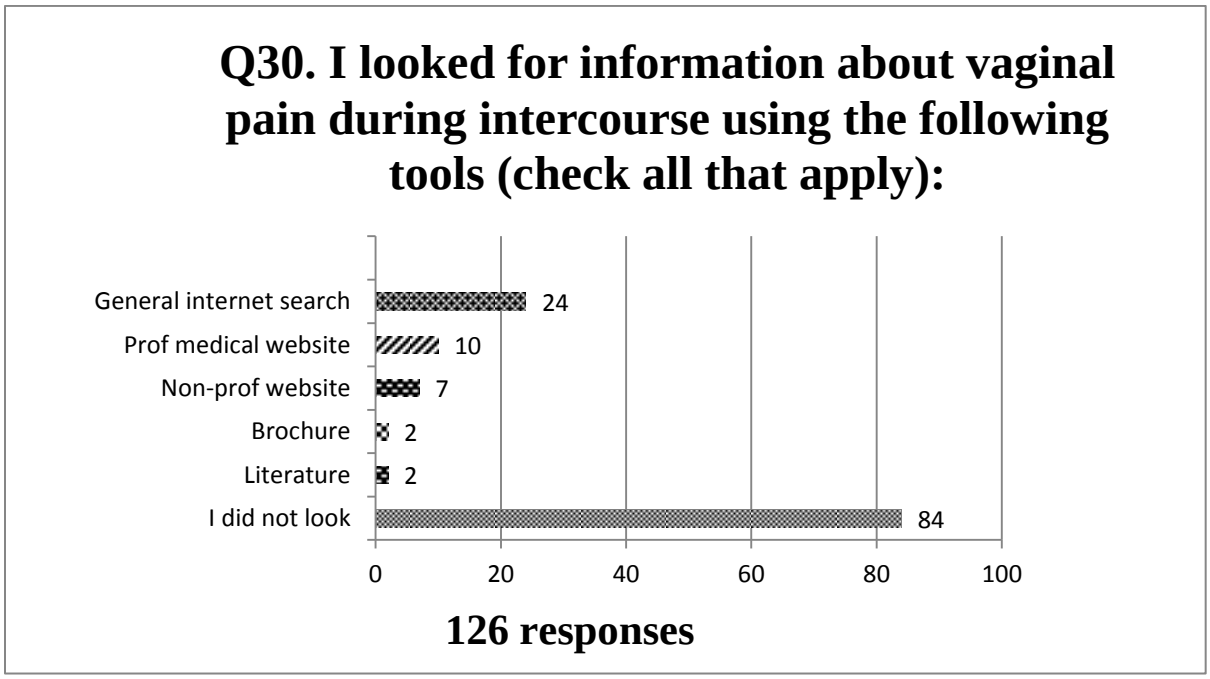
Subjects were then asked about what resources they would use if they had concerns about their sexual desire level and the resources were available. Since they were permitted multiple answers, 165 subjects provided 409 responses. See Figure 6.

Figure 6. Use of Available Resources for Concerns about Sexual Desire



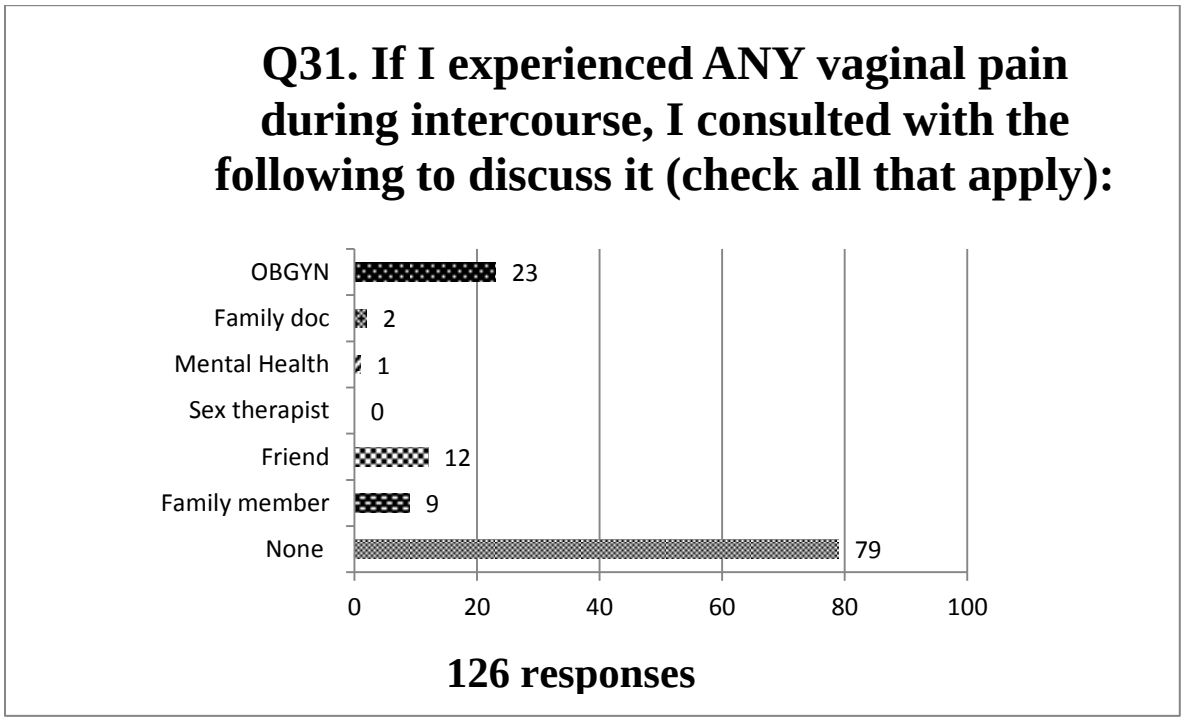
Subjects were asked if they experienced pain during vaginal intercourse during the postpartum period. 115 of 165 subjects indicated vaginal pain occurred at least once, with 15 stating it "always" happened. Since they were allowed multiple answers, the 115 subjects provided 129 responses to inquiry about where they sought information about vaginal pain. 84 responses indicated they did not look for information about this issue. A smaller group of responses (41) indicated they went to the Internet to find more information, with a general internet search (24) being the most common Internet-based tool. See Figure 7.

Figure 7. Tools Used to Find Information on Vagina Pain during Intercourse



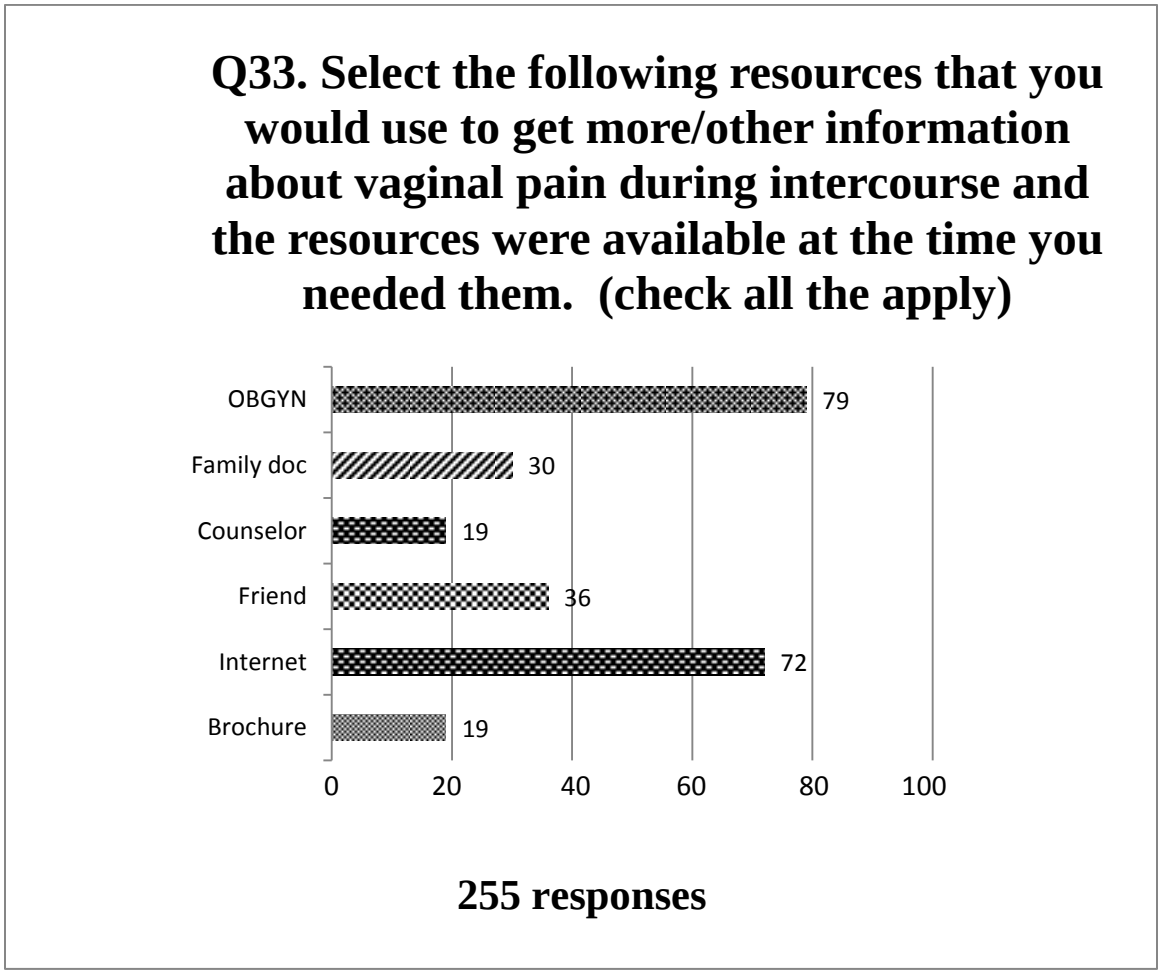
Since they were allowed multiple answers, the 115 subjects who experienced postpartum vaginal pain during intercourse provided 126 responses to inquiry about whom, if anyone, they consulted with regarding their pain. 79 of the 126 responses indicated there was no consultation See Figure 8. 23 returned to their obstetrician/gynecologist or maternity care provider for consultation.

Figure 8. Consultation for Vaginal Pain during Intercourse



Subjects were then asked about what resources they would use to get more/other information about vaginal pain during intercourse if the resources were available. Since they were permitted multiple answers, 114 subjects provided 255 responses. See Figure 9.

Figure 9. Use of Available Resources for Vaginal Pain during Intercourse



Subjects were then asked if they would be likely to use a brochure that would contain easy-to-read information about postpartum depression and sexuality. See Table 3. 130 of 165 respondents said they would.

Table 3. Use of a Brochure about Postpartum Depression and Sexuality

n=163

Q45. If you had a baby now, and you could easily find a brochure that has easy-to-understand information about postpartum depression and sexuality, would you read it?	
Yes	130
No	11
Unsure	20

Postpartum experience with partner

Participants were asked a series of questions to explore their interactions with their partner in regards to postpartum depression, change in sexual desire level, and changes to their body that may affect their sexuality. 94 subjects noted a change in their depression level from pre-pregnancy to postpartum. 60 subjects discussed the matter with their partner while 27 did not. The most common response for subjects who remained silent about depression was "I didn't know how to explain it" See Table 4.

Table 4. Reasons for Not Discussing Postpartum Depression with Partner

n=27

Q15. The reason I did not tell my partner about my postpartum depression: (choose the most appropriate answer)	
Embarrassment	1
I didn't know how to explain it	14
I didn't believe my partner would be able to help me.	6
I was concerned my partner would have a negative reaction.	6

Changes in sexual desire levels from pre-pregnancy to the postpartum period were common, with 146 of 180 subjects reporting a change. Of the 146 subjects, 132 said their sexual desire level was either "slightly lower" (48), "much lower" (59), or "I had no interest in having sex" (25). 77 participants with lower or non-existent sexual desire talked to their partners about it, 52 did not. Regardless of whether or not subjects had a dialogue with their partners about their change in postpartum sexual desire, 62 of 132 individuals said their partner was verbally supportive of the change, 27 said their partner was verbally critical. See Table 5.

Table 5. Perception of Partner Reaction to Change in Sexual Desire

n=141

I believe my partner had the following reaction to my lower sexual desire during the postpartum period or the period of time after the baby was born: (choose the most appropriate answer)	
No reaction	16
Unsure, my partner and I did not discuss it and I am unsure if it bothered my partner.	22
My partner was verbally supportive	62
My partner was verbally critical	27
None of the above	14

Participants' first sexual interaction following the birth of their baby was most likely (103 of 165) to occur between six weeks and three months after childbirth. 58 of 165 women felt pressured by their partner to have this initial postpartum sexual interaction. See Table 6. 141 subjects responded to the question, "I returned to pre-pregnancy levels of sexual desire." 44 respondents said they have never returned to pre-pregnancy levels, 36 said it took less than a year, 45 said it took between 1-2 years, 12 said it took more than two years, and 4 said the return occurred immediately.

Table 6. Pressure Experienced to have First Sexual Interaction after Childbirth

n=165

Q26. Considering your FIRST sexual activity following the birth of your child, did you feel pressured by your partner to have sexual intercourse before you were ready?	
No	104
Often	15
Once in a while	43
Unsure	3

Respondents were asked about whether they had concern that childbirth affected the structure of their vagina in a way that would affect their ability to enjoy intercourse and whether they had concern their partner would notice a difference in the structure or feeling of their vagina See Table 7. 59 of 163 subjects discussed the effect of childbirth on the structure or feeling of their vagina with their partner, while 104 did not.

Table 7. Concern about Effects of Childbirth on Vagina for Mother and Partner

n=163

Q34. Did you have concern that childbirth affected the structure of your vagina in a way that would affect your ability to enjoy sexual intercourse?	
Yes	54
No	105
Unsure	4
Q 35. Did you have concern that your partner would notice a difference in the structure or feeling of your vagina after childbirth?	
Yes	68
No	91
Unsure	4

Respondents were asked if they felt there was a change in how desirable they were to their partner after childbirth. 76 of 163 believed there was a change, 81 did not.

131 of 163 subjects reported breastfeeding during the postpartum period. Of those, 81 said that breastfeeding changed how they thought of their breasts in terms of sexual activity while 93 subjects said it changed how they used their breasts during sexual activity in the postpartum period. See Table 8.

Table 8. Effect of Breastfeeding on Ideas about and Use of Breasts in Sexual Activity

n=131

Q39. If you breastfed your baby, did breastfeeding change how you thought of your breasts in terms of sexual activity?	
Yes	81
No	49
Unsure	1
Q40. If you breastfed your baby, did breastfeeding change how you used your breasts during sexual activity in the 12 months after your baby was born?	
Yes	93
No	38
Unsure	0

Respondents were then asked if they experienced difficulty thinking of themselves as both a "mother" and "a sexual partner" during the postpartum period. 97 of 161 said it was an issue at least some of the time while 62 of 161 said it wasn't. See Table 9.

Table 9. Balancing Roles of Mother and Sexual Partner

Q44. During the 12-month postpartum period, I experienced difficulty thinking of myself as both a "mother" and a "sexual partner":	
None of the time	62
Some of the time	67
Most of the time	26
All of the time	4
Unsure	2

DISCUSSION

Discussion of findings

Like research conducted by Olsson et al. (2009), the findings of this survey suggest postpartum sexuality is challenging for women to discuss with their medical provider. While this survey did not delve into the motivations of subjects, the responses show behavior that may have been motivated by the delicate nature of sexuality. The responses of subjects regarding consultation about postpartum depression, sexual desire, and vaginal pain during intercourse indicate that participants were more likely to seek consultation about depression than their sexual problems. Those who experienced postpartum depression responded that seeking consultation with an obstetrician/gynecologist, friend, or family member was as likely as not seeking consultation at all. However, those experiencing a change in sexual desire level or vaginal pain during intercourse were much more likely to not seek consultation about their issue.

Barrett et al.'s (2009) study found that only 15% of postpartum women experiencing sexual problems consulted their maternity care provider. This survey showed differing consulting behavior based on the sexual issue. 23 out of 115 (20%) of subjects experiencing vaginal pain during intercourse went to see their maternity care provider about the problem. However, those experiencing a postpartum change in sexual desire were less likely to visit their provider (11 out of 143, 7%).

Inquiry about what tools subjects used to get more information about postpartum depression, sexual desire level changes, and vaginal pain during intercourse followed nearly the same pattern as consultation. It was most likely that participants did not look for information about their problem. However, when they did conduct internet searches, searches about

postpartum depression were more common than internet searches about sexual desire changes and vaginal pain.

The data collected suggests that access to appropriate resources is a barrier to postpartum women getting the care they desire. For example, the number of subjects who did not seek consultation for sexual desire level changes or vaginal pain during intercourse appears to be significant. However, when asked what resources they would use if the resources were available to them when they needed them, subjects' responses more than doubled.

Despite the significant presence of lower sexual desire and vaginal pain during intercourse, consultation with sex therapists or clinical sexologists was nearly non-existent. Sex therapist/clinical sexologist was cited only once out of 444 responses regarding consultation for all the survey's issues. McCarthy (2001) states individuals with sexual dysfunction are less likely to use a sex therapist than a traditional therapist, such as a marital therapist, due to non-sex therapists practicing in higher numbers and being more acceptable. In addition to McCarthy's assertions, due to the recent birth of a child, women in the postpartum period may consider any sexual changes to have a medical cause and, as a result, may be more likely to pursue consultation with a medically trained provider counselor, rather than a sex therapist, who do not typically have medical training. When measuring who subjects would consult with if they had access to resources when they needed them, the number of responses for counselor/sex therapist was 125 of 961, a much higher rate than the reports of actual consultation.

Nearly a third of subjects with concern about postpartum depression, sexual desire changes, and changes to their vagina that would affect sex did not share their concerns with their partner. More than half of subjects who didn't tell their partners about depression stated they remained silent because they didn't know how to explain it. Concern that their partner would

have a negative reaction was another notable response. These findings are supported by McIntosh's (1992) research that suggests postpartum women often chose to not inform their partners about depression due to fear of criticism and the stigma attached to being depressed. McIntosh's findings may also apply to subjects disclosing sexual concerns to their partner as 19 of 141 subjects in this survey said their partners were verbally critical about subjects' change in sexual desire and twice that many reported having partners who had no or unclear reactions to the change. Therefore, less than half of subjects received support from their partners.

Women who took this survey were likely to report difficulty conceptualizing themselves as both a mother and sexual partner during the postpartum period. In addition to the impact of childrearing responsibilities and body image on the balancing of these roles (Pastore et al., 2007), another contributing factor may be found in the responses to this survey's inquiry into the effects of breastfeeding on sexual activity. If participants were breastfeeding, this was likely to change how they thought of their breasts in terms of sex (81 of 131) and even more likely to change how they used them in sexual activity (93 of 131).

While this survey did not explore the interaction of postpartum depression and sexual problems, this should not be overlooked. Medical and mental health providers treating women with postpartum depression should make a habit of questioning patients about their sexual functioning. Sexual dysfunction may negatively impact their relationship with their partner, which may be associated with increased postpartum depression (Chivers et al. 2011).

Discussion of limitations

The snowball survey, while inexpensive and relatively easy to distribute, was not administered to a random sample of the American postpartum population. This prohibits the results of the survey from being truly representative of American postpartum women. The survey was passed on through respondents, originating with this researcher, located in Jacksonville, Florida and having many family and friends in Michigan. Thus, a disproportionate portion of the data was collected from the states of Florida and Michigan.

The survey, delivered electronically, was only available to women who have access to the internet. The results then exclude women who do not have this access. The respondents, being online when they took the survey, may also have been more likely to use online methods to research their sexual concerns rather than printed materials. This may have led to an overrepresentation of individuals who access sexual health information online than in a random sample of the postpartum population.

There was some attrition in number of participants as the survey progressed. For example, 200 subjects agreed to the Informed Consent but 197 filled out the demographic information. By the final question, number 44, 161 subjects participated. This may lead to the results not representing the experiences of all of the individuals who elected to take the survey.

Limiting answers to subjects' most recent birth in the event of having given birth multiple times may have prevented this survey from gathering the entire postpartum experience of individuals. If a participant had consulted with a professional following the birth of their first child but did not consult following the birth of their last child, the data would not reflect this information. Therefore, the data collected is representative of the participants most recent postpartum period rather than the totality of their postpartum experience.

Since parameters for participating in this survey included being female and having given birth at some point in their lives, many respondents (29%) were answering questions about their postpartum experience that happened over five years ago, with some subjects answering questions about experiences that occurred at least 30 years prior to taking this survey. Research conducted by Peace and Porter (2004) demonstrates that traumatic events persist in individual's memory while positive memories appear to fade over time and are subsequently less detailed and less vivid than traumatic memories. This suggests that individuals who experienced traumatic births and/or postpartum periods may be more reliable subjects than those who had positive experiences.

Finally, the respondents who elected to take the survey may be more likely to have experienced postpartum sexual dysfunction than those who did not elect to participate. This limitation is based on the assumption that an individual who experienced no postpartum sexual dysfunction may have less interest in taking a survey that doesn't seem relevant to their experience. As a result, the number of respondents who report experiencing postpartum sexual dysfunction may be higher in this study than a random sample of postpartum women.

CONCLUSIONS/ SUGGESTIONS FOR FUTURE RESEARCH

The findings of this research suggest that depression, decrease in sexual desire, and pain during vaginal intercourse are all common realities during the 12 months following childbirth. Despite the prevalence of these issues, women are not likely to seek help. While this survey did explore subjects' reasons for not discussing these concerns with their partners, it did not investigate reasons for not seeking help from professionals, friends/family, or online resources. Answers to questions about theoretical consultation regarding postpartum problems suggest that access to help plays a significant role in whether a woman seeks help for these problems as well as how many resources they access. Further exploration into women's reasons for not seeking consultation may provide insight into the help-seeking behaviors of postpartum women.

This research suggests when women seek consultation with medical or mental health professionals about postpartum sexual concerns, the women are likely to find the consultation helpful. Since many women frequently find themselves in the offices of obstetrician/gynecologists or maternity care providers for routine postpartum care, examination of specific details of patient/practitioner interaction, such as what caused consultation about these issues to occur or what prevented consultation from occurring, could provide further detail into facilitating factors or barriers to conversations about sexual problems.

Women in this survey indicated a desire for access to more resources should they have postpartum problems. The point of discharge from hospitals and birthing centers may be a good place to boost access to these resources. Distribution of simple educational materials and website addresses of accurate online resources is one way of making information available to the largest number of postpartum women. Providing a list of community referrals at discharge to

local professionals trained in mental health and sexual issues may also boost knowledge of and access to further resources.

APPENDIX 1

Informed Consent

This page is to help you know what our project is about and why we need your input.
Please read this consent document carefully before you decide to participate in this study.
You must be 18-years-old to participate.

Protocol Title: A Survey of Female Response to Postpartum Sexual Interaction

This is a completely voluntary and anonymous survey and questionnaire. Please take the time to consider if you would like to help with the research we are doing. At the end of this consent form you will be asked to agree or disagree to giving your consent to take this survey. **Your consent to participate in the survey will be time-stamped and recorded along with your responses**. The purpose of the survey and questionnaire for this research study is to investigate depression after your baby's birth and how women respond to sexual interaction they may experience in the 12-month postpartum period, after you have had your baby. The answers to the survey and questionnaire will be used in two ways. It will be used to educate doctors, nurses and health care professionals regarding what women experience sexually in the 12 month period postpartum or after you have had your baby. Also, it will be used as information in a paper for candidacy as a doctorate in philosophy. If you choose to participate, it is entirely voluntary and you will voluntarily complete an information questionnaire about things like your age and a brief survey about what happened to you. The time required to complete this survey is approximately 30 minutes. The possible risk to you could be thoughts, feelings, or emotional upset based on your interactive memory of those events during the 12 months postpartum that you experienced. If you do experience any thoughts, feelings of emotions that are upsetting to you, this researcher believes that you should seek counseling from a trained and experienced therapist. This is another risk that you may incur in the form of monetary investment in seeing a therapist to resolve any issues arising from your participation. You may experience relief because of participating in the study. Experiencing relief could be a benefit and it might open communication between you and others that might be a benefit; however, there are no other known direct benefits from participation in this study. We do not guarantee that you will have risks or benefits of any kind. Compensation, monetary or otherwise, will not be provided nor payments to you or others should you decide to seek help from a therapist as a result of your participation. Your identity and all information provided by you will remain completely anonymous. Your participation in this study is completely voluntary and there is no penalty for not participating. No one will know you participated unless you tell them you have done so. You have the right to withdraw from the study, or stop participating at anytime without any consequence from the researchers. As an alternative, you may just choose not to participate.

The researchers may stop the study at any time or remove people from the study for any reason they think is needed. An example might be that the study is no longer needed, or some answers given are not about sexual interaction after childbirth. You and others who participate have no control or input into decisions to stop, limit, or remove those who answer the survey. No individual information obtained from the survey will ever be made public. Your responses will

be stored electronically on the Survey Monkey secured server for one year and then they will be deleted. Your confidentiality will be protected in every way we are able to protect it.

Upon completion of this dissertation, you have the right to read it in its entirety online at esextherapy.com, the site for the American Academy of Clinical Sexology. You may find it by searching the site for my name.

If you have questions about the study, please contact me:

Noelle Pomeroy, MS, Doctoral Candidate, American Academy of Clinical Sexologists 3203 Lawton Road Suite 170 Orlando, FL 32803, noellepomeroy@hotmail.com.
Or, you can contact my advisor and committee chairperson:
Peggy Lipford McKeal, Ph. D. American Academy of Clinical Sexologists 3203 Lawton Road Suite 170 Orlando, FL 32803, ilisten@unlimitedpossibilities4u.com.

ELECTRONIC CONSENT: Please select your choice below.

Clicking on the "agree" button below indicates that:

• you have read the above information
• you voluntarily agree to participate
• you are at least 18 years of age

If you do not wish to participate in the research study, please decline participation by clicking on the "disagree" button.

- ☐ **Agree**
- ☐ **Disagree**

APPENDIX 2

Survey

Demographic Information about you: (please choose all that apply to you.)

1. Race:
   a) White/European American
   b) Black or African American
   c) Hispanic or Latino/a
   d) Asian/Pacific Islander
   e) Native American
   f) Mixed race
   g) Native American/Caucasian
   h) Other _____

2. Sexual Orientation:
   a) Heterosexual
   b) Gay/Lesbian
   c) Bisexual
   d) Asexual

3. Current age:
   a) 18-29
   b) 30-39
   c) 40-49
   d) 50-59
   e) 60 years and over

For the purposes of this survey, please answer the questions as if they were experiences following the birth of your <u>most recent child</u>. For example, if you have three children, please refer to the experiences following the birth of your last child.

4. My age during the birth of my last child:
    a) 13-17
    b) 18-24
    c) 25-29
    d) 30-34
    e) 35-39
    f) 40-49
    g) 50-59

5. I gave birth to a child within the last:
    a) 12 months
    b) 1-3 years
    c) 3-5 years
    d) 5-10 years
    e) Over 10 years ago

6. I had access to the internet during the 12-month period following the birth of my last child?
    a) Yes
    b) No

7. The birth of my child was:
    a) Vaginal with no episiotomy and no tearing of tissue at the opening of the vagina.
    b) Vaginal with no episiotomy but there was tearing of tissue at the opening of the vagina.
    c) Vaginal with episiotomy (cutting of tissue at the opening of vagina)
    d) Cesarean section (planned)
    e) Cesarean section (unplanned/emergency)

This section of the questionnaire is about DEPRESSION during the 12 months following the birth of your baby called the postpartum period.

8. During the 12-month postpartum period I would describe my depression level as: (choose the most appropriate answer)
    a) I was much more depressed than my pre-pregnancy depression level.
    b) I was a little more depressed than my pre-pregnancy depression level.
    c) No changes from my pre-pregnancy depression level.
    d) My depression was lower than my pre-pregnancy depression level.
    e) I did not experience any depression during this period.

If you answered C or E to question 8, please proceed to question 15.

9. I looked for information about postpartum depression using the following tools (check all that apply):
    a) General internet search (Google, Yahoo, other search engines)
    b) Professional medical website (WebMD, MayoClinic, other medical sites)
    c) Non-professional website (Mom blog, Cosmopolitan.com, other sites)
    d) Brochure obtained through medical provider
    e) Literature I purchased or borrowed (medical journal or self-help book)
    f) I did not look for information about postpartum depression.

10. I consulted with the following to discuss my postpartum depression (check all that apply):
    a) Obstetrician/gynecologist or maternity care provider
    b) Family doctor or primary medical care provider (MD, ARNP, PA)
    c) Mental Health Counselor, Psychiatrist or Psychologist
    d) Sex Therapist or Clinical Sexologist
    e) Friend
    f) Family member
    g) Other _____
    h) None

If you answered H to question 10, please proceed to question 12.

11. I would describe the consultation from those I spoke with about my postpartum depression as:
    a) Helpful
    b) Unhelpful
    c) Unsure

12. Did you tell your sexual partner about the postpartum depression you experienced?
    a) Yes
    b) No
    c) Unsure
    d) I did not have a sexual partner

If you answered A, C, or D to question 12, please proceed to question 14.

13. The reason I did not tell my partner about my postpartum depression: (choose the most appropriate answer)
    a) Embarrassment
    b) I didn't know how to explain it
    c) I didn't believe my partner would be able to help me.
    d) I was concerned my partner would have a negative reaction.
    e) Other _____

14. Select the following resources that **you would use *if* you were depressed** and they were available at the time you needed them. (check all the apply)
    a) Obstetrician/gynecologist or maternity care provider
    b) Family doctor or primary medical care provider (MD, ARNP, PA)
    c) Counselor or Sex Therapist
    d) Friend or family member
    e) Internet
    f) Brochure from doctor's office
    g) Other _____

This section of the questionnaire is about your INTEREST IN HAVING SEX during the 12 months after the birth of your baby.

15. During the entire 12-month postpartum period, after the birth of my baby, I would describe my sexual desire level (interest in having sex) as:
    a) Much higher than my pre-pregnancy sexual desire level.
    b) Somewhat higher than my pre-pregnancy sexual desire level.
    c) No changes from my pre-pregnancy sexual desire level.
    d) Slightly lower than my pre-pregnancy sexual desire level.
    e) Much lower than my pre-pregnancy sexual desire level.
    f) I had no interest in having sex.

If you answered C to question 15, please proceed to question 22.

16. I looked for information about postpartum sexual desire levels using the following tools (check all that apply):
    a) General internet search (Google, Yahoo, other search engines)
    b) Professional medical website (WebMD, MayoClinic, other medical sites)
    c) Non-professional website (Mom blog, Cosmopolitan.com, other sites)
    d) Brochure obtained through medical provider
    e) Literature I purchased or borrowed (medical journal or self-help book)
    f) I did not look for information about postpartum sexual desire levels.

17. I consulted with the following to discuss the change in my sexual desire levels during the postpartum period (check all that apply):
    a) Obstetrician/gynecologist or maternity care provider
    b) Family doctor or primary medical care provider (MD, ARNP, PA)
    c) Mental Health Counselor, Psychiatrist or Psychologist
    d) Sex Therapist or Clinical Sexologist
    e) Friend
    f) Family member
    g) Other _____
    h) None

If you answered H to question 17, please proceed to question 19.

18. I would describe the consultation from those I spoke with about my change in postpartum sexual desire as:
    a) Helpful
    b) Unhelpful
    c) Unsure

19. I told my sexual partner about the change in sexual desire I experienced?
    a) Yes
    b) No
    c) Unsure

20. I believe my partner had the following reaction to my lower sexual desire during the postpartum period or the period of time after the baby was born: (choose the most appropriate answer)
    a) No reaction
    b) Unsure, my partner and I did not discuss it and I am unsure if it bothered my partner.
    c) My partner was verbally supportive
    d) My partner was verbally critical
    e) None of the above

21. I returned to pre-pregnancy levels of sexual desire:
    a) I have not returned to pre-pregnancy levels of sexual desire.
    b) More than two years after the birth of my child.
    c) Between 1-2 years after the birth of my child.
    d) Between 6-12 months after the birth of my child.
    e) Less than 6 months after the birth of my child.
    f) Immediately

22. Did you have sexual intercourse during the 12 month period following the birth of your baby?
    a) Yes
    b) No

If you answered B to question 22, thank you for participating in this survey.

23. I had my FIRST sexual interaction after the birth of my baby starting:
    a) Before six weeks after the birth
    b) Between six weeks and three months after the birth
    c) Between three and six months after the birth
    d) Between six and 12 months after the birth

24. Considering your FIRST sexual activity following the birth of your child, did you feel pressured by your partner to have sexual intercourse before you were ready?
    a) Yes
    b) No
    c) Often
    d) Once in a while
    e) Unsure

25. How did the frequency of your sexual activity in the 12 month postpartum period, after the birth of your baby, compare, on average, to your pre-pregnancy sexual activity?
    a) I was much less sexually active.
    b) I was slightly less sexually active.
    c) There was no change.
    d) I was slightly more sexually active.
    e) I was much more sexually active.
    f) I was not sexually active.

26. Select the following resources that you would use *if* you had concerns about your sexual desire level during the postpartum period and the resources were available at the time you needed them. (check all the apply)
    a. Obstetrician/gynecologist or maternity care provider
    b. Family doctor or primary medical care provider (MD, ARNP, PA)
    c. Counselor or Sex Therapist
    d. Friend or family member
    e. Internet
    f. Brochure from doctor's office
    g. Other _____

This section of the questionnaire is about VAGINAL PAIN DURING INTERCOURSE that may have occurred within 12 month period after the birth of your baby.

27. During the 12-month postpartum period, I experienced pain during vaginal intercourse: (choose the most appropriate answer)
    a) Always
    b) Some of the time
    c) A few times
    d) Once
    e) Never

If you answered E to question 27, please proceed to question 32.

28. I looked for information about vaginal pain during intercourse using the following tools (check all that apply):
    a) General internet search (Google, Yahoo, other search engines)
    b) Professional medical website (WebMD, MayoClinic, other medical sites)
    c) Non-professional website (Mom blog, Cosmopolitan.com, other sites)
    d) Brochure obtained through medical provider
    e) Literature I purchased or borrowed (medical journal or self-help book)
    f) I did not look for information about vaginal pain during intercourse

29. If I experienced ANY vaginal pain during intercourse, I consulted with the following to discuss it (check all that apply):
    a) Obstetrician - gynecologist or maternity care provider
    b) Family doctor or primary medical care provider (MD, ARNP, PA)
    c) Mental Health Counselor, Psychiatrist or Psychologist
    d) Sex Therapist or Clinical Sexologist
    e) Friend
    f) Family member
    g) Other
    h) None

If you answered H to question 29, please proceed to question 31.

30. I would describe the consultation with those whom I consulted with about the vaginal pain during intercourse as:
    a) Helpful
    b) Unhelpful
    c) Unsure

31. Select the following resources that **you would use to get more/other information** about vaginal pain during intercourse and the resources were available at the time you needed them. (check all the apply)
    a) Obstetrician/gynecologist or maternity care provider
    b) Family doctor or primary medical care provider (MD, ARNP, PA)
    c) Counselor or Sex Therapist
    d) Friend or family member
    e) Internet
    f) Brochure from doctor's office
    g) Other _____

This section of the questionnaire is about YOUR PERCEPTION OF YOUR BODY during the 12 month period after the birth of your baby.

32. Did you have concern that childbirth affected the structure of your vagina in a way that would affect your ability to enjoy sexual intercourse?
    a) Yes
    b) No
    c) Unsure

33. Did you have concern that your partner would notice a difference in the structure or feeling of your vagina after childbirth?
    a) Yes
    b) No
    c) Unsure

34. Did you discuss the effect of childbirth on the structure or feeling of your vagina with your partner?
    a) Yes
    b) No
    c) Unsure

35. After the birth of your baby, did you think there was a change in how desirable you were to your partner?
    a) Yes
    b) No
    c) Unsure

36. Did you breastfeed your baby?
    a. Yes
    b. No

If you answered B to question 36, please proceed to question 39.

37. If you breastfed your baby, did breastfeeding change how you thought of your breasts in terms of sexual activity?
    a) Yes
    b) No
    c) Unsure

38. If you breastfed your baby, did breastfeeding change how you used your breasts during sexual activity in the 12 months after your baby was born?
    a) Yes
    b) No
    c) Unsure

39. Did you have a cesarean section?
    a. Yes
    b. No

If you answered B to question 39, please proceed to question 42.

40. If you had a cesarean section, you personally think your cesarean section scar makes you:
    a) More attractive
    b) Less attractive
    c) I think my scar has no effect on my attractiveness.

41. If you had a cesarean section, how do you think about your cesarean section scar in relation to your desirability to <u>your partner</u>?
    a) I believe my scar makes me more desirable to my partner.
    b) I believe my scar has no effect on my desirability to my partner.
    c) I believe my scar makes me less desirable to my partner.

42. During the 12-month postpartum period, I experienced difficulty thinking of myself as both a “mother” and a “sexual partner”:
    a) None of the time
    b) Some of the time
    c) Most of the time
    d) All of the time
    e) Unsure

43. If you had a baby now, and you could easily find a brochure that has easy-to-understand information about postpartum depression and sexuality, would you read it?
    a) Yes
    b) No
    c) Unsure

Thank you for your participation in this survey.

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