

Abstract

Title of Dissertation: Seeking Help for Postpartum Depression: The Behavioral Model of Health Service Use as a framework for predicting Treatment Utilization for Postpartum Depression

Rena Bina, Doctor of Philosophy, 2011

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Postpartum depression is a serious disorder that affects many women globally, as well as their children and entire families. Although various treatment methods for postpartum depression have been found to be helpful, very few women actually utilize these treatments. The Jewish Israeli ultra-orthodox community (48.5% of the sample) is known for its utmost under-utilization of mental health services, therefore putting the ultra-orthodox postpartum depressed women at high risk for going untreated. The reasons for the under-utilization of treatment for postpartum depression are unclear, and deserve a close investigation. The Behavioral Model of Health Service Use was used as a comprehensive framework for predicting and explaining seeking help for postpartum depression.

One thousand and fifty nine (1059) women who were recruited from a large hospital in Jerusalem, Israel one to two days postpartum completed the baseline survey; 805 (76%) of them participated at the 6-week follow up, of which 12% ($N= 94$) screened positive for postpartum depression symptoms and were referred for help. Of the 88 referred for help, 69% utilized some sort of help (34% utilized professional help and 90% utilized non-professional help); 31% of the women did not utilize any form of help. Predictors of screening positive for postpartum depression at the 6-week follow-up included being

older, having fewer previous pregnancies, a lower income, and a history of depression. Levels of postpartum depression symptomatology significantly decreased from 6-weeks to 6-months postpartum, overall. Utilization of non-professional help and lower postpartum depression symptomatology at 6-weeks postpartum predicted lower depression symptoms at the 6-month follow-up. Finally, confidence in mental health professionals and higher level of postpartum depression symptomatology predicted utilization of professional help. Several implications for future research, theory building and social work practice are provided.

Seeking Help for Postpartum Depression: The Behavioral Model of Health Service Use
as a framework for predicting Treatment Utilization for Postpartum Depression

by
Rena Bina

Dissertation submitted to the faculty of the Graduate School
of the University of Maryland Baltimore in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
2011

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Acknowledgements

I would like to express my gratitude to many people who have helped me through the process of my doctoral studies and research. Without their support and guidance I could not have successfully completed my dissertation.

First and foremost thank you to God, who gives his wisdom to humans, for affording me the opportunity to research this vital topic.

I wish to thank the Fahs-Beck Fund for Research and Experimentation for their generous financing of this dissertation research.

My deep appreciation is extended to my dissertation chair, Dr. Donna Harrington, who provided me with endless support, guidance, knowledge, encouragement and inspiration. Donna served not only as my dissertation chair but also as a mentor and a role model, who at every point on this long journey always had something positive to say to encourage me. I cannot imagine finishing this dissertation without her. I would also like to thank my committee members, Drs. Bruce DeForge, Michael Lindsey, Ed Pecukonis, and Debra Scrandis for their time, flexibility, and for their belief in my capabilities.

There are no words to convey the depth of my gratitude to my wonderful husband, Moshe, who provided me with endless guidance, encouragement, support and love. Without his everlasting belief in me and his sharing, whether with taking care of the kids or the household chores, or with dissertation-related ideas, I could have never reached the end of this journey and the goals I have in life.

My amazing kids, Ari, Uri, Efrat, Ayelet, and Aviya deserve my special thanks for being understanding at periods when I needed to spend long hours on writing my dissertation or traveling, and for being so supportive of my study process.

I would also like to thank my parents from the bottom of my heart. Thank you to my mother, Adele, for the countless hours she put into my dissertation, whether with assisting me in the study process or taking care of my kids. There is no other person I know who is so dedicated to her family and is willing to help whenever needed. She is a shining example for me of dedication and selflessness, which I will always treasure and try to emulate.

Deepest thanks also to my father, Stanley, for helping me initiate my research, for always believing in me, being proud and supportive, and providing me with ideas and knowledge. I also wish to thank my sister, Chana, for helping me in the study process, and always being available for help.

Special thanks to my in-laws, Aharon and Malke, for their never-ending backing and trust in my abilities. My doctoral journey could not have been accomplished without their continuous help and the love that they showered on me and my family.

I deeply thank the Milikowsky family, especially Shaya and Subbi, whose help and support enabled me to focus on my doctoral studies and succeed in them.

My expression of sincere gratitude is extended to Sh'arei Tzedek hospital in Jerusalem, Israel, for allowing me to do my research in their facility. I would especially like to thank Prof. Yonatan Halevi and Prof. Arnon Samuelloff for allowing me to gain access into the hospital and maternity department. Thank you also to Dr. Yehuda Van-

Dike for guiding me through the Helsinki Committee requirements, and to Yael Faraji for her amazing assistance.

I wish to thank Ezer Mizion, the organization where I work, for believing in me and for allowing me to be flexible with my work hours in order to finish my dissertation.

Finally, I would like to express my sincere appreciation to all the women who participated in this study. Their time, effort and insights will always be cherished.

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CHAPTER I: BACKGROUND, LITERATURE REVIEW, AND THEORY

Background

Postpartum depression is a serious disorder with potentially devastating personal and familial consequences. Timely treatment is crucial; however very few postpartum women actually receive help for their depression. Not many studies have focused on seeking help for postpartum depression, limiting the capability of fully understanding this phenomenon and ensuring treatment for all those in need. The Israeli Jewish ultra-orthodox community, which is the focus of this dissertation, is known for its utmost under-utilization of mental health services (Greenberg & Witztum, 2001), therefore putting the ultra-orthodox postpartum depressed women at a higher risk of going untreated. Adding to this risk is the fact that this community is characterized by a high birth rate (Auslander, 2003) where untreated postpartum depression might linger on from birth to birth, therefore enhancing the negative effects that postpartum depression has on the woman, her children, and her entire family. Furthermore, cultural norms and attitudes play a central role in the daily lives of ultra-orthodox people, and their impact on seeking help is unclear. Finally, the ultra-orthodox community is known for its strong communal support (Dankner, Goldberg, Fisch, & Crum, 2000) and the central role the rabbi, the religious leader, plays in the life of the people (Greenberg & Witztum, 2001). Therefore, it is possible that women may be utilizing these non-professional support sources instead of turning to the professional mental health system.

The purpose of this prospective study is to examine factors that may enhance the likelihood that ultra-orthodox and non-ultra-orthodox woman with postpartum depression

will seek and utilize help. The Behavioral Model of Health Service Use (Andersen & Newman, 1973) coupled with elements from the Network-Episode model (Pescosolido, 1991) serves as a framework for understanding and predicting the utilization of mental health services and/or non-professional services for postpartum depression.

Effects of Postpartum Depression

Clinicians have always associated the post partum period with mood disturbances. This linkage received official psychiatric recognition in 1994, when the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (American Psychological Association [APA], 1994) defined major depression with postpartum onset as a non-psychotic episode of depression beginning within 4 weeks of giving birth (Miller, 2002). Some investigators claim that the onset of postpartum depression could start as early as 2 weeks postpartum and continue up to one year (Amankwaa, 2003), or even past the first postpartum year (Cox, Holden, & Sagovsky, 1987).

Postpartum depression affects the quality of life of mothers, has negative consequences for the emotional, behavioral, and cognitive functioning of their infants, and threatens the healthy functioning of the entire family (Sobey, 2002). Mothers with postpartum depression commonly have thoughts of harming themselves or their children, exhibit fewer positive emotions and more negative emotions towards their children, are less responsive and less sensitive to infant cues, are less emotionally available, have a less successful maternal role attainment, and have infants who are less securely attached (Hagen, 1999).

Evidence shows that this mood disorder not only has adverse effects on maternal-infant interaction during the first year of age, but may also have long-term effects on

children over the age of one year, as well as on the mothers themselves (Beck, 2002). For the mother with postpartum depression, 25% to 50% have episodes lasting 6 months or longer (Beck, 2002), and they are highly likely to experience future episodes of depression (Dennis, 2004), with at least one third of women having a recurrence of symptoms after another delivery (Epperson, 1999). For her children, a mother's ongoing depression can contribute to emotional, behavioral, cognitive, and interpersonal problems later in life (Miller, 2002). Postpartum depression also has an effect on the couple's relationship; there is an increase in marital discord and conflict, and men may become depressed when their wives or partners have postpartum depression (Burke, 2003).

Prevalence, Diagnosis, and Treatment of Postpartum Depression

The prevalence of postpartum depression is estimated at 13% (O'Hara & Swain, 1996); with most studies indicating prevalence in the range of approximately 10% to 20% (Andrews-Fike, 1999; Epperson, 1999; Heh, Coombes, & Bartlett, 2004; Miller, 2002). Sobey (2002) claimed that due to the fact that many women with postpartum depression are not detected, the prevalence rates of women with postpartum depression may be underestimates.

Despite multiple contacts with healthcare providers during the postpartum period, many women with postpartum depression are undiagnosed and untreated (Driscoll, 2006). In one study of prenatal and postpartum depressed women, 77% of the sample did not attend an initial mental health appointment (Acri Cavaleri, 2005). In another study, only 47% of women with postpartum depression sought help for their condition, and only half of those sought help from professionals; the rest sought help from family and friends (McIntosh, 1993). Weissman, Feder, Pilowsky et al. (2004) reported in their study that

only 49% of women who felt seriously depressed after recently giving birth sought mental health professional help for their depression. Routine screening for postpartum depression, usually at the 6 week postpartum visit, has been shown to be an effective way of detecting women with elevated postpartum depression symptoms (Andrews Horowitz & Cousins, 2006; Georgiopoulos, Bryan, Yawn, Houston, Rummans, & Therneau, 1999; Sobey, 2002). However, even women who are detected through screening as being at risk for postpartum depression do not always seek help even if they are referred and encouraged to do so (Andrews Horowitz & Cousins, 2006). In their study, Andrews Horowitz and Cousins found that at 3 and 4 months postpartum only 12% of women who screened positively for postpartum depression and were encouraged by the research team to contact their primary care practitioners for evaluation and referral to treatment actually received psychotherapy.

Various treatment methods- such as individual and group psychotherapy, and pharmacological treatments- have been shown to be effective in the treatment of postpartum depression (Driscoll, 2006). Delay in treatment has long-term negative consequences: it puts women at risk for recurrent and/or chronic depression (Andrews-Fike, 1999) and leads to higher levels of child behavior problems (Brennan, Hamman, Andersen, Bor, Najman, & Williams, 2000). In addition, delay in treatment has an economic effect as well. Dennis (2004) compared health care utilization of depressed and non-depressed postpartum Canadian women and found that women with postpartum depression utilize health care services (i.e. family physician/ public health nurse/ medical walk-in clinic/ emergency room) to a much higher degree than non-depressed postpartum women.

Due to the adverse effects of postpartum depression and to the low rates of seeking help, it is important to identify factors that will promote utilization of services for postpartum depression in order to enhance coping and reduce postpartum depressive symptomatology. The question of why women with postpartum depression do not seek help remains unclear, and the focus of this dissertation is, therefore, on factors that may enhance seeking help for postpartum depression. In the next section the importance of this topic to the field of social work will be discussed, followed by a review of the literature and of its limitations.

Relevance of the Research to Social Work

Social workers are involved with mothers in a variety of settings (Gruen, 1990), and have an appreciation and understanding of the postpartum context for mothers and their families (Walther, 1997). This puts them in a position to offer an array of interventions for postpartum depression including prevention, education, intervention, and referrals, as needed, to other professionals. Moreover, empowerment, which is a cornerstone of the social work profession, is of essence when dealing with postpartum depressed women due to the importance of increasing the rates of the women's treatment utilization.

One setting in which social workers come across women with postpartum depression is child protective services. In a study carried out in the Children's Aid Society of London and Middlesex (CAS), a non-profit organization that protects children from physical, sexual, and emotional abuse and neglect, the investigators found that postpartum depression doubled during the years 1995-2001, and was related to children being admitted to CAS care (Leschied, Chiodo, Whitehead, & Hurley, 2005). Awareness

of postpartum depression is, therefore, extremely important for social workers in order to be able to detect those women who have postpartum depression, and make sure they receive treatment.

Other settings in which social workers come in contact with postpartum women are hospitals and obstetrician/gynecologist clinics. In these settings social workers can offer screenings to assess women for postpartum depression, as well as offer information and education for women about postpartum depression (Gruen, 1990). These acts can assist in enhancing treatment rates.

Social workers can also develop community awareness of postpartum depression by educating professionals (Gruen, 1990) and community leaders. This can promote the professionalism of social workers, as well as treatment rates. Education is important also in light of the fact that many women experience relief when they are in therapy with a social worker who is knowledgeable about postpartum depression (Walther, 1997). Therefore it seems reasonable that women will be more likely to enter and continue treatment when they know that they are treated by a social worker knowledgeable of their specific condition.

Another beneficial contribution social workers make in the community is through developing support groups for women with postpartum depression. A support group provides an accepting, supportive environment in which participants can share their experiences and assist each other in coping with their depression (Fairchild, 1995). Social workers should also be aware of the low rates of utilizing services, and try to promote access to support groups.

Literature Review

In order to find literature on the topic of seeking help for postpartum depression an electronic literature search was conducted using PsychInfo, PubMed, Social Work Abstracts, EBSCOHost, CINAHL, and Medline. Using the terms “postpartum depression”, “postnatal depression”, “seeking help”, “access”, “utilization”, “treatment”, “motivation”, “barriers”, “resistance”, and “attitudes” yielded 18 articles. Nine of the articles specifically examined the issue of seeking help for postpartum depression (Abrams, Doring, & Curran, 2009; Andrews Horowitz & Cousins, 2006; Bliszta, Ericksen, Buist, & Milgrom, 2010; Chisholm, Conroy, Glangeaud-Freudenthal et al., 2004; Lau & Wong, 2008; McCarthy & McMahan, 2008; McGarry, Kim, Sheng, Egger, & Baksh, 2009; McIntosh, 1993; Sword, Busser, Ganann, McMillan, & Swinton, 2008); five studies examined barriers to care for perinatal (prenatal as well as postpartum) women (Acri Cavaleri, 2005; Edge & MacKian, 2010; Goodman, 2009; Smith, Shao, Howell et al., 2009; Song, Sand, & Wong, 2004); one study examined policies that may create barriers to help seeking (Sobey, 2002); and three articles were descriptive in nature, and contained reasons for why women do not seek treatment for postpartum depression, based on the authors’ experiences as practitioners (Andrews-Fike, 1999; Epperson, 1999; Ugarriza, 2004).

Studies of Seeking Help for Postpartum Depression

Abrams et al. (2009) investigated barriers to formal help seeking for postpartum depression (PPD) symptoms among low-income ethnic minority mothers. They conducted a qualitative study with a grounded theory approach, using individual interviews and focus groups as a means for collecting data. They recruited 37 participants

from 3 groups: low income ethnic minority mothers with at least three EPDS symptoms occurring in the past year (N= 14); low income ethnic minority mothers as community key informants (N= 11); and service providers (such as nurse midwives and social workers) who work with low income new mothers (N= 12). The mothers were recruited from three Woman, Infant, and Children (WIC) federal nutrition programs.

Among the group of mothers who experienced postpartum depression symptoms no one utilized formal mental health services; instead they preferred self-help practices (such as prayer, and exercise and nutrition). They turned to family or friends only when their symptoms worsened, and some turned to health care providers after their close ones advised them to do so.

The barriers to seeking formal help that emerged in the results included attitudinal and instrumental barriers. The attitudinal barriers included the tendency of the mothers to minimize and normalize their symptoms, and therefore not think they have to turn for help; fear of stigma, of being labeled as “crazy”; perceived attitudes of family, friends and health care providers that most women are stressed after having a baby, and that most likely their difficulties will go away on their own; past negative experiences with mental health providers that were perceived as uncaring because of their initial recommendation of medication instead of actually listening to the mother’s difficulties; and cultural barriers to seeking formal help that included the norm of “familism” in the Latina group, which prohibits discussion of mental illness with outsiders, and the notion of having to be strong and self-reliant, as expressed in the African American group.

The instrumental barriers included financial strains (most women had health insurance but weren’t sure it covered mental health services); and lack of knowledge of

services (women didn't know what services are out there that can help them with PPD symptoms). Service providers added that lack of child care and transportation serve as barriers to utilizing formal mental health care, in addition to their own barriers, which included difficulty to differentiate difficult life circumstances of the mothers from postpartum depression symptoms, lack of accessible mental health services, and prioritizing the health and well being of the children rather than the mother's mental health, due to stressed and resource-deprived practices.

Similar findings were found in Sword and colleagues' (2008) study exploring help seeking among women after public health nurse referral for probable postpartum depression. They used a qualitative descriptive approach to their study based on a sociological framework of health service utilization, which basically acknowledges service use behavior as influenced by personal and situational factors and by health service delivery characteristics. Women were recruited from a local public health unit's Healthy Baby, Healthy Children Program in Ontario, Canada. In this program, which promotes healthy child development, all new mothers are screened for postpartum depression using the Edinburgh Postnatal Depression Scale (EPDS) and are offered a home visit by a public health nurse. Women were eligible for participating in the study if they scored 12 or above on the EPDS and/or answered positive on the self-harm related question. Eighteen (18) women participated in the study, and data were collected 4 weeks after screening for postpartum depression using in-depth semi structured telephone interviews. Participants were, on average, 8 weeks postpartum at the time of the interview. Content analysis was used and coding schemes were derived directly from the data.

The themes that were identified reflected three levels of influence: individual, social network, and health care system. At each level specific barriers to seeking help emerged. Individual level barriers to seeking help included normalizing symptoms, often attributing depressive symptoms to normal adjustment to motherhood; limited understanding of what postpartum depression is, therefore not understanding that emotional lability could be a sign of depression and professional help should be sought; belief that symptoms will improve, therefore delaying treatment and often engaging in self help care; discomfort discussing possible depression with care providers; and fear of being negatively judged and of children being taken away. Individual level facilitators to seeking help included awareness of symptoms, and not feeling like oneself.

Social network level barriers to seeking help included family and friend's normalizing of women's symptoms; and limited understanding of what postpartum depression is and therefore not knowing how to help the depressed woman. Social network level facilitators to seeking help included encouragement given by family and friends to seek help, and sometimes even reliance on close ones to be the ones to make the decision to seek help; and family and friends' expressions of worry and concern.

Health care system level barriers included health care providers normalizing symptoms and not attributing them to depression; offering unacceptable interventions, mainly medication; and disconnected care pathways, where care providers were unaware of treatment that was offered by other care providers, causing the woman to feel that care was fragmented. Health care system level facilitators included having established and supportive relationships with health care providers who facilitated mental health care seeking; health care providers offering outreach and follow up; legitimization of

postpartum depression by health care providers, which was reassuring to women; and being referred for mental health treatment in a timely manner.

Bliszta et al. (2010) examined how women's experiences of postpartum depression influence their attitudes and beliefs and their choice to seek help. They conducted a qualitative study using focus groups and analyzed the data using an interpretative phenomenological approach. Forty women were recruited from private outpatient depression treatment programs and from public community-based mutual support programs in Australia. There was no mention as to how depression was assessed and how long after birth or after diagnosis the focus groups took place.

Barriers to seeking help that women identified included lack of sleep, discomfort from delivery complications, lack of motivation, inability to think logically, changes in perception of body images, difficulty in accessing information about PPD online, lack of a 24-hour PPD support line, long waiting time for accessing telephone support lines, lack of continuity between prenatal and postnatal services, lack of cohesion between the private and public sector services, perceived inappropriateness of support services, and their inability to distinguish between normal emotional adjustment to parenthood and being "depressed", therefore not perceiving their condition as one that requires professional help

Family attitudes toward seeking professional help also had an impact on women's utilizing help. Having a family with a negative attitude toward help seeking and with a perception that it's the role of the family to help with difficulties served as barriers to seeking help. In addition, health care provider's attitudes were perceived by women as a

possible barrier to seeking mental health support. Health professionals' tendency to normalize or dismiss symptoms of depression served as a barrier to seeking help for PPD.

McCarthy and McMahon (2008) examined factors that influence women's decisions to seek and accept treatment for PPD, and factors that influence ongoing engagement in treatment. Fifteen (15) women diagnosed with PPD by a clinical interview were recruited from a community mental health service in New Zealand. All women had received between 3 to 12 months of treatment, which included home visits by a community mental health nurse and practical help at home. In addition, some women received individual or group counseling at the center and they all had taken anti-depressant medication. Women were interviewed and data were analyzed using modified analytic induction, which is derived from the grounded theory method.

Two themes were found with regard to barriers of seeking help. First, confusion between "normal" feelings of distress and exhaustion and an impairment in their functioning that justifies seeking help served as barriers to seeking help and therefore attaining help was delayed. Women realized that they had depression only when they were later identified as depressed by a health professional. Second, stigma and sense of shame served as barriers to seeking help, because women did not disclose their distress to others, and therefore couldn't know if what they were feeling was normal or not. Two factors that enhance the likelihood to utilize treatment were described: the fact that women reach a crisis point and that referral is made by someone else (a relative, general practitioner, etc.).

Chisholm et al. (2004) reported on the adaptation and piloting of a health service utilization measure, the Client Service Receipt Inventory (CSRI; Beechman & Knapp,

2000), for use in studies of postpartum depression. They recruited women from antenatal clinics or classes in seven European centers, and 296 participants agreed to take part in the research. In order to screen for postpartum depression symptomatology the investigators used a modification of the research version of the Structured Clinical Interview for DSM-IV Axis I disorders for use with non-patient populations (SCID-I/NP; First et al., 1996). Chisholm et al. were particularly interested in examining access to appropriate health and mental health care, and the actual uptake and cost of service provision for women with postpartum depression. They also examined barriers to health and mental health services, and provided incidences of a number of commonly expressed barriers to accessing services, including concerns about medication side effects, perceived lack of quality of service providers and the responsiveness of those providers to their needs, cost of care, stigma, lack of time, and inability to find a child caretaker. Interestingly women in different cities expressed different barriers. For example, the most expressed barrier to care in Dublin was lack of provider responsiveness, whereas in London it was concern with medication side effects.

McIntosh (1993) provided incidences of seeking help for postpartum depression from various care sources, and anecdotal descriptions of barriers to seeking help from these sources. His study was part of a larger study in which 60 first time mothers were randomly selected from three Glasgow antenatal clinics. Presence of postpartum depression was determined if a woman reported experiencing a depressed mood for a period of at least 14 days at any stage after the first postpartum week. Thirty eight of the women reported having depression, and took part in McIntosh's study. Only 18 (47%) out of these 38 women sought help. The sources of help divided more or less equally

between professionals (in 14 cases) and family and friends (in 16 cases), with some seeking help from more than one source.

Two main reasons were given by participants as to why they were reluctant to seek help from professionals. First, 20 (52.6%) mothers claimed that professional help was not a relevant solution to their problem. McIntosh (1993) suggested that this may be due to the fact that many women tended to perceive their depression as caused by external social and economic pressures. Therefore professionals weren't perceived as those who could help them. Second, women were afraid of being labeled as mentally ill and regarded as unfit mothers, and therefore did not want to seek help. Women were also reluctant to turn to family and friends, because they were too embarrassed and ashamed, feeling that it would be a sign of personal inadequacy and failure on their part.

The women in McIntosh's (1993) study who sought professional help usually did not really believe that treatment would help, and they did so as a last resort because their normal functioning had become too impaired. In terms of following up with treatment, when professional help was in accord with the women's own perception of her depression and its causes, then professional advice was appreciated and followed. However, most of the women who sought professional help were not satisfied with some aspect of the help they received. The reactions of those who sought help from family and friends ranged from perceiving it as extremely supportive to perceiving it as indifferent or even hostile.

Lau and Wong (2008) explored how the traditional Chinese value of "face" (the positive social value a person claims for herself by the line others assume she has taken) affects early postpartum depressed women's willingness to seek help, and how these two

factors are associated with early PPD symptoms. They recruited women from postnatal wards in a Hong Kong hospital two to five days postpartum. Twelve hundred (1200) women answered a demographic questionnaire; the EPDS, with scores above 9 indicating presence of postpartum depression symptoms; the Protective and Acquisitive Face Orientation short form scale; and a question assessing the willingness to seek help from formal or non-formal (family and friends) sources. Lau and Wong found that both depressed and non-depressed women preferred to seek help from non-formal sources. In addition, depressed women who had concern for “face” with regard to getting ahead through social achievement were less willing to seek help. This type of woman would try her best to impress others, and not reveal her weakness, in this case her need to get help.

Andrews Horowitz and Cousins (2006) were interested in determining mental health treatment rates at 3 and 4 months postpartum for women who screened positive for postpartum depression symptomatology at 2 to 4 weeks postpartum, and to determine whether mental health treatment rates were associated with postpartum depression symptom severity. They performed a secondary data analysis on data from a study in which 1215 women were recruited while hospitalized after giving birth. Those who agreed to participate were contacted 2 to 4 weeks later and were screened for postpartum depressive symptomatology using the Edinburgh Postnatal Depression Scale (EPDS; Cox et al., 1987). Scoring above 12 indicated significant depressive symptoms. The study focused on the 117 women who screened positively for depression and who participated in all assessments of the clinical trial. At 2, 3, and 4 months postpartum, women were screened again for presence and severity of postpartum depression symptoms using the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996).

This study by Andrews Horowitz and Cousins (2006) was one of the two found in which the investigators based their choice of variables on theory. Their theoretical framework was based on two sources: the Agency for Healthcare Research and Quality (AHRQ) analytic framework for postpartum depression treatment outcomes (Gaynes et al., as cited in Andrews Horowitz and Cousins, 2006) and Orem's (1995) conceptualization of self-care agency. The AHRQ analytic framework for postpartum depression treatment outcomes suggests that there is a pathway to treatment that begins with the identification of a cohort of pregnant or postpartum women with an unknown mood state and moves to symptom screening. Women with positive symptoms in screening are assigned to interventions, followed by a postpartum depression evaluation. However, if women do not move to an intervention due to barriers, then symptom reduction, which is a desired outcome, is blocked. Orem's conceptualization of self-care agency looks at a person's ability for self-care. Self-care is composed of foundational capability (such as genetic factors), power components (such as interaction skills that allow the person to engage in self-care), and operational capability (such as being able to judge personal ability to engage in self-care activities).

The low treatment rates (15.3% at three months postpartum and 17.9% at four months postpartum) in their study were viewed in light of the theoretical framework. Andrews Horowitz and Cousins (2006) concluded that postpartum depression might have affected the women's self-care ability, which might have been manifested by their inability to seek follow up treatment or evaluation. The authors also provided more reasons for why they thought women did not seek help, such as unawareness of the importance of symptoms and fear of stigma.

McGarry et al. (2009) did not look at barriers for seeking help, but rather were interested in looking at the demographic differences between women who report having PPD symptoms and seek medical help for depression compared to those who don't seek that type of help. They conducted a retrospective cohort study using the 2004 Pregnancy Risk Assessment Monitoring System (PRAMS) dataset. This assessment is administered to systematically selected women 2-6 months postpartum who had a live birth. It contains two questions pertaining to depression (having felt depressed and/or loss of pleasure or interest in things) that have been validated as an effective screening tool for depression.

A total of 337 women reported having PPD symptoms in this dataset, and only 39.5% reported seeking help. Those who did not seek help were more likely to be younger, less educated, non-white, Hispanic, living in urban communities, enrolled in WIC during pregnancy, and having experienced emotional abuse from partner during pregnancy. They were also more likely not to have their baby admitted to the Intensive Care Unit after delivery, to have received prenatal care at a hospital clinic, and to not have sought help for depression during pregnancy. Insurance status and income level were not significantly associated with seeking help.

Summary of major findings. A number of common themes were found across the studies that examined seeking help for postpartum depression. The most common barriers mentioned were fear of stigma; women's confusion between "normal" symptoms of adjustment after giving birth and depressive symptoms, therefore minimizing their symptoms; confusion and minimization of symptoms by service providers; and perceived inappropriate treatment options (mainly recommendation for medication). Other barriers

that were mentioned in at least two studies were financial strains and cost of care, and a referral to a mental health professional at a different site.

Studies of Seeking Help for Perinatal depression

In addition to the nine studies that directly examined help seeking behavior of women with post partum depression, several articles examined related topics, and will be discussed hereinafter. Five studies examined barriers to care for prenatal as well as postpartum (perinatal) women (Acri Cavaleri, 2005; Edge and MacKian, 2010; Goodman, 2009; Smith et al., 2009; Song, Sand, & Wong, 2004).

Acri Cavaleri (2005) examined sociodemographic, psychiatric, environmental/logistical and agency, institutional, attitudinal, and cultural factors that impede poor, depressed, perinatal women from attending an initial mental health appointment. The sample in Acri Cavaleri's study included pregnant and postpartum women who participated in the mental health component of the New Haven Healthy Start Initiative (NHHSI). One hundred and thirty six (136) of the women who enrolled in the NHHSI reported to currently be feeling depressed, and were referred to the Yale University Department of Psychiatry where they underwent a psychiatric assessment. The assessment was done using the Mini-International Neuropsychiatric Inventory 5.0.0, Clinician Rated (MINI-CR; Sheehan et al., 1998), the Inventory of Depressive Symptomatology, Clinician Rated (IDS-CR; Rush, Giles, Schlessler, & Fulton, 1985), and the EPDS (Cox et al., 1987). Sixty nine (69) of the women were identified as being at high risk for depression and were referred for mental health treatment. Only 23% of them ($n = 15$) attended an initial mental health appointment. Data regarding barriers to care

were collected from those ($n = 54$) who did not attend an initial mental health appointment.

Acri Cavaleri's (2005) study was the only one identified in which an instrument was used to assess barriers to care. The instrument was a modification of the Case Management Referral Form developed by the Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Mental Health Services to assess barriers to medical and psychiatric care homeless individuals encounter (Goldman et al., 2002). Women were presented with a list of possible barriers to treatment engagement that they may have encountered, and they were encouraged to add barriers of their own. Acri Cavaleri (2005) found that sociodemographic variables (except for being pregnant) and psychiatric factors were not related to treatment engagement. Environmental/logistical and attitudinal barriers were the most frequently mentioned barriers to treatment. Being older, lack of insurance, and prior depression were predictive of environmental/logistic barriers. Earning a high school diploma (which except for partial college was the highest level of education in the sample) and not being in treatment in the past were predictive of attitudinal barriers.

Another study that recruited women from the NHHSI was that of Smith et al. (2009) who examined rates of mental health follow up after referral, and evaluated factors pertaining to mental health service utilization in perinatal women. Specifically, they looked at the influence of four domains on utilizing professional treatment: (1) a woman's predisposition to use services, (2) ability to secure services, (3) level of illness, and (4) use of general health services (based on the Andersen's (1995) behavioral model to health care utilization).

Women were recruited from the New Haven Healthy Start Mental Health Outreach for Mothers Hotline (MOMSline) after they were referred there through the NHHSI which operated in obstetric/gynecological clinics and a Medicaid enrollment center. A referral was made if a woman screened positive for psychiatric distress. All women referred to the MOMSline during a certain fixed time period participated in the study. An initial telephone assessment of all women (N= 465) for various disorders including major depressive disorder, major anxiety disorder, and others was done, and women were told their results and referred for at least two mental health treatments. Only those who accepted the recommendation for referrals (N= 315) were re-contacted after 1, 3 and 6 months. At these times they were administered the EPDS, were asked whether and where they attended treatment (by a health or mental health professional) since their last contact, and were given additional referrals if necessary.

Out of the women who were referred for treatment only 38% attended one or more mental health treatment visit at 1, 3 or 6 months, and only 6% received sustained treatment over the three periods of time. Women who were pregnant at their initial assessment were less likely to utilize mental health treatment compared with those who were postpartum at baseline. In addition, women who were referred to a mental health provider at the same site as their prenatal/postpartum care, were unemployed, experienced interpersonal violence, and were born in the United States were more likely to utilize treatment compared to those who were referred to a provider at a different location, were employed, did not experience interpersonal violence, and were not born in the United States. Pertinent non-significant factors included age, race, marital status,

education, income, insurance status, transportation, child care, and presence of other children.

Song et al. (2004) examined barriers to mental health care for all perinatal women, not only those who had depression. Song et al. stated that the majority of mental health service users were diagnosed with minor psychiatric disorders, including depression and anxiety. The focus of Song et al. in their study was on examining the extent to which ethnicity, physical health problems, and behavioral risk factors were associated with the probability of mental health service use during the perinatal period. Their sample included pregnant and postpartum women who gave birth in a large metropolitan area during 1992. Participants were 3,841 White and African American women between 15 and 45 years of age who were eligible for Medicaid. Song et al. performed a secondary data analysis using the Medicaid Management Information System (MMIS), County Reporting System (CRS) data, and Pennsylvania State Vital Report Records of 1992, along with a data management protocol that included reliability and validity auditing of data elements and the maintenance of data standards in order to address possible reliability and validity problems that may arise from a secondary data analysis.

Song et al. (2004) found that 10% of participants used mental health services. African American women had a 50% lower probability of using mental health services than Caucasian women. Physical (such as chronic diseases) and behavioral (such as smoking) risk factors were associated with less mental health use, while being older and having more children predicted higher rates of seeking help.

Goodman (2009) studied women's treatment preferences for perinatal depression, the acceptability of specific treatments, and perceived barriers to perinatal depression treatment. A convenience sample of 509 women in their third trimester of pregnancy was selected from waiting rooms of two obstetrics clinics, and women were asked to complete a survey including a demographic questionnaire, the EPDS (with a score over 9) to assess current level of depression, a questionnaire with a list of depression treatment options (such as individual therapy, medication and group therapy) asking women to rank the top three treatments they would participate in if they needed help for perinatal depression or anxiety; they were also given a list of barriers asking them to rank the first three barriers that would keep them from attending treatment. Almost two-thirds (65%) of women said that not having time will serve as a barrier to obtaining professional help; 43% said that stigma would be a barrier; 33% said that having no child care would be a barrier; 26% said they wouldn't know where to find such services; 19% said they might not be able to afford to pay for treatment; 9% said that not having transportation may serve as a barrier; 4% said that their family may not approve getting professional help; and 3% said that language may serve as a barrier to obtaining professional help. Only 4% said they would not have any barrier to obtain professional help.

Edge and MacKian (2010) explored Black Caribbean women's attitudes toward help-seeking and their experience of receiving help from professionals. They used a purposive sampling method using a theoretical based matrix to recruit 12 women from a larger study that looked at depression during and after pregnancy among Black Caribbean (N= 101) and White British (N= 200) women in the United Kingdom. Women were recruited from four different sub-groups that participated in the study. One group had

high (EPDS \geq 11) prenatal depression scores and low postnatal scores; the second had high postnatal depression scores but low prenatal scores; the third had high depression scores both prenatal and postnatal; and the fourth had low scores at both times. In-depth interviews were used to interview women 6 months after giving birth. None of the women participating in the study sought help from mental health practitioners. They relied on self-help methods, such as faith and engaging in activities, and when that wasn't enough they turned to family and friends. Only when both failed they sought help from healthcare providers. Out of the 12 participants only 2 eventually sought help from healthcare providers, and they did so because they believed that their functioning might adversely affect their children.

Other themes that emerged in Edge and MacKian's (2010) study included the participants' difficulty defining what they were feeling as "depression" and as something that needed external attention. This was due to the fact that there is no clear acknowledgement of what constitutes mental illness within these women's social networks, making it difficult to know if what they were feeling were legitimate symptoms that require professional help. In addition, diagnosing oneself as having depression was conditioned by issues such as inherent psychological vulnerability, previously unresolved psychological distress, and social embeddedness (e.g., Black women's perceived social identity as "strong black women"). Moreover, participants said they didn't want to seek help because they didn't want to be labeled as "mentally ill", and because they thought they would be offered medication, which they believed was ineffective. Participants who did seek formal help and wanted to receive mental health support reported barriers within the formal system, such as long waiting time; child care issues; no Black therapists,

whom they believed would be more understanding, on staff; and general practitioners' attitudes that what the women have is not depression.

Summary of major findings. A number of common themes were found across the studies that examined seeking help for perinatal depression. The common barriers mentioned were fear of stigma, and financial strains and cost of care. Contrasting results were found with regard to the effect of age on treatment utilization, where Aciri Cavaleri (2005) claimed that being older predicts environmental/logistic barriers and Song et al. (2004) claimed that younger women were more likely to not utilize treatment.

Policy Analysis Study of Barriers to Care for Postpartum Women

All the studies discussed above focused on barriers to care from the woman's point of view, however only one study was found in which the investigator examined the existing policies and health care system in the United States that pose barriers to prevention and treatment of postpartum depression (Sobey, 2002). Sobey mentions several barriers to care: women are not routinely screened for postpartum depression and therefore not always detected; health care practitioners use inadequate screening tools for postpartum depression; women may not present with symptoms at their 4 to 6 week postpartum checkup; women may attribute their sad feelings to other factors and not depression, and therefore not report symptoms to their doctor; and health care practitioners might discount women's symptoms of depression as fatigue from birth, which may cause women to be embarrassed to report their symptoms. Sobey recommended that the public and health care practitioners should be educated about postpartum depression, use screening tools with high sensitivity and specificity that are culturally sensitive, that behavioral health be integrated with primary

care/midwifery/obstetrics services, and that community based postpartum services be established.

Descriptive Studies of Reasons for not Seeking Treatment

Finally, the last three articles that were found in the literature search (Andrews-Fike, 1999; Epperson, 1999; Ugarriza, 2004) were descriptive in nature, and contained reasons for why women do not seek treatment for postpartum depression, based on the authors' experiences as practitioners. Andrews-Fike claimed that women may not seek treatment because they don't realize that what they are suffering from is postpartum depression. In addition, primary care providers may not realize that a woman has postpartum depression because the clinical signs of the depression are not apparent unless screened for.

Epperson (1999) focused on detection and treatment of postpartum depression. She claimed that the detection of postpartum depression is difficult because most women expect an adjustment period after giving birth; therefore first time mothers may not realize that they are suffering from postpartum depression. In addition, societal pressure of being a "good mother" may cause a woman to be ashamed and not reveal her condition. Also, women may be afraid to be labeled as crazy, concerned that their child will be taken away from them. Women may also be confused about who to turn to for help. Moreover, physicians may inadvertently be the cause for delay in treatment, by providing the new mother with reassurance they might minimize her distress.

Ugarriza's (2004) study involved group therapy as an intervention for postpartum depression. The treatment group included six women and the control group had eight women. Both groups included postpartum depressed women who gave birth within a year

before the therapy. A significant difference was found between the pretest and posttest BDI II scores of the treatment group, indicating a decline in depression, whereas no differences were found between the pretest and posttest BDI II scores of the control group. Ugarriza also mentioned that not all women who were approached wanted to participate in the study and get treated. She claimed that this was due to the lack of understanding of postpartum depression and the women's reluctance to admit they were depressed. In addition, women who agreed to participate didn't come to all the group sessions because they had family events they preferred attending, and because they felt ashamed and like failures as mothers and therefore were embarrassed to attend a therapy group. Also, when a baby was sick women preferred staying home with the baby even though a family member was willing to help out.

Limitations of the Literature

Limited research was found on seeking help for postpartum depression, and the literature that exists suffers from various limitations, making comparisons across the studies difficult. Some of the literature is descriptive in nature (Andrews-Fike, 1999; Epperson, 1999; Sobey, 2002; and Ugarriza, 2004), and although it provides a rich description of the problem of not seeking help and various reasons for it, it is not empirically-based, and therefore the conclusions may not be generalizable to other settings and populations. However, this type of literature can assist in forming the base for an empirical study by generating hypotheses and extracting variables for analysis from it. The empirically-based literature suffers from various methodological limitations, as well, which will be reviewed hereunder. The limitations will be divided into research

design limitations, sample and sampling limitations, measurement limitations, and data analysis limitations.

Research Design Issues

In general, the choice of variables under examination varied across the different studies, and it is therefore difficult to compare findings and reach generalized conclusions. More specifically, Song et al. (2004), Acri Cavaleri (2005), Lau and Wong (2008), Smith et al., (2009), and Andrews Horowitz and Cousins (2006) used quantitative methods to examine the impact of specific variables on utilizing mental health services and McGarry et al. (2009) examined the impact on utilizing medical services. Although Song et al., Acri Cavaleri, Lau and Wong, and McGarry et al. provided a review of the literature regarding the connection between their variables of choice and service use, no theory or model guided their choice of variables. Also Goodman (2009) had no theory or model guiding her choice of barriers to obtaining help, and she did not provide any rationale for why these specific barriers were chosen. Andrews Horowitz and Cousins and Smith et al. were the only investigators to base their choice of variables on a theoretical framework.

Abrams et al. (2009), Bliszta et al. (2010), Chisholm et al. (2004), Edge and MacKian (2010), McCarthy and McMahon (2008), McIntosh (1993), and Sword et al. (2008) used a qualitative methods asking women open ended questions regarding barriers to seeking help. The barriers raised by the women were grouped into categories. McCarthy and McMahon and Sword et al. were the only qualitative researchers who focused their interviews on specific barriers that appeared in previous literature or that were based on an established framework. As to research methodology, Abrams et al.,

Bliszta et al., Edge and MacKian, McCarthy and McMahon, and Sword et al. utilized a systematic research methodology of in-depth interviews or focus groups. Chisholm et al. and McIntosh, on the other hand, did not provide any description of the research methodology, and it is therefore unclear how they reached their conclusions.

Sample and Sampling Method Issues

The method of sampling, as well as the sample sizes, varied across the different studies and suffered from a number of limitations. In five studies, population samples were used: Song et al. (2004) and McGarry et al (2009) performed a secondary data analysis on an entire population; Acri Cavaleri's (2005), McCarthy and McMahon's (2008), and Smith et al.'s (2009) studies included all eligible women for a specific program, and Lau and Wong (2008) recruited all women who had given birth at a hospital two to five days postpartum (excluding those with past depression or family history of depression). The fact that entire populations participated in these studies adds strength to them in that there is a low chance of sampling error; however the results may not be generalizable beyond the very specific characteristics of the initial eligibility criteria (e.g., participating in a specific program) or of a specific population. Sword et al. (2008) tried to recruit all women eligible for the study from a certain program, but only a few women agreed to participate, therefore limiting the generalizability of the study even to the specific population from which women were recruited.

Difficulty in generalizing findings arises in other studies as well. Abrams et al. (2009) and Goodman (2009) used a convenience method of sample selection, which limits the generalizability of their studies. In studies by Andrews Horowitz and Cousins (2006), Bliszta et al. (2010), and Chisholm et al. (2004), it is unclear how women were recruited

for the original sample. In addition, in Chisholm et al.'s (2004) study it is unclear how many women participated in the qualitative part of the study that examined barriers to care. The fact that the recruitment process was unclear makes it difficult to understand whether these samples were representative of their populations and to generalize the studies' findings.

Edge and MacKian (2010) used a purposive sampling method that allowed them to have representatives of each subgroup of the larger Black Caribbean women's group. This limits the generalizability of their study to Black Caribbean women, although it is not clear if the Black Caribbean women's group was randomly selected in the first place. McIntosh (1993) was the only investigator to use a random selection method of sampling, which if coupled with a good response rate (which is unclear) may add strength to his study by increasing the likelihood that the sample is representative of the population.

As far as the sample sizes, having a large (Chisholm et al., 2004; and Smith et al., 2009) or very large (Song et al., 2004) sample adds power to the study, whereas a fairly small sample with a large number of variables under analysis (Acri Cavaleri, 2005) or a small number of cases participating in the analysis (Andrews Horowitz & Cousins, 2006) reduces the power of the study. Small samples used in the qualitative studies were probably appropriate for the methods used (Abrams et al., 2009; Blizta et al., 2010; Edge & MacKian, 2010; McCarthy & MaMahon, 2008; and Sword et al., 2008). It should be noted that having a small number of cases participating in the analysis is the reason why Andrews Horowitz and Cousins did not perform a logistic regression, which would have been an appropriate analysis in their study.

Measurement Issues

Measures of depression. Several instruments were utilized in the postpartum depression treatment utilization literature to measure severity of depression. Most of the instruments used were reported to have good psychometric properties. The BDI-II (Beck et al., 1996) was used in Andrews Horowitz and Cousins' (2006) study. The Mini-International Neuropsychiatric Inventory 5.0.0, Clinician Rated (MINI-CR; Sheehan et al., 1998) and the Inventory of Depressive Symptomatology, Clinician Rated (IDS-CR; Rush, Giles, Schlessler, & Fulton, 1985) were used in Acri Cavaleri's (2005) study. The MINI was used in Smith et al.'s (2009) study as well, in order to determine presence of psychiatric disorders, along with the Primary Care Evaluation of Mental Disorders Brief Patient Health Questionnaire for depression and anxiety screening. Smith et al. also used the EPDS (Cox et al., 1987) for assessing depression severity. Other studies used the EPDS with various cut-offs in order to determine presence of depressive symptoms. The EPDS with a score above 12 indicating presence of postpartum depression symptoms was utilized in three studies (Acri Cavaleri, 2005; Andrews Horowitz & Cousins, 2006; Sword et al., 2008), with a score above 11 in one study (Edge and MacKian, 2010), and with a score above 9 for indicating significant symptoms of depression and above 12 for indicating probable major depression in another study (Goodman, 2009). The EPDS was used also in Lau and Wong's (2008) study with a score above 9 indicating presence of postpartum depression symptoms, but it was used at 2-5 days postpartum rather than a number of weeks postpartum, reflecting depressive symptoms that may not be postpartum depression. Lau and Wong, however, claim that studies have shown a high correlation between EPDS scores at 2-5 days postpartum and at 4-5 weeks postpartum. Using

different cut-points poses a limitation to generalizing findings across studies because it results in different numbers of women being identified as having postpartum depression symptoms. For instance, a lower cut-point will result in higher numbers of women being detected with postpartum depression symptoms, but there is no way to know how many of those women would have identified as having symptoms if a higher cut-point was used.

Other instruments that assess presence of depression were used in McGarry et al.'s (2009), Chisholm et al.'s (2004), and McCarthy and McMahon's (2008) studies. McGarry et al. assessed presence of postpartum depression symptoms using two questions (having felt depressed and loss of pleasure or interest in things since the new baby was born), which the authors claim have been validated as an effective screening tool for depression. Chisholm et al. used a modification of the research version of the Structured Clinical Interview for DSM-IV Axis I disorders for use with non-patient populations (SCID-I/NP; First et al., 1996) to assess presence and severity of depression. However no details were given about its psychometric properties and how the instrument was modified. McCarthy and McMahon's (2008) used a clinical interview for assessing depression as well; however they do not mention the exact interview and its procedures. Conclusions about presence of postpartum depression or other mental health problems in these studies should, therefore, be viewed with caution.

In Bliszta et al.'s (2010) study women were recruited from depression treatment programs or mutual support programs; however there is no mention of specific diagnosis of participants and how diagnosis was done. In two other studies participants were not diagnosed for depression nor were they screened for it. Rather, the presence of

postpartum depression was determined if a woman reported experiencing a depressed mood for a period of at least 14 days at any stage after the first postpartum weeks (McIntosh's, 1993) or experiencing at least three of the symptoms listed on the EPDS in the past year (Abrams et al., 2009). This type of measure of depression can serve as evidence of perceived postpartum depression. However, for postpartum depression research purposes this type of assessment is problematic due to the fact that it is unclear whether these women actually had depression or not, and conclusions about postpartum depression should be viewed with caution.

The fact that the EPDS was used only in seven studies is surprising given that fact that the EPDS is a reliable and valid¹ instrument designed specifically to screen for postpartum depression symptomatology. However, the under-utilization of the EPDS may be due to the fact that some of the investigators measured not only postpartum depression, but prenatal depression or other mental health problems as well, whereas others wanted to determine presence of depression, not only symptomatology, and therefore did not want to use a screening tool.

Measures of promoting access/ barriers to care. The different studies focused on barriers to different types of care. In nine of the studies (Abrams et al., 2009, Acri Cavaleri, 2005; Andrews Horowitz & Cousin, 2006; Bliszta et al., 2010; Goodman, 2009; Lau & Wong, 2009; Smith et al., 2009; Song et al., 2004; Sword et al., 2008) the investigators examined promoting factors or barriers to mental health care. Chisholm et al. (2004) and Edge and MacKian (2010) explored the barriers to both health care and

¹ Details on the reliability and validity of the EPDS will be provided in the measures section of the method chapter.

mental health care, and McGarry et al. (2009) explored demographic factors associated with health care utilization for depression, excluding mental health care, which is a more appropriate source of help for depression. McIntosh (1993) was the only researcher who focused on identifying barriers to various types of care (formal and non-formal) for postpartum depression.

No existing and known instruments were utilized for the assessment of promoting access factors or barriers to care for depression. In seven studies (Abrams et al., 2009; Bliszta, 2010; Chisholm et al., 2004; Edge & MacKian, 2010; McCarthy & McMahon, 2008; McIntosh, 1993; Sword et al., 2008), the investigators used a qualitative method in order to elicit barriers to utilizing services. In Abrams et al.'s, Bliszta et al.'s, Chisholm et al.'s, Edge and MacKian's, McCarthy and McMahon's, and Sword's et al.'s studies participants were asked questions that aimed to extract perceived barriers to care. In McIntosh's study, on the other hand, women were not prompted to talk about barriers to care, but rather were asked about their general emotional reactions at a number of occasions during pregnancy and postpartum, and perceived barriers to help were extracted from the women's answers. This poses a limitation to the objectivity of the study in that based on the women's answers the investigators were those who defined what the barriers to care were. Another limitation, which pertains to Chisholm et al.'s and McIntosh's studies, is that there was no description of how the interviews were conducted. For instance, how many interviewers participated in the interviews and at what stage of the postpartum period the interviews took place.

Subjectivity of the measurement process occurred in other studies as well.

Goodman (2009) provided a list of barriers that women had to rank. There is no mention

as to how these barriers were chosen. Song et al. (2004) and McGarry et al. (2009) used existing databases, and it seems that the operationalization of the specific variables under investigation for assessing barriers to care was decided upon by the investigators, not based on a theory or definition. This subjective nature of operationalization poses a limitation to the studies, because one cannot be sure that what was declared as being measured was actually measured. Smith et al. (2009) used questions pertaining to barriers of seeking help that were based on a review of the literature.

Lau and Wong (2009) used an existing instrument, the Protective and Acquisitive Face Orientation short form scale, to assess motives of people in face-relevant situations, which may serve as barriers for willingness to seek help. This scale had no published reliability and validity, and the researchers tested it for these factors finding good reliability and construct validity. The willingness to seek help was assessed by a single yes/no question taken from an existing longer scale. Acri Cavaleri (2005) was the only investigator to use an instrument specifically for assessing barriers to care. She modified an existing instrument, and the original as well as the modified instrument have not undergone psychometric testing, although the original instrument has been used extensively among homeless individuals.

Data Analysis Issues

Two of the studies that used a qualitative method of inquiry (Chisholm et al., 2004; McIntosh, 1993) suffer from data analysis limitations. Chisholm et al. (2004) provided categories of commonly expressed barriers to care, and McIntosh (1993) provides anecdotes from participants' answers in the interviews. In both studies the investigators did not provide the data analysis steps, and it is unclear how they arrived at

their themes. Also, there is no mention of steps taken to enhance the trustworthiness and rigor of the studies, and it is therefore difficult to draw conclusions as to how reliable and non-biased the studies were.

Abrams et al. (2009), Bliszta et al. (2010), Edge and MacKian (2010), McCarthy and McMahon (2008), and Sword et al. (2008) all used and reported a systematic data analysis approach. Abrams et al. used grounded theory strategies of naturalistic fieldwork and systematic comparison of the data in order to develop their themes. In addition, gathering data from multiple perspectives provided a wide perspective of the matter investigated and strengthened the study. Bliszta et al. used an interpretative phenomenological approach to analyze the data, which allows investigators to form an understanding of participants' experiences through their personal reports. Edge and MacKian used constant comparison of themes and examined them for goodness of fit. In addition various data verification strategies (e.g., peer review and participant verification) were used to ensure reliability and trustworthiness of the data. McCarthy and McMahon used the modified analytic induction approach to data analysis, and Sword et al. used the content analysis approach and provided a number of strategies (such as looking at other plausible ways of organizing the data as categories and concepts were identified, and looking at negative cases) for enhancing the rigor of the data analysis.

In six of the quantitative studies (Acri Cavaleri, 2005; Andrews Horowitz & Cousins, 2006; Lau & Wong, 2009; McGarry et al., 2009; Smith et al., 2009; Song et al., 2004) the investigators used bivariate analyses, namely chi square and *t* tests, to examine associations between the independent and dependent variables and to compare women who utilized services to those who did not. Acri Cavaleri, Lau and Wong, McGarry et al.,

Smith et al., and Song et al. also performed logistic regression analyses for the purpose of probability prediction. Andrews Horowitz and Cousins, on the other hand, did not utilize a multivariate analysis, therefore eliminating their predictive capability, and limiting their conclusions to associations between variables.

In addition, in order to examine interactions Acri Cavaleri (2005) initially performed univariate analyses (Fisher's exact tests) to examine individual relationships, and only the statistically significant relationships were then included in a multivariate analysis (logistic regression). This type of data analysis that utilized a multivariate analysis with variables that were found to be significant in the univariate analyses raises the likelihood of the results being sample specific, therefore posing a limitation to the generalizability of the findings (Cohen, Cohen, West, & Aiken, 2003; Stevens, 2002). Song et al. (2004), on the other hand, did not mention such a procedure when they examined interactions in a hierarchal logistic regression, therefore strengthening the ability to generalize their findings. Finally, Goodman (2009) did not look at the association between specific variables (barriers) and seeking help; rather she provided only the percent of women that endorsed various barriers. Therefore, there is no way to know if these barriers are associated with actually seeking help.

Literature Review Summary

The literature on treatment utilization emphasized various barriers to seeking help for postpartum depression, and some common themes and findings, which were consistent across qualitative and quantitative methods and across cultures and countries, were detected. It therefore seems reasonable to suggest that significant barriers, mentioned in a number of studies, may be generalized as likely to be universal. The most

common barriers mentioned were fear of stigma, appearing in half of the studies; women's confusion between "normal" symptoms of adjustment after giving birth and depressive symptoms, therefore minimizing their symptoms; confusion and minimization of symptoms appeared to be quite common by service providers as well; perceived inappropriate treatment options (mainly recommendation for medication); and financial strains or cost of care. Other barriers that were mentioned in a smaller number of studies included child care constraints; limited knowledge about services; referral to a mental health provider at a different site; and age of woman, which had contradictory results in different studies. Less common barriers included transportation, time constraints, not receiving mental health treatment in the past, lack of understanding of what postpartum depression is, experiencing interpersonal violence, and education, which had contradictory results in the different studies.

Although there seem to be common barriers-to-care themes that may be generalizable, most of them appeared in fewer than four studies per barrier. The literature reviewed should therefore be viewed in light of its methodological limitations: The fact that in three out of the eight empirical studies the recruitment process was not always clear, and in other studies specific populations were studied; multivariate data analysis that was carried out only on variables that were found to be significant in the univariate analysis. Also, the fact that the samples' demographic characteristics differed from each other makes it extremely difficult to integrate the studies' findings and offer a uniform opinion. This is true also in light of the different instruments that were used to measure depression, raising the question of whether these different measurements were actually measuring the same phenomenon.

The data analyses were problematic as well. In two of the studies that used qualitative inquiries to elicit barriers to seeking help the data analysis procedures were not described, and among the quantitative studies only five out of the eight studies performed appropriate predictive analyses. Another important limitation pertains to the fact that the researchers in only two studies based their choice of variables on a theoretical framework, and only one of these studies offered a broad framework to help explain why women seek or avoid seeking help for postpartum depression. Hence, in this dissertation a comprehensive model of services utilization is offered, analyzed, and applied to postpartum depression in light of the literature in order to form the basis for a thorough and informative research study.

Mental Health Treatment Utilization in the Ultra-Orthodox Community

The literature on treatment utilization for postpartum depression does not include studies that were done in Israel, in general, or within the ultra-orthodox community, in particular. However, a discussion of ultra-orthodox treatment utilization for general mental health issues was found in a book by Greenberg and Witztum (2001). The authors, two psychiatrists, discussed their clinical work with the ultra-orthodox community in Jerusalem. Although treatment utilization for postpartum depression might not necessarily be identical to treatment utilization for other mental health problems, postpartum depression is a mental health problem. Thus, in the absence of literature on postpartum depression treatment utilization in the ultra-orthodox community, barriers to mental health treatment utilization for mental health problems within the ultra-orthodox community will be provided.

Fear of stigma, which is active in every society, is a central reason for ultra-orthodox people avoiding mental health treatment. Having a family member with psychiatric problems affects the marriage prospects of everyone else in the family, especially in a community where marriages are arranged and that highly values the institution of marriage (Greenberg & Witztum, 2001). In addition, the ultra-orthodox society perceives a public mental health clinic as part of the secular Israeli society, which they do not want to be exposed to in fear that it could negatively affect their values and beliefs (Lifshitz & Glaubman, 2004). Therefore ultra-orthodox people will want to limit their contact with such clinics and will usually prefer to be treated by a religious mental health professional, which is not always available. They might also not seek help at all or turn to their rabbis or the private professional sector for help (Greenberg & Witztum,

2001). For ultra-orthodox Jews the rabbi is the ultimate authority in all domains of life, and they will turn to him with any problem or issue that they have (Lifshitz & Glaubman, 2004). The rabbi will offer support and guidance and will decide whether or not to refer the person to a mental health professional (Greenberg & Witztum, 2001).

The central role of the rabbi in providing help for mental health problems is highlighted in Firrer's (2001) study. The purpose of this study was to examine the process of seeking mental health treatment in the ultra-orthodox community, specifically looking at the preferable sources of help for mental health problems. Firrer interviewed 74 people who were treated in a mental health clinic that serves the ultra-orthodox community of the Israeli ultra-orthodox city, Bnei Brak. Eighty one percent of participants were treated for over a year in the clinic. The researcher found that during the process of seeking help for their mental health problem 78% of participants turned to their family for help, 66% turned to a rabbi, 54% turned to professional help, and 22% turned to friends. In addition, when asked who referred them to treatment in the clinic 52% answered that a rabbi referred them, 32% said that a professional referred them, 7% were referred by family and 9% by friends. This study emphasizes the important role of family in providing support, and the central role the rabbi has not only in offering help, but in referring people to professional treatment as well.

Another source of help ultra-orthodox people might turn to is their social-communal network. In a study conducted in Israel, which focused on the effect of religion on postpartum depression, Dankner et al. (2000) found that at 7 to 11 weeks postpartum there was a decreasing mean of EPDS scores across secular, traditional²,

² Traditional Jews are moderately religiously observant.

orthodox³, and ultra-orthodox groups. The authors concluded that greater religiosity, with its associated social and community cohesive structuring, distinct social roles, and more extensive community support, is associated with a decreased risk of postpartum depressive symptoms.

In light of the lack of studies on treatment utilization in the ultra-orthodox community for mental health problems, in general, and for postpartum depression, in particular, it is important to examine this phenomenon while taking into consideration the fact that the ultra-orthodox community is a closed community, which under-utilizes mental health professional help and prefers turning to resources within the community itself for assistance.

³ Orthodox Jews are strict in their traditions; however to a lesser extent than the ultra-orthodox. They are also less segregated from the larger Israeli society than the ultra-orthodox.

Theories of Service Utilization

The term utilization of health care services refers to a contact with the formal medical care sector (e.g., physicians, nurses, etc.) (Andersen, 1995). Utilization of health services can be viewed as a form of an individual behavior (Andersen & Newman, 1973). Indeed, several help seeking models have focused on the individual's behavior, such as the theory of planned behavior (Ajzen & Madden, 1986), the self-regulation model (Leventhal, Nerez, & Steele, 1984), Cramer's (1999) model of seeking help for psychological distress, and Fisher and Turner's (1970) measure of orientations to seeking professional help. On the other hand, utilization of services can be viewed as a consequence of social processes, as indicated, for instance, in the work of Rogler and Cortes (1993) and Pescosolido (1991).

The social work discipline's focus on the human behavior in the social environment entails a synthesis of these two approaches. A person is a system in and of herself, as well as a part of a larger system involving various social processes (Robbins, Chatterjee, & Canda, 1998). The Behavioral Model of Health Service Use (Andersen & Newman, 1973) offers a comprehensive explanation of the utilization of health care services, while taking into account the behaviors and beliefs of individuals together with the impact of social processes upon them.

The Behavioral Model of Health Service Use

Andersen (1968, as cited in Andersen & Newman, 1973), who was interested in measuring and promoting equitable access to health care, developed the Behavioral Model of Health Service Use in order to provide a framework for viewing health services utilization and examining facilitating and impeding factors, while taking into account

both individual and societal determinants. The model was intended to predict as well as explain the use of services, and it has evolved to some degree over the years (Aday & Andersen, 1974; Andersen, 1995; Andersen & Newman, 1973). The roots of the model lay in the behavioral sciences, which view the individual behavior as a function of the characteristics of the individual and the environment in which she⁴ lives, and/or interactions of these societal and individual forces (Andersen & Newman, 1973).

The basic assumption of the model is that a sequence of conditions contributes to a person's use of health services as a result of an illness, whether episodic or chronic. These conditions include the predisposition of the person to use services, her ability to attain services, and her illness level. Therefore the model proposes that a person's use of health services is a function of her predisposition to use services, factors that enable or hinder use, and the person's need for care (Andersen, 1995). In addition, the model acknowledges the importance of societal determinants as a factor in understanding the use of health services. The model suggests that societal factors of utilization affect the individual factors both directly as well as through the health services system. The individual then decides whether or not to use services, and where, when, for what purpose, and what type of service to utilize (Andersen & Newman, 1973). A description of the model components is provided in Figure 1, followed by an application of the model to postpartum depression services utilization.

⁴ The focus of this paper is on women's postpartum depression, and therefore feminine gender grammar is used.

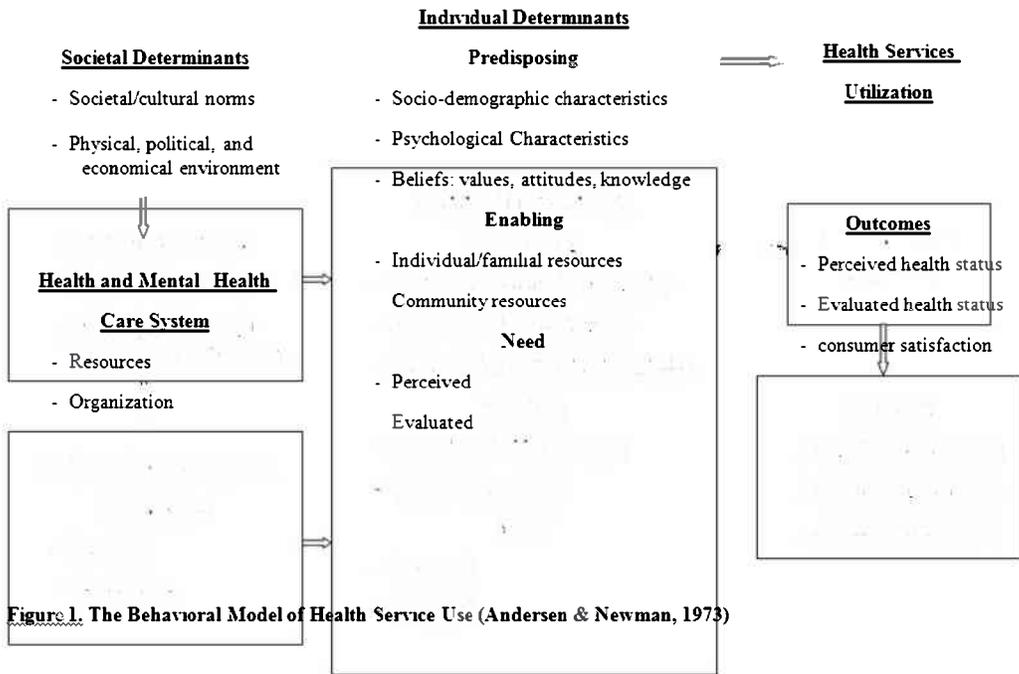


Figure 1. The Behavioral Model of Health Service Use (Andersen & Newman, 1973)

Societal Determinants

The societal determinants that impact a person's utilization of services include physical, political, and economic components of the external environment (Andersen, 1995). Andersen did not elaborate on the physical component, but rather on the other two. The political component includes, for instance, health and mental health policies and programs that have emerged from such policies. The economic component can include the financing of such policies and programs. These components obviously have an impact on whether people will utilize services and what type of services can be utilized (Aday & Andersen, 1974). In the earlier version of the model societal norms were included in the societal determinants as well. Norms refer to modes where social systems encourage or assure normal compliance on the part of the members (Andersen & Newman, 1973).

Health and Mental Health Care System

The health care system provides formal health and mental health care to society, such as physician care and hospital care. This system is characterized by two main components- resources and organization. Resources are the labor and capital devoted to health care, including the amount of personnel, equipment, and structures through which care is provided, as well as the distribution of these resources. Organization describes what the system does with its resources and how the resources are coordinated in the process of providing services. The components of organization are entry and structure. Entry refers to the process of entering the system, which can include variables such as travel time and wait time. Structure refers to the characteristics of the system that

determine what happens to people once they enter the system, for instance whom they see and how they are treated (Aday & Andersen, 1974).

Individual Determinants

There are three types of individual determinants: predisposing, enabling, and need components. The *predisposing component* refers to the tendency of people to use services. It is proposed that some people have a tendency to use services more than others. This tendency can be predicted by individual characteristics, which can be divided into demographic, social structure, and attitudinal-belief variables. Demographic factors refer to biological imperatives, such as age, gender, and past illness. Social structure refers to the status of the person in society. Characteristics that measure social structure, such as ethnicity, education, and occupation, represent the lifestyle of the person and her behavior in relation to the physical and social environment. Attitudes and beliefs refer to attitudes, values, and knowledge that people have about health, mental health and medical services that may influence perceptions of need and preferences toward use of health services. For example, a person who believes that a treatment is effective will be more likely to seek treatment than a person who does not believe in the efficacy of treatment (Andersen & Newman, 1973). Andersen (1995) later modified the model by adding psychological characteristics, such as mental dysfunction, cognitive impairment, and autonomy, as another predisposing component.

In order to utilize services a predisposition is not enough; some means must be available to individuals in order to promote their use of services (Aday & Andersen, 1974). This *enabling component* refers to conditions that permit the person to act on a value or satisfy a need regarding health service use. In order for use to take place,

personal as well as community enabling resources must be present. Personal resources refer to resources specific to the individual and her family, such as income and insurance coverage. Community resources refer to factors in the community that help facilitate or hinder utilization of services, such as social support (Aday & Andersen, 1974). Enabling resources may be viewed from an opposite point of view as well, where an enabling factor may refer to the lack of impeding factors (Andersen, 1995).

Assuming that predisposing and enabling conditions are available, the individual must be aware of her illness in order for utilization of health services to take place. The illness level, or the *need component*, is the most immediate cause of health service use. The need for care may be either that perceived by the individual or evaluated by the health care system (Andersen & Newman, 1973). It is expected that perceived need may better explain health care seeking, while evaluated need will better explain the type and amount of treatment that will be provided once a client contacted a health care provider (Andersen, 1995).

Health Services Utilization

The utilization of health services can be categorized in terms of its type, site, purpose, and the time interval involved (Aday & Andersen, 1974). The type of utilization refers to the type of service received and to who provided it- whether it is a hospital, a physician, a social worker, etc. The site is the place where the services are given. The purpose refers to whether the service was a preventive service, an illness-related service, etc., where the different purposes of care imply different patterns of help seeking. The time interval may refer to contact, volume, or continuity of measures. Contact refers to whether or not a person entered a service, volume refers to the number of visits an

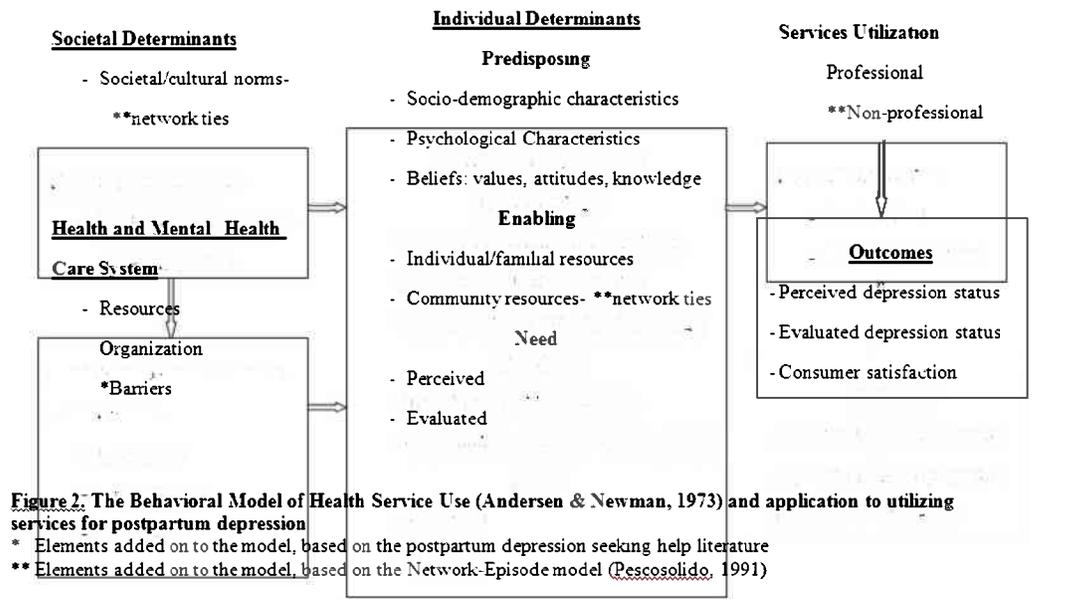
individual made to the service, and continuity refers to the degree of coordination between different services that provide care for the individual's problem (Aday & Andersen, 1974).

Outcomes

Over the years Andersen's model has evolved, and in the 1990's Andersen added the outcomes factor to his model (Andersen, 1995). This factor was added due to the recognition that maintaining and improving the health status of people, both as perceived by them and as evaluated by professionals, is important. The outcome factor includes people's perception of their health status, their evaluated health status, and their satisfaction with the services they utilized.

The Behavioral Model of Health Service Use and Postpartum Depression

The application of the Behavioral Model of Health Service Use to utilizing mental health services for postpartum depression is depicted in Figure 2. In the next section the application of the model to postpartum depression, based on the postpartum depression help seeking literature, is provided.



Societal Determinants

Physical, political, and economic societal determinants are minimally discussed in the postpartum depression services utilization literature. In addition, the Israeli societal determinants differ from those in the United States and other countries where this research has been conducted. Therefore, a short discussion of those determinants that were mentioned in the postpartum depression service utilization literature will be provided, followed by a description of the Israeli health and mental health system and policies that pertain to postpartum depression treatment. In addition, societal norms, which have some reference in the postpartum depression literature, will be discussed, followed by a discussion of Israeli and ultra-orthodox societal norms pertaining to mental health treatment.

Societal determinants found in the literature. Sobey (2002) raises the issue that no legislation ensuring parity in coverage of mental health care has been passed in the United States. This means that women with different health insurances will have different mental health care coverage, which may impact whether and to what extent they will utilize mental health care. As for public assistance for mental health care, access to treatment for depression differs among the states, therefore having a different impact on women in different states.

The health care system in Israel. Under the Israeli National Health Insurance law, legislated in 1994, every Israeli citizen is entitled to health and mental health services. The health insurance payments are connected to the National Insurance (parallel to the American Social Security) payments (i.e. every citizen is obligated to pay a monthly payment to both). There are exceptions to the payment obligation, such as a child under

18 whose health insurance is covered by the parents' payments, or a house wife whose health insurance is covered by her husband's payments. The monthly health insurance payment is 4.8% of a person's salary. A person who does not work pays a fixed amount of 151 New Israeli Shequels (NIS), which is approximately \$45 U.S. per month (National Insurance Institute of Israel, 2010).

Israeli health insurance companies. There are four health insurance companies in Israel: Klalit, Maccabbi, Meuhedet, and Leumit. People are entitled to choose the health insurance company they want to be a member of, and once a year they can transfer membership to another health insurance company. All health insurance companies are required to provide the same basic health services. Beyond that each company can choose to provide extra services and request its members to pay an additional fee for them. For example, visits to an obstetrician-gynecologist (OB/GYN) are part of the basic health services that are provided through all health insurance companies.

Mental health care in Israel. Mental health services are provided all over Israel, free of charge, by the Israeli Ministry of Health through public clinics. Therefore a woman who wants to turn to a mental health professional for treating her postpartum depression can do so directly by turning to a mental health clinic; no referral is needed (Israel Ministry of Health, 2006). A woman may also turn to mental health professionals who work with her health insurance company and pay a nominal fee.

Societal norms. Societal norms play a significant role in postpartum women's lives in different cultures (Amankwaa, 2003; Lee, 2000), and therefore should be taken into consideration when examining help-seeking patterns of women with postpartum depression (Abrams et al., 2009; Andrews Horowitz & Cousins, 2006; Lau & Wong,

2008). Societal norms emphasize the joyful part of the postpartum period, expecting women to be happy and able to cope on their own (Acri Cavaleri, 2005; Brown & Bacigalupo, 2006) and to be a “good mother” (Epperson, 1999; Nahas & Amasheh, 1999). These norms may put a societal stigma on women with postpartum depression (Andrews Horowitz & Cousins, 2006) and may impact their motivation to seek help (Abrams et al., 2009; McIntosh, 1993).

When examining Israel in the context of societal norms, Israel is considered to be a developed nation with many cultural aspects similar to those in the United States (Glasser, Barell, Boyko et al., 2000). However, the ultra-orthodox community has specific norms regarding mental illness and mental health treatment that are somewhat different from the overall Israeli societal norms (Dankner et al., 2000). The guidelines for behavior and opinion in the ultra-orthodox community were established by the writings of leading rabbis (i.e., religious leaders) in earlier generations and are updated by today’s leading rabbis by way of public statements or personal advice. The rabbi plays a major role in the life of ultra-orthodox people, and congregants come to him for advice on religious and personal matters that range from the mundane to the urgent, including mental health treatment issues. Generally, ultra-orthodox rabbis’ attitude toward psychotherapy and psychiatric treatment was and still is negative, mainly due to the secular world view of those professionals. However, the rabbis understand that in many instances this treatment is needed, and therefore they make it clear that people may turn to mental health professionals only if told to do so by their rabbi (Greenberg & Witztum, 2001). It is therefore likely that ultra-orthodox women will be less likely than the general population to seek treatment for postpartum depression. However, if a rabbi refers a

woman to mental health professional help, then the women will do as told to by her rabbi, and the likelihood of seeking treatment should increase.

The Health and Mental Health Care System

According to the Behavioral Model of Health Service Use (Andersen & Newman, 1973) the health care system, namely its resources and organization, has an impact on the person's decision to seek help. Specifically, the more personnel and equipment in a specific area, as well as the less travel time and wait time, the more likely a person will be to access treatment. These factors were not examined in studies on treatment utilization for postpartum depression; however the impact of the health care system on seeking help for postpartum depression was examined through discussion of the system's barriers to getting women into treatment (see this added factor in Figure 2). The system's barriers will therefore be the focus of the following discussion.

Health care providers come in contact, quite frequently, with women in their postpartum period. However, if a woman does not choose to disclose her condition and inform her health care provider that she is feeling depressed, many times the provider will not detect her postpartum depression (Abrams et al., 2009; Bliszta et al., 2010; Brown & Bacigalupo, 2006; Sword et al., 2008). Only approximately half of general practitioners and child and family health nurses were found to correctly identify postpartum depression (Austin, 2003), when no routine screening for detecting postpartum depression was done. In a study that examined the utility of using the EPDS as a screening tool to detect postpartum depression, midwives and obstetrician-gynecologists still failed to detect 40% of women who screened positively for postpartum depression (Morris-Rush, Freda, & Bernstein, 2003).

There may be a number of reasons for health care practitioners' inability to detect postpartum depression. First, health care providers have difficulty in differentiating between a mother's normal distress associated with adjustment to her new role and a psychiatric disorder (Abrams et al., 2009; Austin, 2003). Second, health care providers may attribute symptoms of depression to fatigue from birth and caring for the new baby, and this may cause women to be embarrassed to report their symptoms (Sobey, 2002). Physicians may also want to be reassuring and therefore may minimize a woman's distress (Bliszta et al., 2010; Epperson, 1999; Sword et al., 2008). Another reason may be the fact that clinicians tend to underestimate the seriousness of postpartum depression equating it many times with the postpartum blues, which is a transitory postpartum phase lasting up to 4 weeks postpartum (Beck, 2001). Another barrier to detection of postpartum depression by health care providers is the insufficient knowledge about postpartum depression within the health care disciplines and lack of understanding of cultural differences in expressions of postpartum depression (Andrews-Fike, 1999; Sobey, 2002). Greenberg and Witztum (2001) refer to the fact that mental health professionals might not understand the manifestations of mental illness in the ultra-orthodox community. This lack of knowledge may be responsible for health care providers not detecting postpartum depression and/or not referring mothers to treatment (Ugarriza, 2004).

Poor communication between health care providers and mental health care providers may pose yet another barrier to treating women with postpartum depression. Even if women's postpartum depression is detected by a health care provider, many times they have difficulty in arranging mental health referrals for their patients, and if a referral

is made in many instances there is no follow up on it (Andrews Horowitz & Cousins, 2006; Austin, 2003; Sobey, 2002; Smith et al., 2009; Sword et al., 2008).

Individual Determinants: Predisposing Factors

Socio-demographic characteristics. Evidence from the literature is inconclusive as to whether socio-demographic factors have an impact on a postpartum woman seeking help for depression. In a study among poor urban depressed perinatal women, socio-demographic factors such as age, race, education, and marital status were not significant predictors of seeking help for depression (Acri Cavaleri, 2005). In contrast to these findings, in a study done in Utah researchers found that the older a woman was, the fact that she was Caucasian, more educated, urban, not enrolled in WIC, and with no experience of emotional abuse the more likely she was to seek help; however, income was not a significant predictor of seeking medical help (McGarry et al., 2009). Along the same lines, Song et al. (2004) concluded that among low-income Medicaid eligible pregnant and postpartum women the older a woman was and the more children she had the more likely she was to use mental health services, and Caucasian women were twice as likely as African American women to use mental health services.

Looking at some of the characteristics of these samples reveals that the sample in Acri Cavaleri's (2005) study was quite small (N= 69) and 87% of it was composed of minorities. Song et al.'s (2004) sample consisted of almost 4000 women, 83% of them being minorities, and McGarry et al.'s (2009) sample consisted of 357 participants, with only 18% of them being minorities and only 44% with a low income. The contrasting conclusions may have been due to several reasons, among them sample size, proportion of minorities in the samples, level of income, and the source of help sought (Acri

Cavaleri and Song et al. examined seeking help from mental health professionals, whereas McGarry et al. examined seeking medical help).

These somewhat contrasting results require further investigation, in particular the inconsistent findings with regard to race, which was found in many studies to be a significant predictor of utilizing mental health services. For example, Boscarino, Adams, Stuber, and Galea (2005) and Han and Liu (2005) state that ethnic minority groups are less likely to seek treatment for mental health problems, and Song et al. (2004) claim that African American pregnant and postpartum women seek help only when symptoms become severe.

When studying the Jewish Israeli population (which is the majority population in Israel) the race factor is not a central issue in everyday life. However, there are minorities within the Jewish society that have distinct social norms and structures. One of these minorities is the ultra-orthodox community, who are distinct, among other things, by their separate life style and avoidance of secular society (Greenberg, Stravynski, & Bilu, 2004). Greenberg and Witztum (2001) describe how in a community mental health clinic in Jerusalem that provides services for a community that consists of over 50% of ultra-orthodox people, only 25% of referrals were ultra-orthodox. This implies that the ultra-orthodox are proportionately much less likely to seek public psychiatric help.

Psychological characteristics. Psychological characteristics were not discussed in the postpartum depression treatment utilization literature; however they were examined in many studies on treatment utilization for general mental health problems. One of the main psychological characteristics that was examined is self concealment or non-interpersonal openness, which refers to a person's predisposed tendency to refuse to share

personally distressing information with others. This factor was found to be significantly related to seeking help where high self-concealers had negative attitudes towards seeking counseling (Liao, Rounds, & Klein, 2005) and were less likely to seek help for their mental health problems (Cramer, 1999)

Attitudes and values. Abrams et al. (2009), Bliszta et al. (2010), Chisholm et al. (2004), Edge and MacKian (2010), and Sword et al. (2008) described women's expressions of constraints to accessing services in the postpartum period. Women with postpartum depression often perceived their health care providers as non-responsive to their needs or as providing non-quality services. In addition they were concerned with the side effects and appropriateness of medication. Ugarriza (2002) added that in her study some women were disappointed with treatment options, and highlighted the conflict that women have over taking anti-depressant medication while breastfeeding. When dealing with the ultra-orthodox community, Greenberg and Witztum (2001) claim that ultra-orthodox people may be reluctant to seek mental health treatment because mental health professionals are usually not from the same background as their own and may impose their secular values upon them.

Sense of shame at having postpartum depression and feeling like a failure as a woman and mother may also prevent women from admitting their feelings and seeking help (Andrews-Fike, 1999; Andrews Horowitz & Cousins, 2006; Ugarriza, 2004). Moreover, recognizing that something is terribly wrong may cause women to worry that if they admit this to health care providers they may be hospitalized and their baby may be taken away from them (Epperson, 1999). In McIntosh's (1993) study, women were reluctant to admit their emotional state from fear of being labeled as mentally ill and unfit

mothers. Fear of being stigmatized by family and society was mentioned by women in Abrams et al.'s (2009), Chisholm et al.'s (2004), Edge and MacKian's (2010), Goodman's (2009), McCarthy and McMahon's (2008), and Sword et al.'s (2008) studies as a barrier to seeking help. Fear of stigma is also a central reason for the ultra-orthodox people to avoid mental health treatment, mainly due to the fact that having mental health problems affects the marriage prospects of everyone else in the family (Greenberg & Witztum, 2001).

Knowledge. Lack of knowledge about postpartum depression was found to be an important predictor in the under-utilization of mental health services as well. Not knowing enough about what postpartum depression is and what treatments are available may cause many women not to seek help (Abrams et al., 2009; Bliszta et al., 2010; Goodman, 2009; Sword et al., 2008). In Ugarriza's (2004) study, lack of knowledge about postpartum depression was one of the reasons why postpartum depressed women did not seek or participate in therapy. Along these lines, Abrams et al. (2009), Acri Cavaleri (2005), Andrews Horowitz and Cousins (2006), Bliszta et al. (2010), Edge and MacKian (2010), McCarthy and McMahon (2008), and Sword et al. (2008) added that many women may not recognize symptoms of postpartum depression, may attribute them to normal adjustment after giving birth, and may be unaware of treatment utility, therefore not seeking treatment. Knowledge about postpartum depression and available treatments may also influence perceived need; it can increase the capability of women to identify their symptoms as postpartum depression symptoms and ultimately increase the likelihood of their getting treatment.

To sum up, the impact of socio-demographic factors on seeking help for postpartum depression is not always clear, especially the age and race factors that have contrasting effects on seeking help in different studies. The only other demographic factor that was significantly related to seeking mental health treatment was the number of children, where women with more children were more likely to seek help. In addition, psychological self-concealment was found in mental health studies to impede seeking help. Attitudes and values, including sense of shame, concern with medication side effects, disappointment with treatment options, and perception of mental health professionals as non responsive, not providing quality services, and imposing their own values upon patients, were found in the literature to have a negative effect on seeking help. Also lack of knowledge about postpartum depression and treatment options was mentioned in the literature as preventing women from seeking help.

Individual Determinants: Enabling Factors

Individual and familial resources. The literature focuses mainly on lack of individual and familial resources as a barrier to seeking treatment for postpartum depression, and less on enabling factors to seeking help; therefore the lack of such enabling factors, or barriers, will be the focus of discussion. Insurance coverage and cost of care are often mentioned when discussing barriers to treatment. The fact that insurance companies provide limited insurance coverage for mental health problems and that women need to pay out-of-pocket costs may prevent women from utilizing treatment for postpartum depression (Andrews Horowitz & Cousins 2006; Goodman, 2009; Sobey, 2002). Furthermore, in a European-based study on utilizing services for postpartum depression, women expressed that the cost of care posed a barrier for their access to

services (Chisholm et al., 2004). On the other hand, three studies did not find a significant association between lack of insurance and under utilization of services. In Song et al.'s (2004) study all women were insured, however only 10% of their sample utilized mental health services. There must have been factors other than insurance that contributed to the under-utilization of services. Along these lines, Acri Cavaleri (2005) and McGarry et al. (2009) also found that insurance was not predictive of treatment utilization. McGarry et al. also added that level of income was not a predictor for not seeking help. Abrams et al. (2009), on the other hand, found that financial strains posed as a barrier to seeking help.

Child care was also found to be a barrier for utilizing treatment. Inability to find a caretaker for their baby was expressed by postpartum depressed women as a barrier to accessing mental health services (Chisholm et al., 2004; Goodman, 2009). Ugarriza (2004) added that women enrolled in group therapy did not come to meetings when their baby was ill, even though their mother or mother in law was available to care for the baby. It is interesting to note that in Abrams et al.'s (2009) study postpartum depressed women did not endorse child care as a barrier to seeking help, but rather it was the service providers who claimed that lack of child care is a barrier to seeking help.

Being too busy, or multi-tasking, may also prevent women from utilizing treatment. In Ugarriza's (2004) study of a postpartum support group, one of the reasons women expressed for not participating in the support group was that they just could not take another responsibility upon themselves. Chisholm et al. (2004) and Goodman (2009) stated that lack of time served as a barrier for postpartum depressed women to seeking treatment. Likewise, the most mentioned barriers to seeking treatment for prenatal and

postpartum depression in Acri Cavaleri's (2005) study were time-related and priority-related environmental/logistical barriers, such as being too busy, and that caring for their children and working were more important than seeking treatment.

Community resources. The role of the community as an enabling factor in seeking help was examined in two studies in the postpartum depression literature. Sword et al. (2008) found that expressions of worry and concern and encouragement by family and friends to seek help served as a facilitator for postpartum depressed women to seek help; and McCarthy and McMahon (2008) found that a referral to a mental health practitioner done by a relative or care provider served as a facilitator for women to utilize that care. Sobey (2002) suggested that lack of social support may be a barrier to seeking help for postpartum depression. This also seems likely from the literature on the ultra-orthodox community where there is an under-utilization of mental health treatment due to, among other things, the rabbis' reluctance to refer people to mental health professionals (Greenberg & Witztum, 2001). It is known that social support helps reduce postpartum depressive symptomatology (Chen, Tseng, Chou, & Wang, 2000; Heh et al., 2004; O'Hara & Swain, 1996) however, it is not clear whether social support enhances treatment seeking behavior as well, although according to the Behavioral Model of Health Service Use (Andersen & Newman, 1973) that should be the case.

It appears from the literature that lack of individual and familial resources, including cost of mental health care, inability to find a child caretaker, and being too busy or lack of time, serve as barriers to seeking help for postpartum depression. Interestingly, contrasting findings were found regarding the impact of limited insurance coverage on seeking help. Presence of community resources, namely social support that may

encourage women to seek help, was discussed minimally in the postpartum depression treatment utilization literature. This is especially important to examine when studying the ultra-orthodox community, which is known for its cohesive social and community structuring, on the one hand, but a reluctance to refer people to mental health professionals, on the other. Therefore it is unclear whether the social networks will encourage women to seek help or will discourage them from doing so.

Individual Determinants: Need

In order for utilization of mental health services to take place women with postpartum depression must be aware their condition. This need could be detected and perceived by the woman herself or evaluated by a health or mental health care professional (Andersen & Newman, 1973).

Perceived need. The postpartum depression service utilization literature highlights women's denial of their condition and of their need to seek help. Women tend to minimize symptoms, in general, and women with postpartum depression may be of no exception, trying to minimize the seriousness of their condition and not recognizing the importance of getting help (Abrams et al., 2009; Andrew-Horowitz & Cousins, 2006; Ugarriza, 2004). This reluctance to admit to having depression was apparent in the recruitment attempt for group therapy for postpartum depressed women, where women who were approached did not admit to having depression and therefore did not want to participate in the study (Ugarriza, 2004).

Another reason for not seeking treatment may be women's attribution of their sad feelings to natural hormonal changes and their expectation that they will naturally disappear (Bliszta et al., 2010; Edge & MacKian, 2010; McCarthy & McMahon, 2008;

Sobey, 2002; Sword et al., 2008). Epperson (1999) highlighted the particular difficulty of first time mothers to recognize their condition as postpartum depression because most women expect a phase of adjustment after giving birth. First time mothers may not recognize that what they are experiencing is not within the norm, and therefore may not think there is a need to get help for their condition.

In an attempt to understand how women perceive their postpartum depression, McIntosh (1993) discovered that women explained their condition in terms of external pressures, such as financial problems or the stress of motherhood, therefore perceiving themselves as suffering from a normal reaction to abnormal stressors. These women did not perceive themselves as ill, and therefore did not regard professional intervention as relevant to their problem. Furthermore, the course of depression may be misleading. Women may feel better for a while only to feel depressed again later on. Even though depressive symptoms may have improved they are quite likely to recur (Belsher & Costello, 1988; Solomon et al., 1997) and this might explain why women who were asked why they did not seek help answered that it was because they were feeling better (Acri Cavaleri, 2005).

Perceived need as a facilitator of seeking help was illustrated in Sword et al.'s (2008) study where women said that once they became aware of their symptoms they turned for help. McCarthy and McMahon (2008) and McIntosh (1993) found that women who sought help for postpartum depression did so because their normal functioning had become significantly impaired and they felt a need for relieving their symptoms. Interestingly, it is not clear whether severity of postpartum depression is associated with a higher percentage of receiving treatment. Andrews Horowitz and Cousins (2006)

concluded that women who experienced high depressive symptomatology were more likely to receive psychotherapy than women with low symptomatology. Epperson (1999) reinforces this conclusion stating that when the onset of the depression is abrupt and the symptoms are severe women will be more likely to seek treatment. Brown and Bacigalupo (2006) agree and state that many postpartum women do not seek help until their difficulties accumulate and become overwhelming for them. On the other hand, Acri Cavaleri (2005) found that severity of depression was not significantly predictive of treatment attendance.

This difference in opinion should be examined carefully. In McCarthy and McMahon's (2008) study the sample was very small; in McIntosh's study (1993) it is unclear how the participants' data were analyzed; and Epperson's (1999) and Brown and Bacigalupo's (2006) articles were not empirical studies but rather provided practitioners' experiences. The conclusions in these studies should be, therefore, examined with caution, because they rely on anecdotal information. As to the empirical studies, Andrews Horowitz and Cousins (2006) performed a chi square test to examine the association between severity of symptoms and receiving psychotherapy, whereas Acri Cavaleri (2005) performed a logistic regression to predict treatment attendance as a function of symptom severity. The differences in the conclusions could be due to the difference in the analyses. In addition, Acri Cavaleri looked at women who did not attend treatment, while Andrews Horowitz and Cousins looked at women who did attend treatment. Reasons for not attending treatment could be different from reasons of actually attending treatment. Moreover, both Acri Cavaleri and Andrews Horowitz and Cousins had small samples, which pose a limitation to the generalizability of studies, and therefore their

conclusions may be specific to their samples only. In addition, small samples, as in these cases, reduce the statistical power of the data analyses, therefore requiring a cautious interpretation of non-significant findings.

Evaluated need. Many women are not aware of the severity of their depression and as a result do not recognize their need for help. A professional evaluation can therefore be quite helpful in such cases. Sobey (2002) reported how the rate of detection and treatment of postpartum depression increased as a result of a behavioral health care organization's initiative to screen all women giving birth for postpartum depression using the EPDS (Cox et al., 1987). More than half of the women who positively screened for postpartum depression accepted treatment referrals. Also, systematic screening for postpartum depression at ambulatory health settings using the EPDS at the 6 week postpartum visit was found to be an effective way to identify women with postpartum depression (Georgiopoulos et al., 1999). In addition, studies carried out in the United States and in Europe have shown that screening for postpartum depression improves the diagnosis of postpartum depression (Andrews Horowitz & Cousins, 2006; Sobey, 2002). McIntosh (1993) encourages health professionals to take a more proactive role in detecting postpartum depression, specifically through routine screening for postpartum depression.

The literature is quite clear about the fact that perceived or evaluated need must be present in order for women to seek help for their postpartum depression. However, women might deny their condition, minimize symptoms or deny their need to seek help. They might not perceive themselves as ill, attributing sad feelings to hormonal changes, perceiving their condition as a reaction to external pressures, not recognizing depressive

symptoms, or feeling that the depression is gone. All these factors reduce the probability that a woman will seek help for her postpartum depression. As to severity of depression, contrasting results were found in the literature, therefore further investigation is needed. Some investigators claimed that more severe symptoms lead to a higher recognition of need and ultimately to a higher treatment utilization rate (Andrews Horowitz & Cousins, 2006; Brown & Bacigalupo, 2006; Epperson, 1999; McIntosh's, 1993), whereas other investigators found no significant association between severity of depression and seeking help (Acri Cavaleri, 2005).

Services Utilization

After giving birth women quite frequently come in contact with health care professionals, namely general practitioners, midwives, health visitors, OB/GYNs, and pediatricians, for routine checkups or for reasons concerning their or their child's physical state. However, mental health professionals are not consulted routinely by postpartum women. Interestingly, women with postpartum depression utilize health care services to a greater extent than mental health services, and they usually present their problem to their health care provider as physical, rather than a depressive state (Chisholm et al., 2004; Watt, Sword, Krueger, & Sheehan, 2002; Webster et al., 2001).

In two studies, one carried out in Europe (Chisholm et al., 2004) and the other in Australia (Webster et al., 2001), findings revealed that women with postpartum depression tended to use primary care practitioners more frequently than mental health professionals. Moreover, women with postpartum depression tended to use primary care services more intensively than women without postpartum depression (Chisholm et al., 2004; Webster et al., 2001). Similarly, in another study examining health service

utilization in women with postpartum depression, increased health service utilization was associated with depressive symptomatology (Dennis, 2004). In addition, over half of those who highly utilized family physicians and public health nursing services in the first month postpartum had depressive symptomatology. In a Canadian study women who screened positively for postpartum depression did not report utilizing any mental health services, such as a psychiatrist, a social worker, or a psychologist; the women did report utilizing general health care services, but none of them was identified by the health care practitioners as having postpartum depression (Watt et al., 2002). Epperson (1999) adds that often women are confused about whom to turn to for help; they usually experience postpartum depression symptoms after their 6 week postnatal OB/GYN appointment, and their child's pediatrician, who they see quite frequently, is perceived by them as the child's physician.

Mental Health Outcomes

Investigators examining various types of professional treatments, such as pharmacological and therapeutic interventions, concluded that they have a positive effect on reducing postpartum depression symptoms. Satisfaction with services was discussed in only one study (McIntosh, 1993) in which the reactions of women who sought help from family and friends ranged from perceiving that support as extremely supportive to perceiving it as indifferent or even hostile. On the other hand, women who sought professional help and felt the help was in accord with their own perception of their depression and its causes, appreciated the help. However, most of the women who sought professional help were not satisfied with some aspect of the help they received.

Summary

Seeking help for postpartum depression is a function of a woman's predisposition to use mental health services, which includes socio-demographic factors and psychological characteristics, as well as values and attitudes towards seeking mental health care; individual, familial, and communal factors that enable or pose barriers to use of mental health services; and the woman's perceived or evaluated need for treatment. In addition, societal determinants, such as cultural norms, impact the woman's decision to seek help directly or through impacting the health and mental health care service system's resources and organization. There may also be barriers within the health care system that may pose barriers to detecting postpartum depression and referring women to treatment. In addition, discovering whether service utilization helped a woman, both according to her perception as well as based on a professional evaluation, is important in order to improve and maintain her mental health status.

Critical Analysis of the Behavioral Model of Health Service Use

There are a number of strengths to the Behavioral Model of Health Service Use (Andersen & Newman, 1973). First, it is a holistic model- it accounts for psychological and biological factors, as well as for social and cultural factors. It focuses on the individual and the factors that impact the individual's decision to seek help, and accounts for the impact of society on that decision. In other words, the behavior of seeking help is determined by the nature of a person, coupled with nurture of their social environment (i.e., the impact of the social environment on the person). According to this model, although individuals have predisposing determinants that impact their seeking help, there

still is a possibility to change from the condition they are in. The enabling factors are especially helpful in promoting such a change.

In addition, the model is strengths-based; it focuses on promoting access to help instead of on barriers to seeking help. The postpartum literature on seeking help mostly highlighted barriers to seeking help, and this model could help shift the focus to more enabling features. Moreover, the model respects diversity by suggesting that societal and cultural norms have an effect on an individual's help seeking, therefore proposing that different cultures may have different impacts on a person's decision to seek help.

As to limitations, the model does not explicitly account for barriers in the health care system. As mentioned earlier, practitioners may not always identify a woman's problem due to lack of knowledge about postpartum depression or lack of understanding of the cultural differences in the expressions of postpartum depression. If a woman does not realize that she has postpartum depression and her practitioner does not identify it either, then most likely she will not seek treatment. Another limitation refers to the fact that the model does not account for utilization of alternative services. In qualitative studies examining women's perceptions of their postpartum depression and treatment preferences, many women stated that they turned to family and friends for help with their depression (McIntosh, 1993; Ugarriza, 2004). In addition, family support was found to help reduce postpartum depressive symptomatology (Hung & Chung, 2001); and peer support in a group setting has also been found to be effective (Alder & Truman, 2002; Chen et al., 2000; Dennis, 2003; Meager & Milgrom, 1996; Rice & Slater, 1997; Seguin, Potvin, St-Denis, & Loiselle, 1999). These "service" possibilities are not accounted for in the Behavioral Model of Health Service Use (Andersen & Newman, 1973), which

focuses on utilization of professional services. However, due to their positive influence on postpartum depression, informal services should be considered as a service utilization possibility, especially when dealing with the ultra-orthodox community, which is very cohesive and supportive, and in which the rabbi has a significant role in advising and helping his congregants.

Toward a Revised Model: Adding Elements from the Network-Behavioral Model to the Behavioral Model of Health Service Use

Pescosolido (1991) suggests a model of seeking help that accounts for multiple professional and non-professional services. This model, the Network-Episode model, focuses on societal forces that influence an individual's seeking help, and elements from it can serve as a supplement to the Behavioral Model of Health Service Use (Andersen & Newman, 1973). Pescosolido (1991) claims that help seeking involves any contact for advice or treatment during an illness episode. These contacts may be professional or non-professional, and a number of them may be contacted simultaneously or in sequence. The Network-Episode model suggests that the process of decision making is dynamic in that individuals combine a series of seeking help decisions from a range of alternatives, and these decisions can change over time. In addition, the model proposes that the search for care is socially organized. In other words, the interaction in social networks is the mechanism that underlies the decision-making process: The individuals' network ties, with their cultural characteristics, determine how individuals evaluate need, gather information on access to services, and perceive the fit of medical options to their socio-cultural status.

The Network-Episode model's (Pescosolido, 1991) view of the function of social networks can complement the Behavioral Model of Health Service Use (Andersen & Newman, 1973) in its view of the decision making process. Although the Behavioral Model of Health Service Use sees the subjective state of the individual as the mechanism that affects the individual's decision to seek help, it does call attention to the importance of social ties in this decision process. The attitudes and beliefs of the network ties as depicted in the Network-Episode model seem comparable to the societal norms in the Behavioral Model of Health Service Use. In addition, the network ties themselves can serve as the communal enabling factors in the Behavioral Model of Health Service Use. On the other hand, the Network-Episode model's view of societal networks as non-professional sources that can be contacted in order to provide help is an element that is not included in the Behavioral Model of Health Service Use; however it seems important in light of the postpartum depression literature. Therefore, a synthesis of these elements of the Network-Episode model into the Behavioral Model of Health Service Use is suggested, and the revised model can be viewed in Figure 2. The rationale for adding non-professionals as a source of help for postpartum depression will be provided in the next section.

Seeking Help from Non-Professional Sources

In a study on seeking help for postpartum depression, McIntosh (1993) discovered that women who sought help for their postpartum depression turned to family and friends (in 16 cases) slightly more often than to professionals (in 14 cases). Seeking help from professionals usually occurred only when symptoms were so severe that the women's normal functioning had become impaired to an unacceptable degree. In a number of

studies non-professional support, such as partner and social support, was found to have a positive effect on women with postpartum depression (Shaila et al., 2000; Hung & Chung, 2001; Logsdon & Birkimer 1997).

In an Israeli study on seeking mental health assistance, the major sources of help that people turned to were mental health professionals (in 46% of the cases), family doctors (in 25% of the cases), family or friends (in 19% of the cases), and other medical care (in 10% of the cases) (Rabinowitz, Gross, & Feldman, 1999). However, these researchers did not specifically examine seeking help for postpartum depression, and did not look at differences in the source of help sought among various groups of people, such as the ultra-orthodox. Firrer (2001) specifically looked at help seeking patterns of ultra-orthodox people and found that when confronted with a mental health problem people tended to turn to family and rabbis to the greatest extent, to professional help to a lesser extent, and to friends to the least extent. It should be noted, however, that Firrer interviewed people who were already in treatment at a mental health clinic. It is not clear what sources of help the larger ultra-orthodox community would turn to in case of a mental health problem, in general, and postpartum depression, in particular. Greenberg and Witztum (2001) and Lifshitz and Glaubman (2004) point out that when studying the ultra-orthodox community it is important to bear in mind that a major source of help that ultra-orthodox people turn to in the case of mental health problems is their rabbi, who guides and supports his community in all aspects of life (Greenberg & Witztum, 2001; Lifshitz & Glaubman, 2004).

Another factor that emphasizes the importance of non-professional sources of help for postpartum depression is the cultural factor. The literature on culture and

postpartum depression includes descriptions of various cultural rituals that can help alleviate postpartum depression symptomatology, especially if the woman perceives them as helpful (Harkness, 1987; Heh et al., 2004; Huang & Mathers, 2000; Lee, 2000; Nahas & Amasheh, 1999; Stewart & Jambunathan, 1996; Stuchbery, Matthey, & Barnett, 1998). The most common cultural ritual found in the literature is that of resting for a period of time after giving birth, observing a diet and other restrictions, and receiving support from the extended family (usually the mother or mother in-law). These rituals, coupled with the support of family, were found to play a significant role in reducing the symptoms of postpartum depression. Along the same lines, in a study conducted in Israel that focused on the effect of religion on postpartum depression, Dankner et al. (2000) concluded that the social-communal support in the ultra-orthodox community was associated with decreased postpartum depression symptomatology.

The importance of non-professional help in the treatment of postpartum depression is apparent in the literature. This is true in the general population, and seems even more significant and important in the ultra-orthodox community, where the rabbi plays a central role, and the community provides significant support for women with postpartum depression. Therefore, when studying help seeking patterns, especially in the ultra-orthodox community, it is of essence to include non-professional help as a source of help for postpartum depression.

Conclusion

The review of the literature has shown that despite the negative effects that untreated postpartum depression can have on women and their families, many women remain untreated. What is additionally surprising is that not many studies have extensively and systematically examined the issue of barriers or promoting access to care, and therefore it is not clear what steps should be taken in order to ensure that more women receive treatment. Applying a comprehensive model to postpartum depression treatment utilization could have an immense effect on potentially increasing the number of women who receive treatment. The Behavioral Model of Health Service Use (Andersen & Newman, 1973) together with elements from the Network-Episode model (Pescosolido, 1991), seems to fit with the postpartum help seeking literature, and provides a comprehensive view of the subject. This model provides a prediction of help seeking for postpartum depression as well as an explanation of why women seek or do not seek help for their postpartum depression.

Research Questions

Based on the literature reviewed and The Network-Behavioral Model of Seeking Help for Postpartum Depression the following research questions were examined in this dissertation:

1. What factors predict 6-week follow-up depression scores?
2. What factors predict utilizing professional help for post partum depression?
3. What factors predict utilizing non-professional help for postpartum depression?
4. Which source of help is used to a greater extent by religious and non religious women?
5. What factors predict 6-month follow-up depression scores?
6. Is there a difference in the level of depressive symptomatology between the 6-week screening and the 6-month screening?

Chapter II:

METHOD

Design

The study design was a prospective longitudinal design with three measurement points. Participating women were recruited 1-2 days postpartum while in the hospital⁵, and based on the Network-Behavioral Model of Seeking Help for Postpartum Depression were assessed for presence of factors associated with treatment utilization. They were followed up and screened for postpartum depression at 6 weeks postpartum. Those who screened positive for depressive symptomatology were followed up at 6 months postpartum in order to check if they sought help for their condition and if yes, whom they sought help from and whether they were satisfied with the type of help that they sought; and to assess whether they still had depressive symptoms.

Participants

Women were recruited from a large hospital in Jerusalem, Israel. The hospital has approximately 1000 births a month. Around 70% of women giving birth in this hospital are ultra-orthodox, 20% are orthodox, and 10% are non-orthodox/ non-Jewish. A brief description of the ultra-orthodox community will be provided in order to understand the context in which the study took place.

The ultra-orthodox community

Within Judaism the ultra-orthodox people are distinct by their separate life style, their modesty in clothing and behavior (Tzniut), paramount concern to keep the

⁵ Recruitment was from Sha'arei Tzedek hospital, a large hospital in Jerusalem, Israel.

commandments of the Torah and Jewish law, and avoidance of secular society (Greenberg, Stravynski, & Bilu, 2004). The ultra-orthodox ideology places the highest spiritual value on religious study and practice. Therefore all boys study in religious Torah schools (Yeshivas), and once married most men continue learning in Torah institutions (Auslander, 2003). The rabbi, who is the leader of his community, plays a significant role in the life of his congregants by providing them with advice and guidance, in a personal or public way, on all aspects of life (Greenberg & Witztum, 2001).

The nuclear family is the central social unit in the ultra-orthodox culture, and its structure is hierarchal, with the father as the head. Having many children is both an obligation in the ultra-orthodox culture as well as an ideal, and therefore the ultra-orthodox population is characterized by a high birth rate (Auslander, 2003). In a population survey conducted in Jerusalem between 1992 and 1993 the researchers found an average of 7.0 people per household in ultra-orthodox neighborhoods in Jerusalem, as opposed to a 3.9 average in the entire city (Jerusalem Municipality, 2006). The ultra-orthodox sector accounts for 17% of the Israeli population and about 70% live in Jerusalem and Bnei Brak (Lifshitz & Glaubman, 2004). Choshen, Korach, and Diskin (2005) from the Jerusalem Institute for Israel Studies (JIIS) claim that ultra-orthodox women are expected to give birth during the course of their life to an average of 7.7 children in comparison to an average of 3 expected births in the overall Israeli population.

The overall Jewish Israeli population

Postpartum depression treatment utilization has not been studied in a systematic way in Israel, and therefore it would be difficult to conclude that factors affecting

treatment utilization are unique to the ultra-orthodox community without comparison groups. Also, due to the limited literature on the subject, it is important to study the overall population in order to be able to generalize the findings of the study to a larger population. Therefore all Jewish women⁶ were eligible to participate in the study⁷ and all were recruited at Sha'arei Tzedek hospital.

Eligibility Criteria

Women were eligible for the study if they met the following criteria:

1. Were Jewish
2. Were Hebrew speaking
3. Were 18 years old or above
4. Gave birth to a live baby
5. Gave birth at Sha'arei Tzedek hospital and were in the maternity department up to 2 days postpartum.

Sample Demographics

One thousand and fifty nine (1059) women participated in the study. Their age ranged from 18 to 45 with a mean age of 29 ($SD= 5.41$); 1040 (98.5%) participants were married with an average of 3.3 children ($SD= 2.31$, ranging from 1 to 13 children) and 3 previous pregnancies ($SD= 2.86$, ranging from 0 to 16 previous pregnancies); participants' income was overall average (92,000 NIS, equivalent to \$26,250 yearly income); 512 (48.5%) participants defined themselves as ultra-orthodox, 343 (32.5%) as

⁶ Categorized as ultra-orthodox, orthodox, traditional, or secular, based on the religious affiliation categorization used in Dankner et al.'s (2000) study.

⁷ Women from other religions may have traditions and views regarding seeking help for postpartum depression that are different from those held by Jewish women. This entails reviewing literature on other religions which is beyond the scope of this study. Therefore only Jewish women participated in this study.

orthodox, 121 (11.2%) as traditional, and 80 (7.8%) as secular. Almost 14% (N= 146) of participants had depression in their past and 17.2% (N= 180) had a family member who was treated for depression. Almost all (N= 981, 94%) of the women said child care is available to them upon need.

Procedures

Data were collected at three time points: 1-2 days postpartum, 6 weeks postpartum, and at 6 months postpartum. The 1-2 days postpartum date was chosen as a baseline assessment time because a large sample of women can be accessed quite easily at the hospital maternity department. The 6 weeks postpartum date was chosen based on Cox et al.'s (1987) recommendation that the EPDS (Cox et al., 1987) be completed during the sixth to eighth week postpartum. Women who were in the Sha'arei Tzedek maternity department were recruited starting on June 29, 2008 and ending on February 2, 2009.

Participation was confidential, but not anonymous in order for the researcher to track respondents for administering them the second (Follow-up I) and third (Follow-up II) surveys. All this was explained in the initial recruitment meeting. At the follow-up phases women were reminded that they agreed to participate in the study, and then asked if they agree to answer the follow up surveys. Telephone contacts at both follow-ups were attempted up to four times in an interval of two weeks. Women who could not be contacted after four attempts were dropped from the study. In addition, women who did not want to participate at the time of the call were asked if they could be contacted at a later-on point. Women who answered "yes" were contacted at the alternate date they gave

or within two weeks, in lack of such alternate date. Women who answered “no” were thanked and dropped from the study.

Recruitment and baseline assessment

Participants were recruited 1-2 days postpartum from the Sha'arei Tzedek maternity department. The nurses on duty at the department let the researcher or research assistant know which women in the department could be approached. These women were approached individually by the researcher or research assistant, who provided an explanation of the study, including its purposes and all procedures. Women who agreed to participate signed an informed consent and were then asked to fill out a survey that included a demographic questionnaire and a questionnaire regarding factors that may promote or inhibit their mental health care utilization (see Appendix I). This baseline survey was given for the purpose of gathering background information, and checking for factors that may predict seeking help for their depression. The informed consent and survey were handed out in an envelope. Women were asked to return the envelope with the materials to the nurse stand or to the research assistant. Returned envelopes were placed in a locked closet.

Follow-up I assessment

The researcher or research assistant contacted all participants by telephone at 6 weeks postpartum and screened them for postpartum depression using the EPDS. Women who screened positively ($EPDS \geq 9$) for postpartum depression were told that they have postpartum depression symptoms and may have postpartum depression. They also received an explanation of what postpartum depression is and what the different treatment options are, and were referred for treatment. A woman who scored 1 or greater

on the EPDS question about thoughts to harm herself was referred for treatment even if she did not screen positively for postpartum depression.

Referrals were made to a number of facilities that offered different treatment options in order to allow women to choose the option that suits them best. For professional mental health care women were referred to: a family therapy clinic that offered psychological treatment and had a sliding fee scale, starting at almost no charge; to public psychiatric clinics near their home that provide free psychiatric treatment and low cost psychological treatment; to private practice providers (psychiatrists, psychologists and social workers); and to a telephone postpartum depression support system. For non-professional mental health support women were referred to a Mother-to-Mother project where experienced mothers are paired with postpartum mothers to offer guidance and support.

Follow-up II assessment

All participants who screened positively at Follow-up I were surveyed by telephone at 6 months postpartum, by the researcher or research assistant, in order to find out whether they utilized mental health care or not, what type care they utilized, whether they still have postpartum depression, and whether they were satisfied with the help they got (if they sought help). The second screening for postpartum depression was for the purpose of assessing whether symptomatology decreased and whether utilizing care might have contributed to the rate of postpartum depression at 6 months. A four and a half to five month interval between the two follow up phases was chosen in order to allow enough time for participants to seek help.

Measures

The Edinburgh Postnatal Depression Scale (EPDS)

Presence and severity of postpartum depression was measured by the EPDS (Cox et al., 1987) during follow-up I and II assessments. (See Appendix II for follow up I survey; EPDS questions are items 1 through 10. See Appendix III for follow up II survey; EPDS questions are items 17 to 26). The EPDS was chosen because it was found to be highly acceptable by postpartum women, and because it is widely used in healthcare research, including prevalence studies carried out in different parts of the world (Ghubash & Abu-Saleh, 1997; Chaaya et al., 2002); treatment studies (Alder & Truman, 2002; Sword, 2005; Tiwari, 2005), and studies that examine the association between postpartum depression and other factors (Dankner et al., 2000; Dennis, 2003; Mezey, 2005; Patel, Rodrigues, & DeSouza, 2002; Rubertsson, 2005; Templeton, Velleman, Persaud, & Milner, 2003). In addition, many studies reported high response rates (Cox & Holden, 1994). Moreover, the EPDS is very clear and understandable, and is short and can be filled out in 5 minutes, which minimizes the response burden.

The EPDS is a self-report scale that consists of 10 short statements of common depressive symptoms, each followed by four possible responses, which are in a Likert scale format ranging from low severity (0 = normal response) of the symptom to high severity (3 = severe response) of the symptom. The woman chooses the responses that best describe the way she has been feeling during the past seven days. It is important that women answer the entire EPDS on their own in order to increase the sensitivity and specificity of the measure.

The scoring of the EPDS is done by assigning a number from 0 to 3 to the four response categories. Statements 3 and 5 through 10 (items 3, and 5 through 10 on the survey in Appendix II; and items 19, and 21 through 26 in Appendix III) must to be reverse-coded. Scores on all 10 statements are then summed, resulting in a possible score of 0 to 30. The sum score represents the level of postpartum depression symptomatology. Scoring at or above the cut score, determined by Cox et al. (1987) in their validation study as 13, indicates that sufficient depressive symptoms are present to make presence of postpartum depression likely, while scoring under the cut score indicates that sufficient symptoms of depression are not present, therefore it is not likely that the woman has postpartum depression. If the EPDS is used in a research study as an only measure for depression (as in this study) and/or as a first assessment, Cox et al. (1987) recommend using a cut score of 10 or above, because it is likely to detect almost all cases of depression with very few false negatives. It is important to note that the EPDS is a screening tool, not a diagnostic one, which means that an EPDS score above threshold does not indicate that the person has depression, but rather that sufficient depressive symptoms are present to make this likely (Cox & Holden, 2003).

In their validation study Cox et al. (1987) examined the psychometric properties of the EDPS, using a cut score of 13 or above. The split-half reliability was found to be .88, and the standardized alpha coefficient was .87. Using a comparison to the Research Diagnostic Criteria (RDC; Spitzer, Endicott, & Robins, 1975) the sensitivity of the EPDS was 86%, and the specificity was 78%. Furthermore, Cox et al. claim that failed detection of cases can be reduced to fewer than 10% when the cut score is 10 or above. The positive predictive value of the EPDS was found to be 73%, and when it was calculated a

second time after excluding the “normal” women in the study (those who were not considered by their health visitors as having problems), and the positive predictive value increased to 83%. In a community based sample using a cut score of 10 or above sensitivity was 89%, specificity 82%, and the positive predictive value was 39% (Murray & Carothers, 1990).

A wide range of studies validated the EPDS English version as well as other language versions, many times changing the cut score to a score that was found to be more appropriate for the specific culture under investigation. The cut scores in a chosen sample of studies ranged from 9 to 13, the sensitivity ranged from as low as 68% to as high as 100%, the specificity ranged from 71% to 92%, and the positive predictive values ranged from 30% to 76% (Ayadin, Inandi, Yigit, & Hodoglugil, 2004; Benvenuti, Ferrara, Niccolai, Valoriani, & Cox, 1998; Boyce & Stubbs, 1993; Guedeney & Fermanian, 1998; Murray & Carothers, 1990).

Hebrew language version of the EPDS

Due to the fact that the study took place in Israel the EPDS was administered mainly in Hebrew. It was administered in English to English speakers who preferred the English version. Cox and Holden (2003) provide a Hebrew translation of the EPDS (Fisch, Tadmor, Dankner, & Diamant, 1997; Glasser & Barell, 1999). An electronic search of a number of databases, including PsychInfo, PubMed, CINAHL, and Medline, using the terms “EPDS” and “Israel” was conducted in order to find studies that used the Hebrew version of the EPDS. Seven articles (Bloch, Rotenberg, Koren, & Klein, 2006; Dankner, Goldberg, Fisch, & Crum, 2000; Eilat-Tsanani et al., 2006; Fisch, Tadmor, Dankner, & Diamant, 1997; Glasser & Barell, 1999; Glasser, Barell, Boyko et al., 2000;

Galsser, Barell, Shoham, et al., 1998), which were based on four studies, were found. None of these researchers performed a validation study of the EPDS; however they all seem to have utilized the same translation, which appears in the Guide to the Edinburgh Postnatal Depression Scale (Cox & Holden, 2003). Therefore, this translation was used in the current study. None of the researchers in the Israeli studies reported psychometric properties of the Hebrew version of the EPDS, and they used a cutoff score of 9 (Bloch, Rotenberg, Koren, & Klein, 2006; Dankner, Goldberg, Fisch, & Crum, 2000), 10 (Glasser, Barell, Boyko et al., 2000; Galsser, Barell, Shoham, et al., 1998), or 13 (Eilat-Tsanani et al., 2006). A cutoff score of 9 was therefore utilized in this study, due to the fact that a relatively low cutoff score is recommended by the developers of the EPDS (Cox & Holden, 2003), and it was found to be appropriate in two out of the four Israeli studies and in other screening studies around the world. Cronbach alpha for the EPDS in this study was .76 in follow-up I and .84 in follow-up II.

***The Attitudes Toward Seeking Professional Psychological Help Scale
(ATSPPHS)***

In order to measure attitudes toward seeking help the ATSPPHS (Fischer & Turner, 1970) was used at baseline (see Appendix I for survey; ATSPPHS questions are items 11 through 39). This scale consists of 29 items in which respondents are asked to rate on a 4-point Likert type scale (ranging from 0 to 3) the extent to which they agree (0) or disagree (3) with each item. Scores can, therefore, range from 0 to 87, with higher scores indicating more positive attitudes toward seeking psychological help. Eleven items out of the 29 are positively worded and 18 are negatively worded. The negative items are reversed for scoring purposes. In their initial study, Fischer and Turner (1970) reported a

.86 internal reliability estimate for the entire scale. They also conducted a factor analysis and found four possible dimensions within the overall scale. Factor I is recognition of personal need for professional psychological help; factor II is tolerance of the stigma associated with psychiatric help; factor III is interpersonal openness regarding one's problems; and factor IV is confidence in the mental health professional. The internal consistency estimates of the subscales were as follows: Factor I $\alpha = .67$; factor II $\alpha = .70$; factor III $\alpha = .62$; and factor IV $\alpha = .74$. The intercorrelations were fairly low, ranging from .25 to .35, with the exception of "need" and "confidence", which correlated at .58, demonstrating that the four factors were reasonably independent. The ATSPPHS was used in several studies, and total scale internal consistency estimates were quite high: .90 (Vogel & Wester, 2003), .87 (Capeda-Benito & Short, 1998), .84 for a British Asian sample, .81 for a Western sample, and .77 for a Pakistani sample (Sheikh & Furnham, 2000).

In the current study, due to concerns raised by rabbis, minor changes were made to the wording of some questions. In addition, the four factors were used as separate subscales. Factor I, recognition of personal need for professional psychological help, represented the operationalization of the perceived need component of the model. Factor II, tolerance of the stigma associated with psychiatric help, represented the operationalization of the sense of shame component of the model, which is a part of the predisposing attitudes and values. Factor III, interpersonal openness regarding one's problems, represented the operationalization of the predisposing psychological characteristics component of the model. And Factor IV, confidence in the mental health professional, represented the operationalization of the model components of perception of

provider as non-responsive and as providing non-quality services, which are part of the predisposing attitudes and values.

Hebrew translation of the ATSPPHS

The ATSPPHS was translated into Hebrew, using a double-blind method, and used in Israel in a study that compared a group of callers to a radio counseling program to a group who received counseling in a child guidance clinic on attitudes toward seeking psychological help (Raviv, Raviv, & Yunovitz, 1989). The internal consistency of the translation in the Israeli study was .90. Raviv et al. used the four factor scores (sub-scale scores) as well as the total score in the analysis, and found significant differences between the groups on three of the four factors as well as in the total score. The factor ‘confidence in mental health practitioner’ was the only factor that was not significant. The Hebrew translation and the English version (for English speaking participants) were used in the current study. Cronbach alpha’s for the four ATSPPHS sub-scales in this study were .68, .69, .61, and .72, respectively.

Socio-demographic questionnaire

Based on the postpartum depression seeking help literature, a number of socio-demographic variables were of interest in the current study, and were assessed during baseline using a questionnaire developed especially for the study. These variables included age, number of children, number of previous pregnancies, marital status, religious affiliation (categorized as ultra-orthodox, orthodox, traditional, or secular, based on the religious affiliation categorization used in Dankner et al.’s (2000) study), and personal or familial history of depression (see Appendix I, items 1 through 7 for exact questions). Race, which is usually included in studies performed in the United States, was

not examined in the proposed study, due to the fact that the entire sampling frame consisted of White Jewish women. The religious affiliation variable was reversed coded in order for the higher number to represent the higher end of the value.

Enabling factors questionnaire

A number of enabling factors were assessed in the study at baseline through questions that were created especially for the study. These factors included level of income (personal and familial), child care, and social norm (the social norm of those close to us for seeking help). The social norm question was created by Bayer and Peay (1997) who found that it uniquely predicted help-seeking intent, in a way that those who were likely to seek help responded to this item more favorably. It was used in Bayer and Peay's study, as well as in other studies (e.g., Vogel, Wester, Wei, & Boysen, 2005) as a single observed indicator of the social norm variable. People rate their responses on a 7-point Likert scale, ranging from 1 (likely) to 7 (unlikely). (See Appendix I, items 8 through 10 for questions). The social norm variable was reversed coded in order for the higher number to represent the higher end of the value.

Seeking help questions

At the 6 month follow up assessment women were asked if they sought help for their postpartum depression (a yes/no question), and if yes from whom. Based on the literature, a number of possibilities for the source of help were given (see Appendix III, items 1 and 2 for questions).

Outcomes measure

At the 6 month follow up women were evaluated for presence of postpartum depression symptomatology using the EPDS (see Appendix III, items 17 through 26), and

for satisfaction with the help they received (see Appendix III, items 3 through 16 for questions). The EPDS is regarded as an evaluation measure of depression, because the woman is told whether she has postpartum depression symptomatology. Level of satisfaction questions were reversed coded in order for the higher number to represent the higher end of the value.

Please refer to Figure 3 for a depiction of the measures that were used in the study to operationalize each of the constructs of the Network-Behavioral model of Seeking Help for Postpartum Depression, as well as the specific variables that were examined.

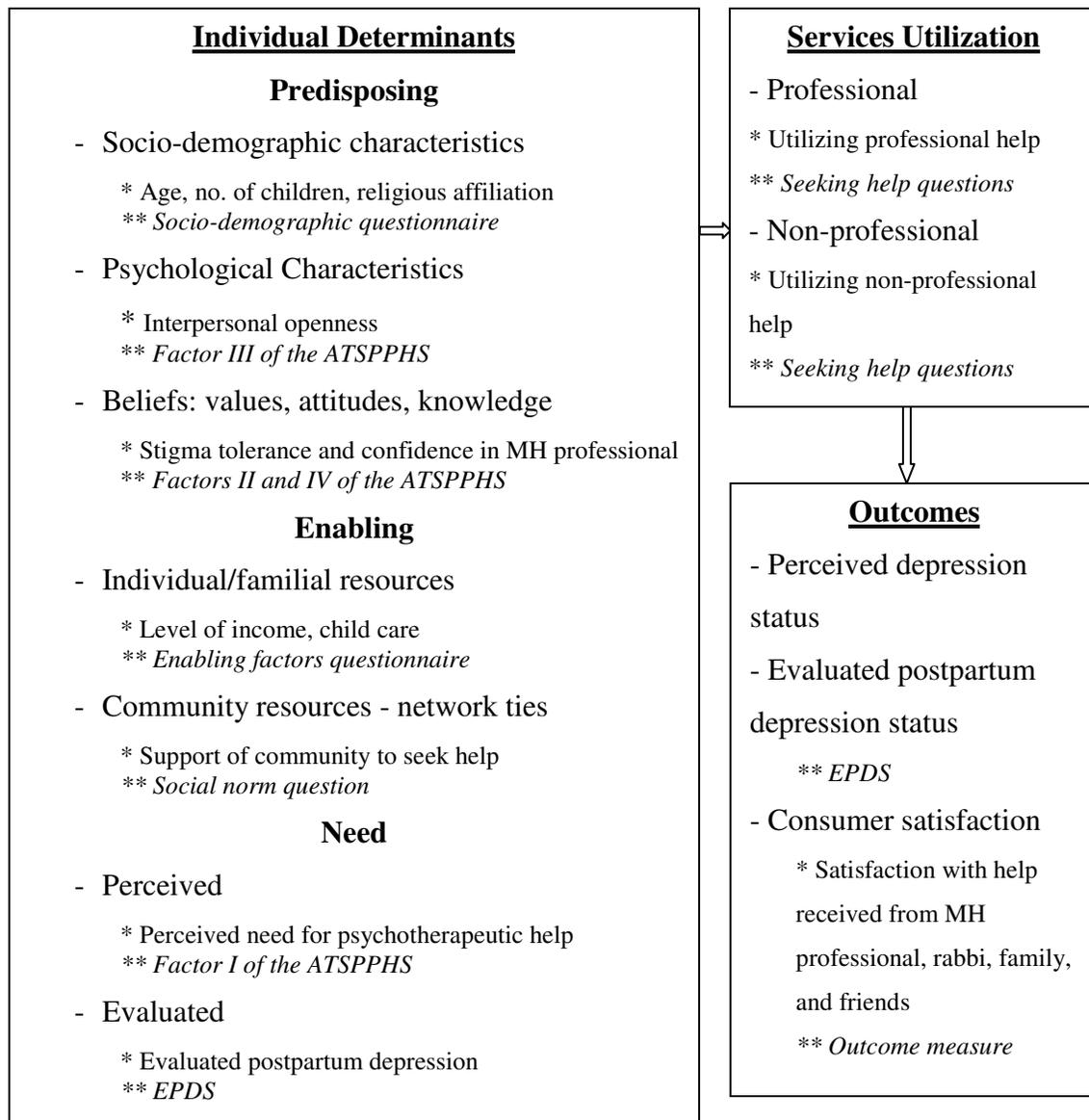


Figure 3. Operationalization of the Network-Behavioral Model of Seeking Help for Postpartum Depression:

* Variables that were examined in the dissertation.

** *Measures that were used to operationalize the constructs of the model.*

Notes: A. Societal determinants are assumed to affect the individual determinants and were not measured directly in this study.

B. The health and mental health care system's effect on seeking help is beyond the scope of this study, and therefore was not examined.

Data analysis

Research question 1: What factors predict 6-week follow-up depression scores?

A logistic regression analysis was used to address this research question. The dependent variable was a dichotomous variable for whether a woman screened positive or negative for postpartum depression symptomatology as indicated by the total score of the woman on the EPDS (Cox et al., 1987) at follow up I assessment (see Appendix II, items 1 through 10). An EPDS score of 9 or above indicated a positive screening, and an EPDS score under 9 indicated a negative screening. The independent variables were continuous or categorical and entered the analysis in the following order: Age, number of children, number of previous pregnancies, marital status, religious affiliation (coded 0 = secular, 1 = traditional, 2 = orthodox, and 3 = ultra- orthodox), past depression, family history of depression treatment, income, and child care (see Appendix I, items 1 through 9).

Research question 2: What factors predict utilizing professional help for postpartum depression?

Logistic regression analysis was used to address this research question. The dependent variable was a dichotomous variable for whether the women who were identified as having postpartum depression symptomatology on the EPDS at follow up I assessment (i.e. those who scored at 9 or above) sought help (coded 1) or not (coded 0) from a professional source by the time of the follow-up assessment. Health insurance coverage was not included in the analysis because of the universal health care system and government funded community mental health clinics that exist in Israel. Knowledge about postpartum depression and available treatments for it were controlled for because all women who screened positive at baseline were provided with information about

postpartum depression and available treatments, and were referred to treatment. Seeking help from a professional source was coded 1 if a woman answered “yes” to the seeking help question (see Appendix III, item 1) *and* marked an X next to at least one professional source of help (see Appendix III, item 2, sub-items 1 through 7). The independent variables were categorical or continuous, and entered the analysis as structural sets, based on the Network-Behavioral Model of Seeking Help for Postpartum Depression in the following order:

1. The first set to enter the analysis was the socio-demographic characteristics and psychological characteristics set, which included age, number of children, religious affiliation (coded 0 = secular, 1 = traditional , 2 = orthodox, and 3 = ultra-orthodox) (see Appendix I, items 1, 2 and 5), and the interpersonal openness regarding one’s problems factor (factor III) of the ATSPPHS (Fischer & Turner, 1970) (see Appendix I, items 17, 20, 23, 27, 31, 32, and 39; factor III represented the sum of these items).
2. The second set was the attitudes set, which included factors II (tolerance of the stigma associated with psychological help) (see Appendix I, items 13, 24, 30, 37, and 38; factor II represented the sum of these items) and IV (confidence in mental health professionals) (see Appendix I, items 11, 12, 18, 21, 22, 25, 26, 29, and 33; factor IV represented the sum of these items) of the ATSPPHS.
3. The third set was the enabling set that included the variables in the Enabling Factors Questionnaire: level of familial income, child care, and social norm (see Appendix I, items 8 through 10).

4. The fourth set included the need component, which was comprised of two variables: level of perceived need, which was operationalized by factor I (recognition of personal need for professional psychological help) of the ATSPPHS (see Appendix I, items 14 through 16, 19, 28, and 34 through 36; factor I represented the sum of these items); and level of evaluated need, which was operationalized by the severity of postpartum depression symptoms, as indicated in the EPDS (Cox et al., 1987) follow-up I assessment (see Appendix II, items 1 through 10).

Research question 3: What factors predict utilizing non-professional help for postpartum depression?

Logistic regression analysis was used to address this research question. The dependent variable was a dichotomous variable for whether the women who were identified as having postpartum depression symptomatology on the EPDS at follow up I assessment (i.e. those who scored at 9 or above) sought help (coded 1) or not (coded 0) from a non-professional source by the time of the follow-up assessment. Seeking help from a non-professional source was coded 1 if a woman answered “yes” to the seeking help question (see Appendix III, item 1) *and* marked an X next to at least one non-professional source of help (see Appendix III, item 2, sub-items 8 through 13). The independent variables were the same as in research question 2, and entered the analysis as structural sets in the same order as in research question 2.

Research question 4: Which source of help is used to a greater extent by religious and non religious women?

A chi-square analysis was used in order to find out which types of sources of help (see Appendix III, item 2) were used to a greater extent by religious and non religious women. The dependent categorical variable was whether a woman defined herself as being religious or not⁸ (coded 0 = non religious, 1 = religious) (based on Appendix I, item 5. Non religious= secular; religious= traditional, orthodox and ultra orthodox). The independent categorical variable was source of help (coded 0 = only non-professional (sub-items 8 through 13), 1 = only professional (sub-items 1 through 7), 2 = both professional and non- professional (those who marked a sub-item from 1 through 7 as well as a sub-item from 8 through 13), and 3 = none (didn't mark any sub-item) (see Appendix III, item 2).

Research Question 5: What factors predict 6-month follow-up depression scores?

A hierarchal multiple regression analysis was used to address this research question. The dependent variable was a continuous variable for the level of depressive symptomatology as indicated by the total score of the woman on the EPDS at follow up II assessment (see Appendix III, items 17 through 26). The independent variables were continuous or categorical and entered the analysis as structural sets in the following order:

⁸ Given the very small number of cases in each cell in the analysis, Religious Affiliation was dichotomized (into: 0= not religious (secular), 1= religious (traditional, orthodox, ultra-orthodox))

1. In order to control for presence of depressive symptomatology at baseline, scores on the follow up I assessment EPDS (see Appendix II, items 1 through 10) entered the equation first.
2. The second set included religious affiliation (coded 0 = non-religious, and 1 = religious) (based on Appendix I, item 5).
3. The third set included utilization of professional help (coded 0 = yes, 1 = no), and utilization of non-professional help (coded 0 = yes, and 1 = no).

Research question 6: Is there a difference in the level of depressive symptomatology between the 6-week screening and the 6-month screening?

A paired sample t-test was used to address this question. The paired variables were level of depressive symptomatology at the 6-week screening, as indicated by the total score on the EPDS at follow up I assessment (see Appendix II, items 1 through 10); and level of depressive symptomatology at the 6-month screening, as indicated by the total score on the EPDS at follow up II assessment (see Appendix III, items 17 through 26).

Chapter III:

RESULTS

The results of the study will be divided into sections based on preliminary analyses and the research questions of the study in the following way: The handling of missing data will be addressed first, followed by three sets of comparisons between different groups: (1) Comparison of women who completed the 6-week follow-up and those who did not; (2) comparison of women who screened positive for postpartum depression at the 6-week follow-up and those who did not; and (3) comparison of women who completed the 6-month follow-up and those who did not. Following that, help seeking patterns at the 6-month follow-up will be provided, followed by the results of the six research questions of the study.

Handling of Missing Data

One thousand and one hundred (1100) women received envelopes⁹, and 1059 of them (96.3%) signed the informed consent and completed the baseline questionnaire while they were in the hospital. Eight hundred and five (805) of those 1059 (76%) participated at the 6-week follow-up (follow-up I); 94 of the women who participated at the 6-week follow-up (12%) screened positive for postpartum depression (PPD), and 88 of those 94 (94%) women participated at the 6-month follow-up (follow-up II). Out of the 1059 participants 676 (64%) had complete data.

Although one third of the sample has some missing data, the rates of missing data on specific items and scales were generally very low: 1052 participants (99%) answered

⁹ This indicates the number of women who returned envelopes (empty and full ones). No details are available as to how many women said "no" to participating in the study and weren't handed an envelope.

the question regarding their age; 1049 (99%) answered the question regarding number of children; 1029 (97%) answered the question regarding number of previous pregnancies; 1056 (99.7%) answered the question regarding their marital status; 1056 (99.7%) answered the question regarding their religious affiliation; 1047 (99%) answered the question regarding past depression; 974 (92%) answered the question regarding their level of income; 1018 (96%) answered the question regarding social norm.

There was variability in response rates to the ATSPPHS scale items: 751 participants (71%) fully answered the ATSPPHS scale, with number of participants answering specific questions ranging from 968 (91%) to 1054 (99.5%). Most participants (n = 841, 79%) fully answered the questions on sub-scale 1 (factor I) of the ATSPPHS; 911 participants (86%) fully answered the questions on sub-scale 2 (factor II) of the ATSPPHS; 929 participants (88%) fully answered the questions on sub-scale 3 (factor III) of the ATSPPHS; 897 participants (85%) fully answered the questions on sub-scale 4 (factor IV) of the ATSPPHS. Following Schafer and Graham's (2002) recommendations for handling missing data, Ipsative Mean Imputation (IMI) was used for the ATSPPHS scale. Due to the fact that the sub-scales were used in the data analyses, rather than the entire scale, total sub-scale scores were calculated using IMI for participants who answered at least 75% of the questions.

As to missing data for the 2 follow-ups: at the 6-week follow-up (follow-up I) 805 participants (100% of the 6-week follow up participants) fully answered the EPDS scale questions; and at the 6-month follow-up (follow-up II) 87 participants (98.8% of the 6-month follow-up participants) fully answered the survey, including the EPDS scale questions.

Comparison of Women who Participated in the 6-week Follow-up and Those Who Did Not

Eight hundred and five (805) of the 1059 women who completed the baseline questionnaire (76%) participated at the 6-week follow-up. Tables comparing the demographics of women who participated at the 6-week follow-up to those who did not participate at the follow-up are provided below (Tables 1a through 1b(5)). *t* tests and χ^2 analyses were performed in order to detect significant differences on these variables, and most of the analyses were significant indicating that women who participated in the 6-week follow-up were significantly older, had more previous pregnancies, more children, a higher income, more positive attitudes towards seeking help, a more positive social norm, and were more likely to have someone in their family with a history of being treated for depression than women who did not participate in the 6-week follow-up. Marital status¹⁰, having a history of depression, child care availability, and religious affiliation were non-significant.

¹⁰ Given the very small number of women who defined themselves as other than married, marital status was dichotomized in all relevant analyses (into: 0= not married, 1= married)

Table 1. Demographic comparisons between women who participated at the 6-week follow-up and those who did not:

Table 1a. Demographic comparisons, using t-tests, between women who participated at the 6-week follow-up and those who did not.

	Was the second survey filled out?	N	mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
What is your age?	yes	804	29.3622	5.40252	.19053	.001
	no	248	28.0940	5.35598	.34010	
How many children do you have?	yes	803	3.4209	2.32350	.08199	.015
	no	246	3.0122	2.25964	.14407	
Number of previous pregnancies	yes	787	3.2236	2.88821	.10295	.001
	no	242	2.5496	2.71915	.17479	
Income	yes	750	2.4933	.91783	.03351	.001
	no	224	2.2857	.82074	.05484	
Attitudes towards seeking help (Sum of ATSPPHS)	yes	777	59.8545	11.54506	.41418	.000
	no	219	56.6638	11.79236	.79685	
Social norm	yes	781	6.1101	1.35686	.04855	.001
	no	237	5.7321	1.65478	.10749	

Table 1b. Demographic comparisons, using χ^2 analysis, between women who participated at the 6-week follow-up and those who did not.

Table 1b(1). Marital status:

			Was the second survey filled out?		Total
			Yes	No	
Marital status	Not married	Count	9	7	16
		% within marital status (married or not)	56.3%	43.8%	100.0%
	Married	Count	794	246	1040
		% within marital status (married or not)	76.3%	23.7%	100.0%
Total		Count	803	253	1056
		% within marital status (married or not)	76.0%	24.0%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	3.493(b)	1	.062

Table 1b(2). Past depression:

			Was the second survey filled out?		Total
			Yes	No	
Have you ever felt a need to be treated for depression?	Yes	Count	119	27	146
		% within Have you ever felt a need to be treated for depression?	81.5%	18.5%	100.0%
	No	Count	675	26	901
		% within Have you ever felt a need to be treated for depression?	74.9%	25.1%	100.0%
Total		Count	794	253	1047
		% within Have you ever felt a need to be treated for depression?	75.8%	24.2%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	2.978(b)	1	.084

Table 1b(3). Family history of depression:

			Was the second survey filled out?		Total
			Yes	No	
Has anyone in your family been treated for depression?	Yes	Count	156	24	180
		% within Has anyone in your family been treated for depression?	86.7%	13.3%	100.0%
	No	Count	641	225	866
		% within Has anyone in your family been treated for depression?	74.0%	26.0%	100.0%
Total		Count	797	249	1046
		% within Has anyone in your family been treated for depression?	76.2%	23.8%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	13.144 (b)	1	.000

Table 1b(4). Child care availability:

			Was the second survey filled out?		Total
			Yes	No	
Is child care available for your baby and your other children, if you would need such care?	Yes	Count	749	232	981
		% within Is child care available for your baby and your other children, if you would need such care?	76.4%	23.6%	100.0%
	No	Count	47	14	61
		% within Is child care available for your baby and your other children, if you would need such care?	77.0%	23.0%	100.0%
Total		Count	796	246	1042
		% within Is child care available for your baby and your other children, if you would need such care?	76.4%	23.6%	23.6%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	.016(b)	1	.901

Table 1b(5). Religious affiliation:

			Was the second survey filled out?		Total
			Yes	No	
religious affiliation	secular	Count	57	25	82
		% within religious affiliation	69.5%	30.5%	100.0%
	traditional	Count	95	26	121
		% within religious affiliation	78.5%	21.5%	100.0%
	orthodox	Count	278	72	350
		% within religious affiliation	79.4%	20.6%	100.0%
	ultra orthodox	Count	374	129	503
		% within religious affiliation	74.4%	25.6%	100.0%
Total		Count	804	252	1056
		% within religious affiliation	76.1%	23.9%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	5.324(b)	3	.150

Comparison of Women who Screened Positive for PPD and Those Who Did Not

Ninety four (94) of the women who participated at the 6-week follow up (12%) screened positive for postpartum depression. A table comparing the demographics of women who screened positive for postpartum depression at the 6-week follow-up to those who screened negative is provided below (Tables 2a through 2b(5)). *t* tests and χ^2 analyses were performed in order to detect significant differences on these variables. Results indicate that women who were married were significantly less likely to screen positive than those who were not married¹¹. Likewise, women with a history of depression were four times more likely to screen positive than women without a history of depression. In addition, women who did not have child care when needed were almost three times more likely to screen positive than women who have child care available.

On the other hand, women who screened positive for postpartum depression did not significantly differ from those who screened negative in age, number of children, attitudes towards seeking help, social norm, having someone in their family with a history of depression, religious affiliation, number of previous pregnancies and their income.

¹¹ Given the very small number of women who were not married in this sample, this finding should be interpreted with caution.

Table 2. Demographic comparisons between women who screened positive for PPD at the 6-week follow up and those who screened negative:

Table 2a. Demographic comparisons, using t-tests, between women who screened positive for PPD at the 6-week follow up and those who screened negative.

	Did a woman have depressive symptoms (EPDS=>9) in follow up 1?	N	Mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
What is your age?	no	711	29.3280	5.34964	.20063	.620
	yes	93	29.6238	5.81497	.60298	
How many children do you have?	no	710	3.4634	2.32802	.08737	.153
	yes	93	3.0968	2.27493	.23590	
Number of previous pregnancies	no	696	3.2945	2.90190	.11000	.057
	yes	91	2.6813	2.73609	.28682	
Income	no	661	2.5159	.91501	.03559	.067
	yes	89	2.3258	.92657	.09822	
Attitudes towards seeking help (Sum of ATSPPHS)	no	687	59.7073	11.71387	.44691	.327
	yes	90	60.9780	10.15282	1.07020	
Social norm	no	688	6.1388	1.35481	.05165	.108
	yes	93	5.8978	1.36046	.14107	

Table 2b. Demographic comparisons, using χ^2 analysis, between women who screened positive for PPD at the 6-week follow up and those who screened negative.

Table 2b(1). Marital status:

		Did a woman have depressive symptoms (EPDS=>9) in follow up 1?		Total	
		No	Yes		
Marital status	Not married	Count	5	4	9
		% within marital status (married or not)	55.6%	44.4%	100.0%
	Married	Count	704	90	794
		% within marital status (married or not)	88.7%	11.3%	100.0%
Total		Count	709	94	803
		% within marital status (married or not)	88.3%	11.7%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	9.439(b)	1	.002

Table 2b(2). Past depression:

			Did a woman have depressive symptoms (EPDS=>9) in follow up 1?		Total
			No	Yes	
Have you ever felt a need to be treated for depression?	Yes	Count	81	38	119
		% within Have you ever felt a need to be treated for depression?	68.1%	31.9%	100.0%
	No	Count	623	52	675
		% within Have you ever felt a need to be treated for depression?	92.3%	7.7%	100.0%
Total		Count	704	90	794
		% within Have you ever felt a need to be treated for depression?	88.7%	11.3%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	59.092(b)	1	.000

Table 2b(3). Family history of depression:

			Did a woman have depressive symptoms (EPDS=>9) in follow up 1?		Total
			No	Yes	
Has anyone in your family been treated for depression?	Yes	Count	133	23	156
		% within Has anyone in your family been treated for depression?	85.3%	14.7%	100.0%
	No	Count	570	71	641
		% within Has anyone in your family been treated for depression?	88.9%	11.1%	100.0%
Total		Count	703	94	797
		% within Has anyone in your family been treated for depression?	88.2%	11.8%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	1.622(b)	1	.203

Table 2b(4). Child care availability:

			Did a woman have depressive symptoms (EPDS=>9) in follow up 1?		Total
			No	Yes	
Is child care available for your baby and your other children, if you would need such care?	Yes	Count	668	81	749
		% within Is child care available for your baby and your other children, if you would need such care?	89.2%	10.8%	100.0%
	No	Count	34	13	47
		% within Is child care available for your baby and your other children, if you would need such care?	72.3%	27.7%	100.0%
Total		Count	702	94	796
		% within Is child care available for your baby and your other children, if you would need such care?	88.2%	11.8%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	12.050(b)	1	.001

Table 2b(5). Religious affiliation:

			Did a woman have depressive symptoms (EPDS=>9) in follow up 1?		Total
			No	Yes	
religious affiliation	secular	Count	52	5	57
		% within religious affiliation	91.2%	8.8%	100.0%
	traditional	Count	82	13	95
		% within religious affiliation	86.3%	13.7%	100.0%
	orthodox	Count	242	36	278
		% within religious affiliation	87.1%	12.9%	100.0%
	ultra orthodox	Count	334	40	374
		% within religious affiliation	89.3%	10.7%	100.0%
Total		Count	710	94	804
		% within religious affiliation	88.3%	11.7%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	1.622(b)	3	.654

Comparison of Women who Participated in the 6-month Follow-up and Those Who Did Not

Eighty eight (88) of the 94 (94%) women who screened positive for postpartum depression participated at the 6-month follow up. Looking at differences between the women who participated at the 6-month follow up and those who were eligible to participate at this follow up but did not yielded one significant outcome: All 6 women who were eligible to participate but did not do so, did not have depression in the past (see Table 3).

Table 3. Comparison of women who were eligible to participate at the 6-month follow-up and participated to those who did not.

			Eligible for survey 3 (EPDS=>9 in follow up 1)		Total
			Eligible and did not respond	Eligible and responded	
Have you ever felt a need to be treated for depression?	Yes	Count	0	38	38
		% within Have you ever felt a need to be treated for depression?	.0%	100.0%	100.0%
	No	Count	6	46	52
		% within Have you ever felt a need to be treated for depression?	11.5%	88.5%	100.0%
Total		Count	6	84	90
		% within Have you ever felt a need to be treated for depression?	6.7%	93.3%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	4.698(b)	1	.030

Help Seeking at 6 month Follow-up among those who Screened Positive for PPD

Of the 88 women who screened positive for postpartum depression and participated in the 6-month follow-up, Almost one-third of the women ($N= 27, 31\%$) continued to screen positive for postpartum depression at the 6 month follow up. Two-thirds ($n = 61, 69\%$) of the women sought help (professional or non-professional) for their depressive symptoms. Out of those who sought help for their depressive symptoms 55 (90%) utilized non professional help and 21 (34%) utilized professional help; however only 6 of these 21 (10% of those who utilized help) utilized professional help exclusively, the rest utilized both professional as well as non professional help. In this study the definition of utilizing professional help included turning to a psychiatrist, psychologist, social worker, family therapist, life coach, primary care provider, and/ or a postpartum depression support hotline. The definition of utilizing non- professional help included turning to family members (such as husband, mother, father, sister, and/ or aunt), friends, rabbi, rabbi's wife, and/ or former teacher. A table describing the types of help that were utilized is provided below (Table 4):

Table 4. Types of help that participants utilized.

Types of help utilized	Professional help			Non-professional help	
Total amount	N = 21			N = 55	
Percentage	34.4%			90.1%	
Broken into sub-categories	<u>MH professional</u> N = 15 71.4%	<u>Hotline</u> N = 4 19.1%	<u>Primary care provider</u> N = 2 9.5%	<u>Family</u> N = 29 52.7%	<u>Friends and others</u> N = 26 47.3%

Research Questions

Research question 1: What factors predict 6-week follow-up depression scores?

The logistic regression analyses showed that the overall model was significant (N= 711, $\chi^2= 62.842$, $p< .0005$) and correctly classified 88.2% of the cases. Out of the cases that were included in the analysis 83 (11.6%) screened positive for postpartum depression and 628 (88.4%) screened negative for postpartum depression. The specificity of the model was 99.2% and the sensitivity was 4.8%. The table of results is provided below (Table 5). Age was significantly associated with having depressive symptoms at the 6 week postpartum follow up, indicating that the older a woman is the more likely she is to have depressive symptoms at 6 weeks postpartum; each additional year of age is associated with a 10% increase in the odds of having depressive symptoms at 6 weeks postpartum. Number of previous pregnancies was also significantly associated with having depressive symptoms at the 6 week postpartum follow up; for every additional previous pregnancy there is a 25% decrease in the odds of having depressive symptoms at 6 weeks postpartum. Level of income was also significantly associated with having depressive symptoms at the 6 week postpartum follow up, indicating that each reduction in an income level¹² is associated with a 30% increase in the odds of having depressive symptoms at 6 weeks postpartum. Finally, feeling the need to be treated for depression in the past was significantly associated with having depressive symptoms at the 6 week postpartum follow up; the odds of having depressive symptoms at six weeks postpartum

¹² Levels of income are divided into low Israeli income, average Israeli income, high Israeli income, and very high Israeli income.

were over 6 times higher for those who felt depressed in the past as for those who didn't feel depressed in the past.

The number of children a woman has, her marital status, her religious affiliation, history of depression treatment in her family, and child care availability were found to be non-significant. In summary, the older a woman is, the fewer previous pregnancies she had, the lower her income is, and the fact she had depression in the past, the more likely she is to have depressive symptoms at 6 weeks postpartum.

Table 5. Logistic regression statistics for predicting PPD symptomatology at 6 weeks postpartum.

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
								Lower	Upper
Step 1(a)	Age	.095	.037	6.497	1	.011	1.099	1.022	1.183
	No. of children	.152	.152	1.002	1	.317	1.165	.864	1.570
	Number of previous pregnancies	-.304	.124	6.045	1	.014	.737	.579	.940
	Marital status	.892	1.220	.535	1	.465	2.441	.223	26.692
	Religious affiliation	.280	.182	2.359	1	.125	1.323	.926	1.891
	Past depression	1.833	.280	42.782	1	.000	6.252	3.610	10.829
	Family history of depression	-.064	.304	.045	1	.832	.938	.517	1.702
	Income	-.384	.166	5.370	1	.020	.681	.492	.942
	Child care	-.590	.432	1.864	1	.172	.554	.237	1.293
	Constant	-5.151	1.839	7.849	1	.005	.006		

Research question 2: What factors predict utilizing professional help for postpartum depression?

The logistic regression analyses showed that the overall model was significant ($N= 78$, $\chi^2= 29.876$, $p < .005$) and correctly classified 84.6% of the cases. Out of the 78 women included in the analysis 19 (24.4%) utilized professional help and 59 (75.6%) did not utilize professional help. The specificity of the model was 93.2% and the sensitivity 57.9%. The table of results is provided below (Table 6). Level of confidence in mental health professionals was significantly associated with utilization of professional help. This indicates that the more confidence a woman has in mental health professionals the more likely she is to utilize professional help for her depressive symptoms. To be more precise, each additional point on the Confidence in Mental Health Professionals sub-scale is associated with a 30% increase in the odds of utilizing professional help.

Having higher levels of depressive symptoms at the 6-week postpartum screening was also found to be significantly associated with utilization of professional help, pointing to the fact that the higher the depressive symptomatology is the more likely a woman is to turn to professional help. Moreover, an increase of one point on the EPDS scale is associated with a 35% increase in the odds of utilizing professional help.

Recognition of personal need for professional psychological help had a tendency toward being significant ($p= .087$), and might have been non significant due to low power because of the small sample size. It is interesting to note that the EPDS scores may have two underlying meanings: one is the score itself, implying the level of depressive symptomatology. Another meaning may be the awareness of having or not having depressive symptoms and recognition of need for help, due to the fact that a woman was

told her score and was referred for help if she screened positive for depressive symptoms. Therefore a correlation and a *t*-test were carried out examining the association and correlation between positive or negative EPDS screenings and recognition of personal need for professional psychological help (results and classification statistics are provided below in tables 7 and 8). The results revealed that these two variables are significantly correlated, and furthermore, women who screen positive for postpartum depression symptoms have a significantly higher recognition of need for professional psychological help than women who screen negative for postpartum depression symptoms. This seems to imply that recognition of personal need for professional psychological help is associated with utilization of professional help; the higher the recognition of need for help the more likely a woman is to utilize professional help.

A woman's age, the number of children she has, her religious affiliation, her level of stigma tolerance associated with psychological help, her level of interpersonal openness, her family's income, whether she has child care available, and her seeking help social norm were found to be non significant.

In summary, higher level of confidence in mental health professionals and higher level of depressive symptoms at 6 week postpartum were significantly associated with utilization of professional help.

Table 6. Logistic regression statistics for predicting professional help utilization for PPD.

	B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)	
							Lower	Upper
Step 1(a)								
Age	-.102	.104	.955	1	.328	.903	.736	1.108
No. of children	.174	.237	.539	1	.463	1.190	.748	1.892
Religious affiliation	-.192	.452	.180	1	.671	.825	.340	2.001
Interpersonal openness	-.092	.137	.451	1	.502	.912	.698	1.193
Stigma tolerance	-.094	.115	.673	1	.412	.910	.726	1.140
Confidence in MH prof.	.287	.146	3.887	1	.049	1.333	1.002	1.773
Income	-.021	.437	.002	1	.963	.980	.416	2.308
Child care	.283	1.190	.057	1	.812	1.327	.129	13.670
Social norm	-.160	.257	.389	1	.533	.852	.515	1.410
Recognition of need	.201	.117	2.926	1	.087	1.222	.971	1.538
Total EPDS at 6-weeks	.304	.129	5.519	1	.019	1.356	1.052	1.747
Constant	-8.159	4.224	3.732	1	.053	.000		

Table 7. *t*-test statistics for describing association between having depressive symptoms at the 6-week follow-up and recognition of personal need for professional psychological help.

	Did a woman have depressive symptoms (EPDS \geq 9) in follow up 1?	N	Mean	Std. Deviation	Std. Error Mean	Sig. (2-tailed)
Recognition of personal need for professional psychological help	no	680	15.1965	4.44736	.17055	.004
	yes	89	16.5313	3.91798	.41530	

Table 8. Correlation statistics for describing the correlation between having depressive symptoms at the 6-week follow-up and recognition of personal need for professional psychological help.

		Total score on the EPDS on the second survey	Recognition of personal need for professional psychological help
Total score on the EPDS on the second survey	Pearson Correlation	1	.149(**)
	Sig. (2-tailed)	.	.000
	N	805	769
Recognition of personal need for professional psychological help	Pearson Correlation	.149(**)	1
	Sig. (2-tailed)	.000	.
	N	769	984

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

Research question 3: What factors predict utilizing non-professional help for postpartum depression?

The logistic regression analyses showed that the overall model was non significant ($N= 78$, $\chi^2= 6.768$, $p = .818$). The table of results is provided below (Table 9). A woman's age, the number of children she has, her religious affiliation, her level of stigma tolerance associated with psychological help, her level of interpersonal openness, her level of confidence in mental health professionals, her family's income, whether she has child care available, her seeking help social norm, her recognition of personal need for professional psychological help, and screening positive for depressive symptoms at 6-weeks postpartum were found to be non significant, and therefore were not associated with utilizing non-professional help.

Table 9. Logistic regression statistics for predicting non-professional help utilization for PPD.

		B	S.E.	Wald	df	Sig.	Exp(B)	95.0% C.I. for EXP(B)		
									Lower	Upper
Step 1(a)	Age	-.043	.066	.429	1	.513	.957	.841	1.091	
	No. of children	.021	.156	.017	1	.895	1.021	.751	1.387	
	Religious affiliation	-.196	.315	.386	1	.534	.822	.443	1.525	
	Interpersonal openness	.094	.096	.963	1	.326	1.099	.910	1.326	
	Stigma tolerance	-.071	.085	.695	1	.405	.932	.789	1.100	
	Confidence in MH prof.	.076	.082	.844	1	.358	1.078	.918	1.267	
	Income	-.420	.332	1.594	1	.207	.657	.343	1.261	
	Child care	.389	.755	.266	1	.606	1.476	.336	6.488	
	Social norm	.217	.171	1.623	1	.203	1.243	.889	1.737	
	Recognition of need	-.033	.077	.185	1	.667	.967	.831	1.126	
	Total EPDS at 6-weeks	-.023	.091	.065	1	.799	.977	.818	1.168	
	Constant	.415	2.619	.025	1	.874	1.515			

Research question 4: Which source of help was used to a greater extent by religious and non religious women?

The chi square analysis was non significant (Pearson $\chi^2 = 2.539$, $p = .468$), indicating that there is no significant relationship between a woman being religious or not and the source of help she turned to. The crosstabs table is provided below (Table 10).

Table 10. χ^2 analysis for assessing association between religious affiliation and source of help utilized.

			source of help utilized				Total
			only non professional	only professional	both professional and non professional	none (didn't utilize any source of help)	
Does a woman define herself as religious or not	No	Count	2	1	2	1	6
		% within does a woman define herself as religious or not	33.3%	16.7%	33.3%	16.7%	100.0%
	Yes	Count	38	5	13	26	82
		% within does a woman define herself as religious or not	46.3%	6.1%	15.9%	31.7%	100.0%
Total		Count	40	6	15	27	88
		% within does a woman define herself as religious or not	45.5%	6.8%	17.0%	30.7%	100.0%

	Value	df	Assymp. Sig. (2-sided)
Pearson Chi-Square	2.539(b)	3	.468

Research question 5: What factors predict 6-month follow-up depression scores?

The assumptions for the regression analysis (Cohen et al., 2003) were adequately met. The overall model was significant ($N = 87$, $F = 4.758$, $p < .005$) and accounted for 18.8% of the variance in level of depressive symptomatology at 6 months postpartum. (Adjusted R square = .149). The regression table is provided below (Table 11). Level of depressive symptomatology at 6 weeks postpartum was significantly associated with level of depressive symptomatology at 6 months postpartum. This indicates that for the women who scored above 9 on the EPDS at the 6-week follow-up, the higher the level of depressive symptomatology a woman has at 6 weeks postpartum, the higher the level of depressive symptomatology she will have at 6 months postpartum. Utilization of non-professional help was also found to be significantly associated with level of depressive symptomatology at 6 months postpartum. This indicates that women who utilize non professional help are more likely to have lower depressive symptomatology at 6 months postpartum than women who don't utilize non professional help. Religious affiliation and Utilization of professional help were non significant.

Looking at the unstandardized coefficients reveals that for every point increase in the EPDS score at 6 weeks postpartum there is an increase of .5 points in the EPDS score at 6 months postpartum. Similarly, utilizing non-professional help is associated with around a 3 point reduction in the EPDS score at 6 months postpartum, pointing out the large effect utilization of non professional help has on level of depressive symptomatology at 6 months postpartum. Confidence intervals are reported in table 11.

In summary, higher level of depressive symptomatology at 6 weeks postpartum, and less utilization of non professional help were associated with higher levels of depressive symptomatology at 6 months postpartum.

Table 11. Multiple regression statistics for predicting follow up depression scores.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.476	1.964		.752	.454	-2.428	5.381
	Total score on the EPDS on the second survey	.468	.165	.294	2.840	.006	.140	.796
2	(Constant)	-1.781	3.069		-.580	.563	-7.884	4.322
	Total score on the EPDS on the second survey	.521	.168	.328	3.095	.003	.186	.856
	Religious affiliation	.825	.600	.146	1.376	.172	-.367	2.017
3	(Constant)	.081	3.171		.025	.980	-6.227	6.388
	Total score on the EPDS on the second survey	.511	.184	.321	2.769	.007	.144	.878
	Religious affiliation	.851	.580	.150	1.467	.146	-.303	2.005
	Utilization of professional help	-.095	1.312	-.008	-.073	.942	-2.705	2.514
	Utilization of non professional help	-2.898	1.024	-.285	-2.829	.006	-4.935	-.860

Research question 6: Is there a difference in the level of depressive symptomatology between the 6-week screening and the 6-month screening?

The paired sample t-test showed that there was a significant difference in the level of depressive symptomatology between the 6 week screening and the 6 month screening (N= 87, $t = 8.611$, $p < .005$); the level of depressive symptomatology was significantly lower at 6 months postpartum (M= 6.86, SD= 4.96) than at 6 weeks postpartum (M= 11.50, SD= 3.12).

Summary of results

To summarize all significant results, the older a woman is, the fewer previous pregnancies she had, the lower her income is, and the fact she was treated for depression in the past, the more likely she is to have depressive symptoms at 6 weeks postpartum. As to utilization of help, the more confidence a woman has in mental health professionals and being screened positive for depressive symptoms the more likely she is to utilize professional help. Looking at depression scores over time, having a higher level of depressive symptomatology at 6 weeks postpartum, and less utilization of non professional help is associated with higher levels of depressive symptomatology at 6 months postpartum. Finally, level of depressive symptomatology was found to significantly decrease from 6 weeks postpartum to 6 months postpartum.

Chapter IV:

DISCUSSION

This study examined predictors of help utilization for postpartum depression, and contributes to the literature in several ways. The discussion of the study's findings will be divided into the main issues that were examined, followed by a discussion of strengths and limitations of the study, and finally by recommended implications for future research, theory building and social work practice.

Study Findings

Incidence of postpartum depressive symptoms

Twelve percent (12%) of women who participated in the study screened positive (i.e., scored at 9 or above on the EPDS) for postpartum depression. This incidence is in the range (10%-20%) of the postpartum depression prevalence that appears in the literature (Andrews-Fike, 1999; Epperson, 1999; Heh, Coombes, & Bartlett, 2004; Miller, 2002); however it is in the lower part of the range, which may be due to the fact that most of the participants were orthodox and ultra-orthodox, and it may be that their cultural characteristics served as a protecting factor against their postpartum depression. The protective effect religion and culture have on postpartum depression was found in several studies in which researchers concluded that cultural traditions, beliefs, and rituals have an alleviating effect on postpartum depression (Harkness, 1987; Heh, Coombes, & Bartlett, 2004; Lee, 2000; Stewart & Jambunathan, 1996). Moreover, in the only Israeli study that compared the incidence of postpartum depression between women with different religious affiliations researchers concluded that greater religiosity, with its associated

communal and social and structuring, is associated with a decreased risk of postpartum depressive symptoms (Dankner et al., 2000).

Rates of Help Utilization

Only 69% of participants who screened positive for PPD sought help for their depression, and only 34% of them utilized professional help. Although this relatively low percentage is consistent with the literature, which indicates that between 10% and 49% of women turned to professional help for their postpartum depression (Acri Cavaleri, 2005; Andres-Horowitz & Cousins, 2006; McIntosh, 1993; McGarry et al., 2009; Smith et al., 2009; Song et al., 2004; Weissman et al., 2004), compared to these studies the current study's finding represents a high-middle range (i.e., 34% compared to the range of 10% to 49% found in prior studies) of professional help seekers. This might have happened because, as opposed to other studies where women were not given referrals or were referred to a specific treatment or clinic, in this study participants were offered a variety of professional sources, in terms of cost, type of counseling, and being public or private, and women had the opportunity to choose the type of care that suited them best.

The vast majority of women in this study who were referred for help did not want to be referred to a public facility, because they were concerned that their files would be used against them in the future in some way. In addition, some women claimed that they won't go out of their house to get help, and therefore a telephone support hotline was an option that appealed to them. Another possibility for the relatively moderate to high percentage of professional help seekers could have been the ultra orthodox community's tendency to adhere to their rabbis' advice and guidance (Greenberg & Witztum, 2001). This study was approved by a well known rabbi, and maybe the fact that women knew

that the rabbi approved the study and the researcher resulted in higher cooperation rates with the treatment referrals.

Out of the women who sought help, 90% utilized non-professional help, mainly from family and friends. Only one other study looking at the percentage of women who turned to non-professional help for postpartum depression was found; in McIntosh's (1993) study around 42% of participating women turned to family and friends. Other researchers stressed women's self coping and turning to family and friends not as a first resort but rather only when their symptoms worsened (Abrams et al., 2009; Edge & McKian, 2010). The percentage of women who turned to non-professional help in the current study is high and may have been caused by the fact that, as opposed to the other studies mentioned, the women in this study became aware of their depressive symptoms, due to the screening, and this may have been the reason why so many of them turned to someone for help. What supports this claim is the theme that came up in the other studies (Abrams et al., 2009; Edge & McKian, 2010) that lack of awareness of one's own depression leads to not turning to help.

The percentage of women who did not seek help at all (31%) is somewhat alarming, stressing the fact that a lot of women suffered in silence and did not share their difficulties with anyone, not even with their loved ones. Taking into account that participating women underwent screening and not a clinical evaluation of depression, and that it may be that a cut-off score of 9 may be detecting women who are not actually depressed, does not lessen the fact that all of them were going through a difficult stressful phase and did not talk to anyone about it. McIntosh (1993) found that an even higher percentage (53%) of women did not utilize any source of help, not even their loved ones.

Other researchers stressed women's self coping as a preferred "treatment" instead of turning for help, even to family and friends (Abrams et al., 2009; Edge & McKian, 2010), and some women stated that because they felt that even if they admitted their feelings to others they won't get the support they need, they preferred to keep quiet (Russell, 2006).

Comparison of Women who Participated in the 6-week Follow-up and Those Who Did Not

Women who participated in the 6-week follow up (follow up I) were older, had more previous pregnancies, more children, a higher income, more positive attitudes toward seeking help, a more positive social norm, and a family member who had been treated for depression, as opposed to women who did not participate in the 6-week follow up. It seems logical that those who had someone in their family who was treated for depression and those with more positive attitudes toward seeking help, as well as their loved-ones' more positive attitudes, will be more likely to be willing to participate in a study focused on seeking help. This seems especially likely in light of studies that found that people with a family history of depression and/or depression treatment are more likely to seek treatment than those without such a history (Kendler, 1995; Nierenberg, Madhukar, Maurizio et al., 2007; Sullivan, Well, Joyce et al., 1996), and in light of studies that found that family and friends' attitudes toward seeking help have a direct effect on a woman's help seeking (Bliszta et al., 2010; Goodman, 2009; Sword et al., 2008). Hence, participation in a study focused on seeking help may be a first step toward utilization of help.

Nevertheless, one should bear in mind that, except for family member being treated for depression, the actual differences between those who participated at the 6-

week follow-up and those who did not were quite small to have a practical meaning. This is true for the other factors (age, number of children and previous pregnancies, and level of income) as well. Doing an analysis with over 1000 cases has a very large amount of power, which may cause trivial differences to be detected as significant; hence these findings should be interpreted with caution.

Comparison of Women who Screened Positive for PPD and Those Who Did Not

Women who were not married, who had depression in the past, and who said child care would not be available for them when needed were more likely to screen positive for PPD symptoms than women who were married, did not have depression in the past, and had child care available to them. These findings are comparable to Beck's (2001) meta-analysis of postpartum depression predictors in which she concludes that being a single mother, having a history of depression, and experiencing childcare stress, among other factors, are risk factors for postpartum depression. It should, however, be noted that given the very small number of women who were not married in this sample, the marital status factor should be interpreted with caution.

Interestingly there were no significant differences in religious affiliation of those who screened positive and those who did not. This factor was significant in the only other Israeli study that compared level of depressive symptoms in different religious-affiliated groups, concluding that religiosity is associated with decreased levels of postpartum depressive symptoms (Dankner et al., 2000). These contrasting results may have been caused by a number of reasons: First, Dankner et al. had a higher percent of secular (13%) and traditional (20%) women than the current study; second, Dankner et al.'s study took place at a period of time (1989-1990) in which the ultra-orthodox community

was extremely reluctant to deal openly with mental health issues. Over the past two decades the ultra-orthodox community became more open to dealing with such issues, especially when the issues are dealt with following a rabbi's approval, such as occurred in the current study. Third, Dankner et al. claimed that they felt the ultra-orthodox women were not answering the EPDS in an honest way, making their symptoms appear less severe, and in addition, many ultra-orthodox participants did not answer the 10th question (suicidal thoughts), and therefore this question was taken out of the analysis. In the current study there was a sense that participants answered questions honestly, and all participants answered the 10th question. It may be that these differences between the studies account for the discrepancies in the findings. In any case, due to these contrasting results and the limitations of both studies, the difference in levels of postpartum depression symptomatology between the different religious-affiliation groups should be examined in future research.

Comparison of Women who Participated in the 6-month Follow-up and Those Who Did Not

Only 6 women who were eligible to participate at the 6-month follow up did not choose to do so. The other 88 eligible participated. The only significant difference between those who participated and those who did not was that all 6 women who did not participate did not have depression in the past. In other words, all women who were eligible to participate in this phase and who had depression in the past, participated in this phase. It may be that women who had depression in the past felt that it was important to participate in such a study, and that the study was helpful to them in some way.

Factors Predicting 6-week Depression symptomatology

Women who were older, had fewer past pregnancies, a lower income, and past depression were more likely to have depressive symptoms at the 6-week follow up. The two latter factors were also identified as risk factors of postpartum depression in Beck's (2001) meta-analysis of postpartum depression predictors. Interestingly only history of depression was a significant factor in both the logistic regression analysis predicting 6-week depression symptomatology as well as in the bivariate analysis comparing between those who screened positive and those who screened negative for postpartum depression symptoms at the 6-week follow up. It could, therefore, cautiously be suggested that past depression seems like the variable that has the strongest effect in predicting postpartum depression. Furthermore, it may be that because multiple predictors were tested simultaneously in the logistic regression the extent to which they were related to each other may have influenced their relationship with the dependent variable. In other words, it may have been that some of the predictors had a big effect on the dependent variable, which reduced the effect of the other predictors.

As to the effects that were significant only in the regression analysis, it may be that the significant predictors became important in the context of other predictors. For instance, in the ultra-orthodox community parents of the couple support them financially during the first years of their marriage. It could be that older women have less support from their parents and therefore less income. A lower income is known to be a risk factor for postpartum depression, and therefore the joint effect of these two factors could have caused women to become depressed.

Another joint effect could be that of age and number of previous pregnancies. The ultra-orthodox community places much pressure on having many children (Auslander, 2003), and having had a small number of pregnancies usually means having fewer children. It may be that older women with fewer children were more likely to be depressed because they had fewer children than other women their age. Interestingly, in the bivariate analysis number of previous pregnancies was quite close to being significant ($p = .057$). These interaction and mediation effects, which were not tested in this study due to an insufficient sample size, should be examined in further analyses.

Predictors of Help Utilization for Postpartum Depression

The Behavioral Model of Health Service Use (Andersen & Newman, 1973) as a whole did not predict utilization of professional or non-professional help; however parts of the model were predictive and had strong effects on utilization of such help. Hence, these findings add important knowledge in an area that is under-studied.

Factors Predicting Utilization of Professional Help for Postpartum Depression

Confidence in mental health professionals and level of depressive symptoms at the 6-week follow up screening predicted women's utilization of professional help for postpartum depression. The large effect these factors had on the odds of such utilization points to the significant part they play in utilization of professional help. More precisely, the more a woman is confident in mental health professionals the more likely she is to utilize professional help. The large effect this predictor had on utilization of professional help may be explained in light of the patterns of seeking professional help in the ultra-orthodox community, where prior to turning to a professional for mental health treatment people consult with key figures in their community who recommend a specific mental

health provider they could be confident will help them with their needs. Similar findings in other studies suggest that lack of confidence in professionals, as expressed by past negative treatment experiences, perceived lack of quality of care providers, perception of treatment offered by mental health professionals as being ineffective or inappropriate, and perception that care givers are unapproachable and unfriendly (Abrams et al., 2009; Bliszta, 2010; Chisholm et al., 2004; Edge & MacKian, 2010; Russell, 2006), serves as a barrier to utilizing professional help.

Another significant finding was that the higher a woman's depressive symptoms are the more likely she is to utilize professional help. The phenomenon of waiting for severe symptoms before turning to help is consistent with findings of other studies where women with postpartum depression claimed that they utilized professional help as a last resort when their normal functioning became too impaired (McIntosh, 1993) and they did not feel "themselves" (Sword et al., 2008). Similar findings appear in a study on utilizing treatment for depression where 16% of patients with depressive symptoms preferred "watchful waiting" over treatment. When comparing those with depressive symptoms and those with more severe depressive disorders on the effect watchful waiting has on depression care, researchers concluded that illness severity may outweigh watchful waiting (Dwight Johnson, Meredith, Hickey, & Wells, 2006), therefore strengthening the notion that symptom severity prompts women to seek treatment.

As to recognition of need for help, the significant bivariate analysis between EPDS scores and recognition of need for professional psychological help suggests that a woman's knowledge of her EPDS score may raise her awareness and recognition of need for help. The fact that the effect of recognition of need for professional psychological

help on utilizing professional help was marginally significant, combined with the significant bivariate analysis mentioned above, suggests that if the sample were larger this may have been a significant effect, and that it should be explored in further research. Support for this notion can be found in Ugarriza's (2004) study of a postpartum depression support group in which one of the reasons for not participating in the support group was women's reluctance to admit that they had depression and that they needed help.

A number of factors were found to be non-significant predictors of professional help utilization for postpartum depression: A woman's age, the number of children she has, her religious affiliation, her level of stigma tolerance associated with psychological help, her level of interpersonal openness, her family's income, whether she has child care available, and her seeking help social norm. Due to the fairly small sample in this analysis these findings should be further examined, especially in light of other studies that provided supporting or contradicting findings for some of these results. For instance, McGarry et al. (2009) found that older women were more likely to seek medical help for postpartum depression, and Song et al. (2004) concluded that older women were more likely to utilize mental health care for perinatal depression. On the other hand, Acri Cavaleri (2005) found that being older was predictive of environmental/logistic barriers to mental health care for perinatal depression. These contradicting results may derive from various reasons: First, differences may be due to the different populations under investigation (pregnant and postpartum women as opposed to only postpartum women), stressing that women at different stages in life may have different seeking help patterns; second, differences in results may be due to type of help sought (medical versus mental

health); and finally, differences in findings could be due to the dependent variable under examination (utilization of help versus barriers to such utilization).

The impact of number of children on professional help utilization was examined in only one other study where the researchers found a significant effect of this factor, concluding that the more children a woman has the more likely she is to seek mental health care for her perinatal depression (Song et al., 2004). It should be noted the number of children per participant in the current study ($N = 3.3$; range 1 to 13) was relatively low compared to the average number of children an ultra-orthodox woman has (7.7 children on average, Choshen et al., 2005). This could have been a result of the relatively young age of participants (61.6% of the sample were 30 years old or younger; mean age = 29.06). It may be that if the number of children was closer to the known average findings would have been significant. In any case more evidence from further studies is needed before conclusions about the effect of number of children on utilizing professional help are made.

As to income, McGarry et al. (2009) reached a similar conclusion to the one in this study stating that income is not a significant predictor of seeking professional help for postpartum depression. In addition, due to the fact that in the current study women were referred, among various referrals, also to low-cost or free sources of help, it seems likely that level of income should not have been a significant predictor of utilization of professional help.

The impact of child care availability on utilizing professional help was not examined statistically in other studies, but rather was raised by participants as a barrier to seeking help (Abrams et al., 2009; Chisholm et al., 2004; Goodman, 2009). In Chisholm

et al.'s study depressed women, as well as non-depressed women, expressed that inability to find a child caretaker served as a barrier to utilizing primary care as well as mental health care. In Abrams' study it was the service providers, and not the women themselves, who claimed that lack of child care services was a barrier to utilizing professional mental health care; and Goodman looked at expected barriers to obtaining professional help for perinatal depression. It might be that only the specific women or service providers who participated in these studies felt that child care unavailability can be a barrier to professional help utilization. It may also be that child care availability was not significant in the current study due to the communal support ultra-orthodox women have, which may provide help with children when needed. However, in light of these contradictory results the effect of childcare availability on utilization of professional help should be examined in a larger sample, and should also be further examined in the ultra-orthodox community in order to assess whether this is a significant factor in this specific community.

The effect of religious affiliation on professional help utilization for postpartum depression was not examined in any other study; however, there were two studies in which the researchers concluded that cultural barriers serve as a barrier to utilization of professional help (Abrams et al., 2009; Lau & Wong, 2008). The religious affiliation finding in this current study may have been non-significant due to the fact that most of the sample was orthodox or ultra-orthodox and there may not have been enough power to compare between the various religious groups. In light of these other studies' findings that cultural factors may serve as a barrier to utilization of professional help and in light of the fact that Israeli mental health care providers claim that the ultra-orthodox

community clearly under-utilizes mental health services (Greenberg & Witztum, 2001), the effect of religious affiliation on professional help utilization should be further examined in a more heterogeneous population.

The effect of stigma on utilization of professional help for postpartum depression was examined in a number of studies, all of which concluded that concern about the stigma of having to be treated for a mental health condition serves as a barrier to utilizing professional help (Abrams et al., 2009; Chisholm et al., 2004; Edge & MacKian, 2010; Epperson, 1999; Goodman, 2009; McCarthy & McMahon, 2008; McIntosh, 1993; Sword et al., 2008; Ugarriza, 2004). However, in the current study, level of stigma tolerance associated with psychological help, which actually examines if a woman has a tolerance for such a stigma and therefore whether it will serve as a barrier to her seeking help, was not found to have a significant effect on professional help utilization. These contradictory findings on this important factor should be further looked into, especially in light of the fairly small sample examining this relationship in this study and in light of fact that none of the studies listed above examined the relationship between stigma and utilization of professional help in a statistically systematic way and they were all studies that elicited perceived barriers from women or from service providers.

Prior studies that looked at a woman's social norm were also qualitative in nature and researchers concluded that families' negative attitudes toward seeking help serve as a barrier to seeking help (Bliszta et al., 2010; Goodman, 2009) and encouragement given by families to seek help serves as a facilitator to doing so (Sword et al., 2008). However, due to the fact that this barrier was not examined in these other studies in a predictive statistical way and to the contradicting result found in the current study, which suffered

from low power, the impact of a woman's social norm on utilization of professional help should be further examined.

Factors Predicting Utilization of non-Professional Help for Postpartum Depression

The analysis of this research question was non-significant, indicating that a woman's age, the number of children she has, her religious affiliation, her level of stigma tolerance associated with psychological help, her level of interpersonal openness, her level of confidence in mental health professionals, her family's income, whether she has child care available, her seeking help social norm, her recognition of personal need for professional psychological help, and screening positive for depressive symptoms were not significantly associated with utilization of non-professional help.

These non-significant results may have occurred due to the low power as a result of the small sample at the six month follow-up, implying that if there was a larger sample these results might have been significant. There was only one other study that looked at utilization of non-professional help for postpartum depression (McIntosh, 1993), but looked at other aspects, such as of being embarrassed and ashamed to turn to help and inability of family to help, as barriers to turning to family and friends for help.

The fact that 90% of women with postpartum depression symptomatology who sought help utilized non-professional help highlights the importance women give to such help in dealing with their postpartum depression. In addition, evidence from the literature shows that partner support and social support have a positive effect on women experiencing postpartum depression (Hung & Chung, 2001; Logsdon & Birkimer 1997; Shaila et al., 2000), and moreover, that when dealing with mild depression non-specific factors, such as social support, are potentially important to early improvement of

depression, regardless of treatment (Oxman & Sengupta, 2002). If non-professional help has such an important impact on reducing postpartum depression symptomatology, then factors that can enhance such utilization should be further examined. This is especially important when studying the ultra-orthodox community, which seem to have a preference of turning to non-professional sources for help with mental health issues (Firrner, 2001; Greenberg & Witztum, 2001; Lifshitz & Glaubman, 2004).

Of important note is mentioning the fact that very few women (N= 2, 2.2%) in the current study turned to their rabbi for help, even though evidence from some other literature emphasizes that the rabbi is a major source of help that ultra-orthodox people turn to for guidance in all aspects of life, including mental health problems (Greenberg & Witztum, 2001). This may have occurred because the husband is usually the one who turns to the rabbi for advice, and not all women shared their depressed feelings with their husbands. In addition, due to the fact that this study received a written approval from a known rabbi, it may be that women felt that if the rabbi approved the researcher then referrals made by the researcher were approved as well, and that there was no need to turn to a rabbi for additional advice.

Differences in Source of Help Used by Religious and Non-Religious Women

In an attempt to examine whether religious women differ from non-religious women in the sources of help they utilized, no significant differences were found. It should be noted that the four original religious groups (ultra-orthodox, orthodox, traditional and secular) were collapsed into two groups (religious and not religious) due to the small number of cases in the secular and traditional groups. Moreover, even though the religious groups were collapsed into two groups, most of the cases in the analysis

were those in the religious group because most of the sample consisted of orthodox and ultra-orthodox women. Therefore, there might not have been enough power to compare between the religious and non-religious groups. A more heterogeneous sample in terms of religious affiliation is needed in order to examine the relationship between religious affiliation and sources of help utilized for postpartum depression.

Factors Predicting 6-Month Follow-up Depression Scores

Level of depressive symptomatology at 6 weeks postpartum and utilization of non-professional help predicted 6-month follow-up depression scores. More precisely, for a woman who screened positive at the 6-week follow-up, higher levels of depressive symptomatology at 6 weeks postpartum were associated with higher levels of depressive symptomatology at 6 months postpartum. It seems reasonable that women with more severe symptoms will still have more severe symptoms compared to others at follow-up (even though total depressive symptomatology levels decreased).

In addition, women who utilized non-professional help were more likely to have lower depressive symptomatology at 6 months postpartum compared to women who didn't utilize non-professional help. The fact that non-professional help utilization was associated with a 3 point reduction in the EPDS score (which ranges from 0 to 30) at 6-months postpartum, points out the large effect utilization of non-professional help has on level of follow up depressive symptomatology. This supports what was mentioned earlier in that when dealing with mild depression, utilization of non-professional help could improve symptoms of depression, regardless of treatment (Oxman & Sengupta, 2002), and that non-professional support, such as partner and social support, has a positive effect

on women with postpartum depression (Hung & Chung, 2001; Logsdon & Birkimer 1997; Shaila et al., 2000).

Utilization of professional help did not predict 6-month follow-up depression scores. This may have occurred due to the stronger effect non-professional help utilization may have had on depression scores therefore weakening the effect of professional help utilization. This seems reasonable in light of the fact that most participants who utilized professional help utilized non-professional help as well. Only 10% of those who sought help utilized only professional help. Therefore the effect of professional help utilization on follow-up depression scores should be interpreted with caution and should be further investigated, especially in light of evidence from studies that point to the positive effect professional treatment, such as therapeutic and pharmacological interventions, has on the alleviation of postpartum depression (Appleby, Warner, Whitton & Faragher, 1997; Cohen, Viguers, Bouffard, et al., 2001; O'Hara, Stuart, Gorman & Wenzel, 2000; Seyfried & Marcus, 2003).

Difference in the Level of Depressive Symptomatology Between the 6-week Screening and the 6-month Screening

Level of depressive symptomatology significantly decreased from 6 weeks postpartum to 6 months postpartum. This factor brings optimism to women suffering from postpartum depression in that there is a clear reduction in symptoms over a few months. This finding is comparable with Beck's (2002) conclusion that 50%-75% of women with postpartum depression have episodes lasting up to 6 months, and with findings from other studies on major depression. For instance, Solomon et al. (1997) found that a treated major depressive episode lasts around 4.5 months, and Keller, Lavori,

Mueller, Endicott, Coryell, Hirschfeld, and Shea (1992) found that 50% of participants with major depression recovered within 6 months.

Strengths and Limitations of the Study

As all studies, this study has its unique strengths and limitations that should be considered when evaluating the various findings. The strengths and limitations are outlined and discussed according to the following categories: strengths and limitations of the study's findings, and strength and limitations of the methodology (i.e., sampling, research design, and measurement).

Strengths and Limitations of the Findings

This study contributes to the literature by systematically examining the understudied topic of help seeking for postpartum depression, in general, and in the ultra-orthodox community, in particular. Studying the ultra-orthodox community is extremely difficult, due to their unwillingness to cooperate with people who are considered outsiders to their community (Greenberg & Witztum, 2001). However, this study was carried out with the support of a leading ultra-orthodox rabbi, and the high response rate of ultra-orthodox participants was most likely a consequence of that approval. This study may, therefore, form the basis of understanding and studying the topic of mental health utilization for postpartum depression in the ultra-orthodox community.

In addition, assessing incidence of postpartum depression in the ultra-orthodox Israeli community was examined in only one other study that had fewer participants, in general, and from the ultra-orthodox community, in particular. Taking into account the fact that the ultra-orthodox community represents 17% of the Israeli population and has a

higher birth rate than the general Israeli population, this study is an important contributor to the examination of postpartum depression incidence in this population.

Examining non-professional help utilization for postpartum depression, in addition to professional care utilization, is an important contribution to the literature as well, in light of the fact that non-professional help utilization patterns and barriers were examined in only one other study (McIntosh, 1993). Studying the role of non-professional help utilization in the course and treatment of postpartum depression is especially important in light of evidence from the literature on the contribution of non-professional help to reduction in depression symptoms (Hung & Chung, 2001; Logsdon & Birkimer 1997; Oxman & Sengupta, 2002; Shaila et al., 2000).

Looking at postpartum depression scores over time and comparing utilization of professional and non-professional help as predictors of that factor is another contribution this study made to the literature, due to the fact that studies that looked at postpartum depression scores over time were mainly interested in assessing the effect of different types of treatment on levels of postpartum depression. This study added non-professional help utilization as a predictor and found it had a significant effect in reduction of symptoms.

Fit of the Behavioral Model of Health Service Use to the Study of Postpartum Depression

The fact that the Behavioral Model of Health Service Use model as a whole was not predictive of professional or non-professional help utilization was a surprising finding. The fact that the model was not significant may be due to a number of reasons: First, it was framed for predicting utilization of health care, and was not used to a great

extent in mental health studies. It may be that mental health care has other predictors, although a comprehensive model designed specifically for mental health utilization was not found; second, the model as a whole may have not been significant due to the relatively small sample and as a consequence limited power; third, it may be that the specific variables that were used to operationalize the constructs of the model did not fit well as predictors; fourth, it may be that the measures used to operationalize the model's constructs may have not encompassed the true meaning of the constructs underlying them, a fact that should be considered especially in light of the low reliability scores of some of the ATSPPS sub-scales; and finally, it may be that orthodox and ultra-orthodox women have barriers and facilitators to utilizing mental health care other than those depicted in the Behavioral Model of Health Service Use.

However, no other comprehensive model for predicting and explaining mental health care utilization, while allowing for multiple predictors that were mentioned in the literature, was found. In addition, due to the fact that studies examining utilization of care for postpartum depression in the orthodox and ultra-orthodox community were not found, and only one source (Greenberg & Witztum, 2001) mentioned a limited number of barriers the ultra-orthodox community has in turning to mental health care, this study may form the basis for understanding facilitators and barriers of these women to utilizing help, as well as their seeking help patterns.

Sampling Strengths and Limitations

Recruitment. Recruitment for this study was done in an ideal site for recruiting a representative sample of Jewish ultra-orthodox postpartum women. Sha'are Tzedek hospital is located in Jerusalem, one of two cities in Israel in which most of the ultra-

orthodox population resides (Lifshitz & Glaubman, 2004); is the only observant hospital in Jerusalem, a factor that attracts most of the ultra-orthodox births in the city; and has one of the highest birth rates in Israel.

Sha'arei Tzedek hospital administrators claimed that on any given day around 70% of women giving birth in the hospital are ultra-orthodox, 20% are orthodox, and 10% are non-orthodox/ non-Jewish. The study's sample was not too far from those percentages, with 48.5% of participants defining themselves as ultra-orthodox, 32.5% as orthodox, 11.2% as traditional, and 7.8% as secular. Discrepancies in these proportions may be due to hospital administrators' inaccurate estimations, especially in their differentiating between orthodox and ultra-orthodox women; to self-report bias (i.e. women defining their religious affiliation in a different way than the hospital administrators or than the given religious affiliation categories); or to lower response rates among the ultra-orthodox¹³, compared to their proportion in the hospital maternity ward population.

One should also bear in mind that ultra-orthodox women giving birth in Sha'arei Tzedek hospital may have different characteristics than ultra-orthodox women giving birth in other hospitals in Jerusalem or throughout Israel. In addition, due to the small percentage of traditional and secular women in the sample, generalization of the findings to these populations should be done with caution.

Approaching every eligible woman in the maternity ward, along with the minimal exclusion criteria, enhanced the representativeness of the sample to the population it was

¹³ Unfortunately no data are available on the women who chose not to participate so it is not possible to examine this.

recruited from. Although recruiting women from all hospitals in Israel, or at least from a wider range of hospitals, would have represented the Israeli population more accurately, this was beyond the ability of the researcher, being a doctoral student conducting a study on her own.

Sample Size Adequacy. The main statistical analysis with the most predictors that was used in the study was logistic regression; therefore sample size adequacy is examined in light of this analysis. The logistic regression analyses that examined predictors of help utilization (professional or non-professional) included 11 predictors. Based on Peng, Lee, and Ingersoll (2002), a minimum ratio of 10 observations to one predictor, with a minimum sample size of 100, is recommended, therefore there should have been at least 110 cases in the logistic regression analyses. However, only 78 cases were included in each of the two logistic regression analyses. This smaller sample than recommended lowered the power of the analyses, and may account for some of the non-significant findings. Nonetheless, the study had other significant findings that are of great importance.

Even though the sample size in some of the analyses was small, the high response rates at both follow ups, especially in light of the fact that the study was not conducted in an anonymous way, adds strength to the generalizability of the findings. It should be mentioned that women very willingly answered the questionnaires and expressed their appreciation of the study.

Design Strengths and Limitations

Attrition bias. Due to the fact that this was a longitudinal study design with two follow-ups, attrition was likely happen, and steps were taken in order to minimize it. First, women were approached individually and the study was explained to them face-to-face, instead of just handing out an envelope with all materials and explanation of the study; second, women were contacted at both follow-ups by telephone, rather than by mail, which is known to have a better response rate (Aday, 1996); and third, approaching participants at all three phases and referring them to treatment sources was done in an empathic and caring way, and women expressed their satisfaction with the study and gratitude to the researcher for conducting such a study, a factor that may have enhanced the response rate.

The attrition rate at the 6-week follow-up was relatively low (24%), and women who participated in this follow-up were found to be non-significantly different (except for family history of depression treatment) from those who did not participate in this follow-up. Therefore, it seems that attrition bias was quite low. In addition, the attrition rate at the 6-month follow-up was extremely low (6%), minimizing attrition bias as well.

Longitudinal design. A longitudinal study design has strengths as well. First, it assures temporal causality, because predictors are assessed before the independent variables are assessed. That is why predictors of the 6-week depression scores, of utilization of help, and of the 6-month depression scores were able to be tested. This is in contrast to a cross-sectional design, for example, in which all variables are assessed at the same time, therefore limiting the ability to examine causation. Second, the fact that women entered the study prior to depression symptomatology assessment strengthens the

study in that those who screened positive for depression were representative of the population more than participants who would have been recruited from a depressed sample, because it would have been difficult to know if their characteristics differ from the characteristics of non-depressed women in the population. Third, the longitudinal design allowed assessment of depressive symptomatology over time, from 6-weeks postpartum to 6-months postpartum, therefore allowing examination of the course of illness.

Method of data collection- reliability of responses. Although personal interviews have the most advantages in comparison to telephone or self-administered questionnaires, it was not feasible to use such a method in a large study, and moreover, telephone surveys produce comparable quality data at a lower cost in comparison to personal interviews (Aday, 1996). In addition, particularly in this study where the questions (specifically the EPDS and also the ATSPPHS) might have been perceived as threatening to participants, telephone and self-administered questionnaires are a better method for collecting data in comparison to personal interviews (Aday, 1996). It therefore seems that due to the chosen method of data collection participants are likely to have answered the EPDS and the ATSPPHS honestly, hence strengthening the trustworthiness of the study results.

Measurement Strengths and Limitations

ATSPPHS. Attitudes of participants toward seeking help were measured with the ATSPPHS. This instrument was not used in this study as an entire scale, but rather its sub-scales were used in the analyses. Although the reliability tests of the four sub-scales, which represent four different attitude factors, came out somewhat low (Cronbach alphas= .676, .692, .612, .722), they were close to or above the .70 point, which is

considered appropriate in order to indicate a reliable set of items (De Vaus, 2002). It should be noted that the only factor that was significant in the analyses was the fourth factor- confidence in mental health professionals- which had adequate reliability (.722). It may be that the somewhat low reliabilities of the other factors were part of the cause of their non-significant effects in the analyses.

EPDS. Level of depressive symptomatology was measured using the EPDS, which at both follow-ups was found to be reliable (Cronbach alpha= .757, .837, respectively); hence enhancing the reliability of the study findings. Nevertheless, the EPDS is a self-report screening tool that measures depressive symptomatology. It is not a clinical assessment diagnosing actual depression, but rather it indicates that sufficient depressive symptoms are present in order to make a depression diagnosis likely (Cox & Holden, 2003); therefore limiting findings to postpartum depression symptoms, and not postpartum depression per se. However, due to its easy-to-administer quality; the fact that 99% of participants in the current study answered the entire scale at both follow-ups; the fact that the EPDS is widely used in many postpartum depression studies; its established reliability and validity; and its relatively high sensitivity, specificity, and positive predictive value when it was compared to a depression diagnostic tool (RDC) (Cox & Holden), it seems to have been an appropriate tool for the purpose of this study: screening women, referring them to treatment, and re-screening them.

The fact that the major measures used in this study (EPDS and ATSPPHS) were previously used in several studies and were found to be reliable and valid, and in addition had Hebrew translations that were used in previous studies, strengthened the study as

well, especially in light of the fact that these measures were also found reliable (or almost reliable) in this study.

Implications

Numerous implications can be drawn from this study, and the most pertinent ones are divided into implications for research, theory, and practice, and will be discussed hereunder.

Implications for future research

One of the most important contributions of this study is that it sets the stage to investigate the issue of utilization of help for postpartum depression in a model-based and systematic way. Unfortunately the Behavioral Model of Health Service Use was not predictive, as a whole, of utilization of professional help, much of which may be due to sample size issues. It is therefore suggested that further research on predictors of professional service utilization for postpartum depression be carried out on general populations, as well as on specific cultures, using the Behavioral Model of Health Service Use with a larger sample, especially in light of the fact that a number of predictors that were non-significant in this study were significant in some other studies.

The effect of recognition of need for help should be further examined with a larger sample as well in light of the marginally-significant effect it had on professional help utilization (perhaps due to small sample size) and the significant correlation that was found between it and the EPDS scores. These two facts suggest that higher level of depressive symptomatology alone may not be enough to predict utilization of professional help, but rather that level of depressive symptoms, together with the

recognition that one has high depressive symptoms and therefore is in need for help, are likely to predict professional help utilization.

Future research with a larger sample should further examine predictors of postpartum depression in the Israeli population. There are limited studies on postpartum depression predictors in Israel, and results from this study suggest examining this issue with a larger sample, including exploring the interactions and mediating effects between predictors of postpartum depression symptomatology.

A larger sample is needed also in order to examine the effect of professional help utilization on the level of postpartum depressive symptomatology at 6-months postpartum. In the current study there were not enough women who utilized professional help, and it is not clear why this predictor was non-significant, especially in light of studies that demonstrate the efficacy of professional treatment in reducing postpartum depression symptoms. The effects of professional and non-professional help on continuing depressive symptomatology have significant ramifications on formulating care programs for postpartum depressed women, and should therefore be carefully examined in future research.

The fact that non-professional help utilization was a predictor of lower depressive symptomatology at 6-months postpartum requires further research into the course of postpartum depression, assessing what type of help utilization, or combination of sources of help, is the one with the most effect on the lowering of depressive symptoms. A larger sample of women should be followed up 6-months postpartum as well as 1-year postpartum assessing, at both times, the differences in postpartum depressive

symptomatology between those who did not seek help, those who sought professional help, and those who sought non-professional help.

As to the Israeli population, it is recommended that future research using a more heterogeneous religious-affiliated sample should examine if religious affiliation is a predictor of utilization of professional, as well as non-professional help for postpartum depression. A heterogeneous religious-affiliated sample should be used in future research also in order to assess whether religious affiliation is a predictor of postpartum depression symptomatology. This study did not have enough cases in the secular and traditional groups in order to assess such a relationship; however in light of extensive research on the protective effects of culture and religion on mental health problems, in general, and on postpartum depression, in particular, and in light of the relatively low incidence of postpartum depression symptomatology found in this study, the association between religious affiliation and postpartum depression symptomatology seems an important one to study.

A heterogeneous religious-affiliated larger sample could also help in examining the relationship between religious affiliation and sources of help utilized. The sample in this study was not heterogeneous and not large enough in order to reach a conclusion of whether there is a difference between the religious-affiliated groups on their preferred sources of help utilized (professional or non-professional). Specifically, the notion that the ultra-orthodox community under-utilizes mental health professional help as opposed to the general population was not supported in this study, and further research with a larger sample is needed in order to reach a clear conclusion.

Developing a measure for assessing attitudes toward seeking professional help for postpartum depression, in particular, and for mental health issues, in general, is of essence. The only measure that was found in this area was the ATSPPHS, which as a whole has good psychometric properties; however, the reliability scores of most of the sub-scales were quite low in this study as well in the validation study of the measure. Due to the fact that the constructs underlying each of the four sub-scales are important to postpartum depression help utilization, in light of the literature, it is therefore recommended that a more reliable measure be built on the bases of the ATSPPHS and its sub-scales.

Implications for theory-building

Realizing the significant effect non-professional help utilization has on reducing postpartum depression symptoms, there is a need to formulate a model for predicting and explaining non-professional help utilization for postpartum depression. As a consequence of the non-significant findings with regard to predicting non-professional help utilization, the Behavioral Model of Health Service Use may not be applicable to non-professional help utilization for postpartum depression. In addition, there is a lack of literature on such predictors and barriers to non-professional help utilization, and it therefore recommended that a model that could explain and predict non-professional help utilization for postpartum depression be developed. As a first stage, a number of qualitative studies, including interviews and focus groups should be carried out in order to assess barriers and facilitators to non-professional help utilization, and at a later stage a comprehensive model could be developed. The model should be able to account for utilization of

multiple sources of non-professional help and for cultural elements or religious affiliations that could effect non-professional help utilization.

Based on the fact that there is no literature on professional help utilization in the ultra-orthodox community and there are limited sources on utilization of help for general mental health problems in this community, more in-depth qualitative work should be done in order to elicit barriers and predictors for utilization of professional help as well. After such extensive work is done the fit of the Behavioral Model of Health Service Use to the ultra-orthodox community could be assessed, and a new model developed, if necessary.

Implications for Social Work Practice

The findings of this study emphasize the importance of a woman's awareness of the fact that she has depressive symptoms in order to turn to help. One of the important results of this study is that a high percentage of women turned to some source of help for their postpartum depression. What brought so many women, as opposed to other studies, to seek help for their depressive symptoms? Some hypotheses may be raised in order to answer this question, and they have important implications for future practice. One suggestion may be that due to the screening participants underwent at 6-weeks postpartum they became aware of the fact that they had depressive symptoms. Another explanation may be that the information on postpartum depression made them more knowledgeable of the subject, and this knowledge formed the basis for turning for help. A third explanation may be that the fact participants were offered various treatment options raised the likelihood that each one could find a treatment that suits her, which in turn

raised the likelihood she will actually turn to that source of help. Finally, it may be that the fact women knew they would be followed-up caused them to seek help.

As a consequence of this important finding, and of similar findings in other studies, screening should be offered routinely to postpartum women. Emphasis should be put on prevention of severe depression. Therefore, screening should be done as early as possible, at best between 4-6 weeks postpartum. In places where appropriate, such as in OB/GYN clinics, screening could begin during pregnancy and be followed-up postpartum. There are a number of places in the U.S. where such screening is carried out, and it was found to be feasible and easy to administer (Chaudron, Szilagyi, Kitzman, Wadkins, & Conwell, 2004). In Israel routine screening with the EPDS is used in several mother-and-child centers that provide well baby visits and immunizations; however it should be expanded to be used in all of these centers around the country, therefore becoming accessible to all postpartum mothers. This routine screening can help mothers become aware of their depressive symptoms early on and not wait until symptoms become severe before turning to help. Screening could also help mothers learn more about what postpartum depression is and what treatments are appropriate, therefore enhancing the likelihood that they will utilize the help they were referred to.

There is a need to offer various types of treatments, including professional and non-professional, in order for women to be able to choose the type of treatment that most suits them. Having a structured referral system with recommended professionals could raise the confidence of women in these mental health professionals, and as a consequence raise the likelihood that they utilize the help they were referred to. Follow-up is very important in order to enhance the number of women who utilize help, to answer women's

questions regarding their situation and their referrals, and in order to refer elsewhere if a certain referral did not help.

Careful attention should be given to the cultural context of each woman in order to make sure that the referral is culturally appropriate for her. This will enhance the likelihood that she will turn to help and be satisfied with it. In cultures, such as the ultra-orthodox community, where non-professional help is preferred, a referral system that includes an initial referral to a non-professional source of help, such as a key figure in the community, may be more suitable than an initial referral to a professional source of help, and may raise the likelihood that more women turn to help. Nonetheless, this non-professional source of help needs to be well-experienced in dealing with postpartum depression in order to provide appropriate help and to refer to a professional source of help when needed. Therefore there is a need to educate husbands on what postpartum depression is and what types of treatment are available in order for them to be able to help their wives cope with their depression and refer them for treatment when needed.

The population, in general, should also be educated on the subject in order for people to become aware of what postpartum depression is and what types of treatments are available. This way friends, family, and others could learn how to help women with postpartum depression and where to refer them when needed. Expanding society's knowledge about what postpartum depression is and that it is treatable will also help reduce the stigma attached to postpartum depression; understanding that this disorder is treatable and that women could reassume their roles and function normatively in society. This may raise the number of women who turn to help for their depression.

Conclusion

Hopefully this study contributed to the literature by raising the awareness of the importance of examining barriers and facilitators to postpartum depression help utilization, by overcoming such barriers, and by discovering ways to raise the likelihood that women with postpartum depression utilize the most suitable proper help. As a consequence, hopefully more women will engage early on in treatment and overcome their postpartum depression, enhancing health, strength and hope for themselves and their families.

APPENDIX I

Baseline Questionnaire

The following questions are closed-ended with some “yes/no” answer categories and some multiple-choice answer categories. Please choose only one answer by placing an X next to the most applicable to you, unless instructed otherwise. Open-ended questions should be answered on the line provided next to the question.

1. What is your age? _____
2. How many children do you have?

3. Number of previous pregnancies

4. What is your marital status?
 Married
 Single
 Widowed
 Divorced
5. How would you define your religious affiliation?
 Ultra-orthodox
 Orthodox
 Traditional
 Secular
6. Have you ever felt a need to be treated for depression?
 Yes
 No
7. Has anyone in your family been treated for depression?
 Yes. Their relation to you

 No

8. What is your family's level of income (including stipends)?
 Under NIS¹⁴ 3,500
 Between NIS 3,501 and NIS 7,500
 Between NIS 7,501 and NIS 11,500
 Above NIS 11,500
9. Is child care available for your baby and your other children, if you would need such care?
 Yes
 No

For question 10: Please indicate the likelihood that the following statement will occur. ↴

10. Most people who are important to me would think that I should seek help from a mental health professional if I were experiencing a persistent personal problem in my life
 Extremely likely
 Quite likely
 Slightly likely
 Neither likely nor unlikely
 Slightly unlikely
 Quite unlikely
 Extremely unlikely

For questions 11 through 39: Below are a number of statements pertaining to psychology and mental health issues. Please read each statement and indicate your level of agreement with it. ↴

11. Although there are clinics for people with emotional troubles, I would not have much faith in them.
 Agree
 Partly agree
 Partly disagree
 Disagree

¹⁴ NIS = new Israel shekels (\$1 = NIS 4)

12. If a good friend asked me advice about an emotional problem, I might recommend that he see a therapist.
 Agree
 Partly agree
 Partly disagree
 Disagree
13. I would feel uneasy going to a therapist because of what some people would think.
 Agree
 Partly agree
 Partly disagree
 Disagree
14. A person with a strong character can get over emotional conflicts by himself, and would have little need of a therapist.
 Agree
 Partly agree
 Partly disagree
 Disagree
15. There are times when I have felt completely lost, and would have welcomed professional advice for a personal or emotional problem.
 Agree
 Partly agree
 Partly disagree
 Disagree
16. Considering the time and expense involved in psychotherapy, it would have doubtful value for a person like me.
 Agree
 Partly agree
 Partly disagree
 Disagree
17. I would willingly confide intimate matters to an appropriate person if I thought it might help me or a member of my family.
 Agree
 Partly agree
 Partly disagree
 Disagree
18. I would rather live with certain emotional conflicts than go through the ordeal of getting treatment.
 Agree
 Partly agree
 Partly disagree
 Disagree
19. Emotional difficulties, like many things, tend to work out themselves.
 Agree
 Partly agree
 Partly disagree
 Disagree
20. There are certain problems which should not be discussed outside one's immediate family.
 Agree
 Partly agree
 Partly disagree
 Disagree
21. A person with a serious emotional disturbance would probably feel best in therapy.
 Agree
 Partly agree
 Partly disagree
 Disagree
22. If I believed I was having an emotional breakdown, my first inclination would be to get professional attention.
 Agree
 Partly agree
 Partly disagree
 Disagree

23. Keeping one's mind on a job is a good solution for avoiding personal worries and concerns.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
24. Having been in therapy is a blot on a person's life.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
25. I would rather be advised by a close friend than by a therapist, even for an emotional problem.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
26. A person with an emotional problem is not likely to solve it alone; he is likely to solve it with professional help.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
27. I resent a person- professionally trained or not- who wants to know about my personal difficulties.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
28. I would want to get therapeutic attention if I was worried or upset for a long period of time.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
29. The idea of talking about problems with a therapist strikes me as a poor way to get rid of emotional conflicts.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
30. Having had an emotional problem carries with it a burden of shame.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
31. There are experiences in my life I would not discuss with anyone.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
32. It is probably best not to know everything about oneself.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
33. If I were experiencing a serious emotional crises at this point in my life, I would be confident that I could find relief in therapy.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree

34. There is something admirable in the attitude of a person who is willing to cope with his conflicts and fears without resorting to professional help.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
35. At some future time I might want to have emotional counseling.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
36. A person should work out his own problems; getting professional counseling would be a last resort.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
37. Had I received emotional treatment, I would not feel that it ought to be "covered up".
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
38. If I thought I needed emotional help, I would get it no matter who knew about it.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree
39. It is difficult to talk about personal affairs with highly educated people such as doctors, teachers, and clergymen.
- Agree
 - Partly agree
 - Partly disagree
 - Disagree

APPENDIX II
Follow Up I Questionnaire

In each question please choose one sentence that most closely describes the way you have felt in the past seven days, including today.



1. I have been able to laugh and see the funny side of things:
 - As much as I always could
 - Not quite so much now
 - Definitely not so much now
 - Not at all
2. I have looked forward with enjoyment to things:
 - As much as I ever did
 - Rather less than I used to
 - Definitely less than I used to
 - Hardly at all
3. I have blamed myself unnecessarily when things went wrong:
 - Yes, most of the time
 - Yes, some of the time
 - Not very often
 - No, never
4. I have been anxious or worried for no good reason:
 - No, not at all
 - Hardly ever
 - Yes, sometimes
 - Yes, very often
5. I have felt scared or panicky for no very good reason:
 - Yes, quite a lot
 - Yes, sometimes
 - No, not much
 - No, not at all
6. Things have been getting on top of me:
 - Yes, most of the time I haven't been able to cope at all
 - Yes, sometimes I haven't been coping as well as usual
 - No, most of the time I have coped quite well
 - No, I have been coping as well as ever
7. I have been so unhappy that I have had difficulty sleeping:
 - Yes, most of the time
 - Yes, sometimes
 - Not very often
 - No, not at all
8. I have felt sad or miserable;
 - Yes, most of the time
 - Yes, quite often
 - Not very often
 - No, not at all
9. I have been so unhappy that I have been crying:
 - Yes, most of the time
 - Yes, quite often
 - Only occasionally
 - No, never
10. The thought of harming myself has occurred to me:
 - Yes, quite often
 - Sometimes
 - Hardly ever
 - Never

APPENDIX III
Follow Up II Questionnaire

The following questions are closed-ended with some “yes/no” answer categories and some multiple-choice answer categories. Please choose only one answer by placing an X next to the most applicable to you, unless instructed otherwise. Open-ended questions should be answered on the line provided next to the question.

1. Did you obtain help for your depression?
 - Yes
 - No (Skip to number 16)
2. Who did you turn to for help? **Please mark all that apply**
 - Psychologist
 - Psychiatrist
 - Social worker
 - Other mental health professional (please indicate) _____
 - Primary care provider
 - OB/GYN
 - Maternal-and Child Clinic’s nurse¹⁵
 - Rabbi
 - Husband
 - Mother
 - Other family member (please indicate) _____
 - Friend
 - Other person (please indicate his/her relationship to you) _____

¹⁵ Mother-and-Child centers are clinics that provide well-checkups, growth follow-ups, nutrition guidance, and all vaccinations for infants and children up to the age of six years.

For questions 3 through 15: please answer only those regarding the sources of help that you turned to: 

3. Were you satisfied with the help you got from the psychologist?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor not satisfied
 - Not satisfied
 - Extremely not satisfied
4. Were you satisfied with the help you got from the psychiatrist?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor not satisfied
 - Not satisfied
 - Extremely not satisfied
5. Were you satisfied with the help you got from the social worker?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor not satisfied
 - Not satisfied
 - Extremely not satisfied
6. Were you satisfied with the help you got from the other mental health professional?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor not satisfied
 - Not satisfied
 - Extremely not satisfied
7. Were you satisfied with the help you got from your primary care provider?
 - Very satisfied
 - Satisfied
 - Neither satisfied nor not satisfied
 - Not satisfied
 - Extremely not satisfied

8. Were you satisfied with the help you got from your OB/GYN?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
9. Were you satisfied with the help you got from the nurse at your Maternal- and Child Clinic?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
10. Were you satisfied with the help you got from your rabbi?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
11. Were you satisfied with the help you got from your husband?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
12. Were you satisfied with the help you got from your mother?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
13. Were you satisfied with the help you got from your other family member?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
14. Were you satisfied with the help you got from your friend?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
15. Were you satisfied with the help you got from other person?
 Very satisfied
 Satisfied
 Neither satisfied nor not satisfied
 Not satisfied
 Extremely not satisfied
16. Why did you not seek help for your depression?

- For questions 17 through 26:** Please mark an X next to one sentence in each question that most closely describes the way you have felt in the past seven days, including today. ↓
17. I have been able to laugh and see the funny side of things:
 As much as I always could
 Not quite so much now
 Definitely not so much now
 Not at all

18. I have looked forward with enjoyment to things:
_ As much as I ever did
_ Rather less than I used to
_ Definitely less than I used to
_ Hardly at all
19. I have blamed myself unnecessarily when things went wrong:
_ Yes, most of the time
_ Yes, some of the time
_ Not very often
_ No, never
20. I have been anxious or worried for no good reason:
_ No, not at all
_ Hardly ever
_ Yes, sometimes
_ Yes, very often
21. I have felt scared or panicky for no very good reason:
_ Yes, quite a lot
_ Yes, sometimes
_ No, not much
_ No, not at all
22. Things have been getting on top of me:
_ Yes, most of the time I haven't been able to cope at all
_ Yes, sometimes I haven't been coping as well as usual
_ No, most of the time I have coped quite well
_ No, I have been coping as well as ever
23. I have been so unhappy that I have had difficulty sleeping:
_ Yes, most of the time
_ Yes, sometimes
_ Not very often
_ No, not at all
24. I have felt sad or miserable;
_ Yes, most of the time
_ Yes, quite often
_ Not very often
_ No, not at all
25. I have been so unhappy that I have been crying:
_ Yes, most of the time
_ Yes, quite often
_ Only occasionally
_ No, never
26. The thought of harming myself has occurred to me:
_ Yes, quite often
_ Sometimes
_ Hardly ever
_ Never

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