

PREVENTION OF POSTPARTUM DEPRESSION AT AN OB/GYN CLINIC:
A TRANSLATIONAL RESEARCH PROJECT USING
GROUP INTERPERSONAL PSYCHOTHERAPY

by

Susana Joy Donofry

A scholarly project submitted in partial fulfillment
of the requirements for the degree

of

Doctor of Nursing Practice

in

Family and Individual Health

MONTANA STATE UNIVERSITY
Bozeman, Montana

April 2018

©COPYRIGHT

by

Susana Joy Donofry

2018

All Rights Reserved

ACKNOWLEDGMENTS

I would like to acknowledge my DNP committee chair, Sandy Kuntz, for her support, knowledge, skill, and guidance through this process. I would also like to thank my DNP committee members, Dr. Julie Pullen, Karrin Sax, and Diane Goedde, for their time and energy volunteered to the success of this project. The expertise of these individuals, and the way they provided their guidance in timely and professional manners, have been invaluable. I would like to acknowledge the hosting facility, especially Dr. Christine Snyder (Ryan), for their eagerness to help and willingness to support this project. Without the leadership of this facility, I would not have been able to complete this project. I would like to thank my husband, for his ever-present support and his endless words of encouragement. Lastly, I would like to acknowledge my Creator. He gave me the wisdom, energy, and courage to carry out this project. Thank you.

TABLE OF CONTENTS

1. INTRODUCTION TO THE STUDY	1
Introduction.....	1
Background	2
Statement of the Problem.....	4
Purpose.....	4
Scholarly Project Inquiry Question.....	5
Conceptual Framework.....	5
Significance of the Study to Nursing	7
Operational Definition of Terms.....	8
Assumptions.....	9
Limitations	9
Organization of the Remainder of the Project	11
2. REVIEW OF THE LITERATURE	12
Introduction.....	12
Search Method/Results	12
Edinburgh Postnatal Depression Scale	14
Watson’s Theory of Caring.....	15
Group Interpersonal Psychotherapy.....	15
Randomized-Controlled Trials of Group IPT	15
Defining Treatment-as-Usual.....	16
Screening for At-Risk Women.....	17
Synthesis of Results	17
Individual Summaries of Results	18
Systematic Review for Preventing PPD	20
Screening for Postpartum Depression and the Edinburgh Postnatal Depression Scale	21
Edinburgh Postnatal Depression Scale	22
Clinically Significant Changes in EPDS Scores	26
Conceptual Framework.....	27
3. METHODS	29
Introduction.....	29
Design Overview	29
Setting and Sample Population	30
Protection of Human Subjects	30
Procedures.....	31
Measures	33

TABLE OF CONTENTS CONTINUED

Data Analysis	34
4. RESULTS	35
Introduction	35
Purpose (A) Translate Current Best Evidence into Practice	35
Best Evidence.....	36
Choosing a Theoretical Framework.....	39
Selection of the Measurement Tool	40
Purpose (B) Design and Implement an IPT Group Intervention at One Colorado OB/GYN Clinic	41
Choosing a Clinic.....	41
Clinical Setting.....	42
Purpose (C) Evaluate the Impact of The Intervention Based on EPDS Scores	43
Participant Recruitment and Pre-intervention Procedure	43
Demographic Information.....	46
The Intervention.....	46
First Session	47
Second Session.....	47
Third Session	47
Final Session	48
Use of Theoretical Framework	48
Modification of the Intervention.....	49
Data Analysis	50
Pre-intervention EPDS Scores	50
Post-Intervention EPDS Scores	50
Inquiry Question and Treatment-as-Usual in the Literature	51
Results of Satisfaction Survey	52
Connection between Satisfaction Survey and Theory of Caring	53
Personnel and Cost.....	54
Summary of Results	56
5. DISCUSSION	58
Summary	58
Strengths of the Project.....	59
Unanticipated Finding.....	60
Limitations	61
Successes and Difficulties.....	62
Future Use of Intervention	63
Steps to Improve Future Projects.....	64

TABLE OF CONTENTS CONTINUED

Conclusion65

REFERENCES CITED.....67

APPENDICES77

 APPENDIX A: The 10 Caritas Processes®.....78

 APPENDIX B: Summary of Evidence for Group IPT80

 APPENDIX C: Edinburgh Postnatal Depression Scale.....84

 APPENDIX D: Cooper Survey Questionnaire87

LIST OF TABLES

Table	Page
1. Summary of Evidence for Group IPT to Prevent PPD	37
2. Descriptive Data for Pre-intervention Edinburgh Postnatal Depression Scale	50
3. EPDS Scores and Number of Risk Factors	50
4. Attendance and Score on Edinburgh Postnatal Depression Scale	51
5. Results from the Patient Satisfaction Survey	52

ABSTRACT

Between one in eight to ten mothers in the United States experience frequent postpartum depressive symptoms. Postpartum depression has a wide range of negative effects on a woman's psychological and social functioning, as well as her family's. Sufficient evidence indicates that an interpersonal psychotherapy group therapy intervention may help prevent postpartum depression in childbearing women. Unfortunately, many obstetrician and gynecologist clinics are not utilizing collaborative-care models that address such mental health needs. The purpose of this project was to (a) translate current best evidence into practice, (b) design and implement an interpersonal psychotherapy group intervention at one Colorado obstetrician and gynecologist clinic, and (c) evaluate the impact of the intervention based on the Edinburgh Postnatal Depression Scale scores at the beginning of the project and at six weeks postpartum. An evidence table was created to evaluate the current best evidence for preventing postpartum depression. A Colorado clinic was selected for its convenient location and sufficient patient population. An intervention was created based on the description of interventions utilized in the randomized-controlled trials that were included in the evidence table. Four women were recruited for the group intervention and only one woman completed the intervention and post-assessment tools. This woman had a clinically significant improvement in her depression scale from pre-intervention to post-intervention. An unanticipated difficulty was the low attendance rate or follow through with the intervention. This project highlights the need for more comprehensive services to prevent and treat postpartum depression. Psychiatric nurse practitioners are optimally placed to coordinate and/or deliver the services in coordination with obstetrician and gynecologist clinics.

CHAPTER ONE

INTRODUCTION TO THE STUDY

Introduction

Between one in eight to ten mothers in the United States experiences frequent postpartum depressive symptoms (Center for Disease Control and Prevention [CDC], 2009; CDC, 2011). A meta-analysis of 59 studies found postpartum depression (PPD) to have an average prevalence of 13% within the first 12 weeks following childbirth (O'Hara & Swain, 1996). Additionally, a systematic review found the period prevalence of major and minor depression to be 19.2% in the first three months following delivery (Gaynes et al., 2005). For about 8% of mothers, their depressive symptoms continue past the first nine months postpartum (Dennis, Heaman, & Vigod, 2012). Common symptoms of depression include fatigue, insomnia, guilt, anhedonia, hopelessness, sadness, and decreased ability to concentrate (American Psychiatric Association [APA], 2013). Additionally, depression often appears with symptoms of anxiety (World Federation for Mental Health [WFMH], 2012) and can be life-threatening (McDonagh et al., 2014).

Depression impairs social, occupational, and other important areas of functioning (APA, 2013). It is the leading cause of disability worldwide in terms of total years lost due to disability, especially for women, accounting for 4.3% of the global burden of disease (MFMH, 2012; World Health Organization [WHO], 2013). In addition to negatively affecting the woman herself, depression also has a substantial negative impact on her child and family. A meta-analysis of observational studies reports that depressed

mothers are more likely to be irritable, hostile, less engaged, and to have lower rates of play with their child (Lovejoy, Graczyk, O'Hare, & Neuman, 2000). A review of longitudinal studies reports that children of depressed parents are at greater risk for depression themselves, and are more likely to experience psychosocial problems and cognitive delays (Beardslee, Versage, & Gladstone, 1998). Weissman et al. (2006) found a threefold higher risk of mood and anxiety disorders, mainly depression and phobias, at 20-year follow-up for offspring of depressed parents, as compared with non-depressed parents. Goodman and Gotlib (1999) conclude that there is a sizeable amount of literature that documents the adverse effects of maternal depression on the functioning and development of offspring.

Background

According to Jones and Cantwell (2010), there has been a link between childbirth and affective disorders “for many hundreds of years” (p. 33). While this association has been recognized, depression with postpartum onset was not officially recognized in a diagnostic manner until 1994 with the publication of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM; APA, 1994). The most recent addition of the DSM (APA, 2013) continues to recognize depression associated with pregnancy, using the specifier “with peripartum onset,” (p. 162) which is defined as a depressive episode starting during pregnancy or during the four weeks following delivery. The tenth version of the International Classification of Diseases (ICD-10) also recognizes postpartum depression, as noted in the section about mental and behavioral disorders

associated with the puerperium and is defined as commencing within six weeks of delivery (WHO, 2016).

Discussions of the “baby blues” began to appear in the American popular press starting in the 1950s (Held & Rutherford, 2012). Prior to 1952, there were no magazine articles dedicated to the baby blues, other than a few references to moodiness (Held & Rutherford, 2012). A 1960 publication of *Good Housekeeping* magazine marked the first use of the term *postpartum depression* in the popular press (Held & Rutherford, 2012).

As postpartum depression gathered more attention, treatment began to address mothers’ needs. Postpartum self-help groups became popular in the late 1980s (Taylor, 2000). Women found support and community through face-to-face groups, telephone networks, self-help books, talk shows, and pen-pal networks (Taylor, 2000). Medication became popularized in the 1960s with the release of the first minor tranquilizer, Miltown (Held & Rutherford, 2012). Today, treatment of postpartum depression includes a variety of modalities. A systematic review and meta-analysis (Dennis & Hodnett, 2007) identified that cognitive behavioral therapy and interpersonal psychotherapy (IPT) reduced depressive symptomatology compared to treatment-as-usual in women diagnosed with postpartum depression, as did psychosocial interventions such as peer support and nondirective counseling provided by either trained health visitors/nurses or peer volunteers.

Statement of the Problem

PPD has a wide range of negative effects on a woman's psychological and social functioning, as well as her family's. Antepartum group interventions that utilize IPT significantly decrease the number of women who develop postpartum depression (Dennis & Doswell, 2013). Unfortunately, many obstetrician-gynecologist (OB/GYN) clinics are not utilizing collaborative-care models that address such mental health needs (LaRocco-Cockburn et al., 2013). Additionally, many women are not being screened for depression by their OB/GYN providers (LaRocco-Cockburn, Melville, Bell, & Katon, 2003). A study by LaRocco-Cochran et al. (2003) found that, while over three-quarters of OB/GYN providers believe that screening for depression improves detection and outcomes, screening occurs less than half the time.

Purpose

Sufficient evidence indicates that an IPT group therapy intervention may help prevent PPD in childbearing women (Crockett, Zlotnick, Davis, Payne, & Washington, 2008; Gao, Chan, Li, Chen, & Hao, 2010; Gao, Chan, & Sun, 2012; Zlotnick, Johnson, Miller, Pearlstein, & Howard, 2001; Zlotnick, Miller, Pearlstein, Howard, & Sweeney, 2006; Zlotnick, Tzilos, Miller, Siefer, & Stout, 2016). The purpose of this project is to (a) translate current best evidence into practice, (b) design and implement an IPT group intervention at one Colorado OB/GYN clinic, and (c) evaluate the impact of the intervention based on the Edinburgh Postnatal Depression Scale (EPDS) scores at the beginning of the project and at six weeks postpartum.

Scholarly Project Inquiry Question

Among pregnant women in the third trimester at risk for developing PPD, does group IPT compared to treatment-as-usual decrease symptoms of PPD as evidenced by scores on the Edinburgh Postnatal Depression Scale (EPDS)?

Conceptual Framework

This project will be guided by Jean Watson's Theory of Caring (Watson, 2008). Her work has been influenced by Nightingale, Henderson, Leininger, Peplau, Maslow, Rogers, Yalom, Whitehead, Heidegger, Erickson, and Lazarus, among others (Masters, 2015; Watson, 1985; Watson, 1979). Watson's Theory of Caring (Watson, 2008) focuses on defining and describing caring and its relatedness to nursing. She underscores that caring is a "central feature within the meta-paradigm of nursing knowledge and practice" (Watson, 2008, p. 19). Watson has developed a theory that offers direction for nurse-patient interactions and healthcare delivery. The theory emphasizes a reciprocal, transpersonal relationship that takes place in caring moments, which is guided by caritas processes (Watson, 1999). The 10 Caritas Processes® are core nursing practices essential to the delivery of care that "facilitate healing, honor wholeness, and contribute to the evolution of humanity" (Watson, 2008, p. 17). These processes are described below and included in Appendix A.

A key starting point for the Theory of Human Caring (Watson, 2008) is understanding Watson's focus on the core versus the trim of nursing. When writing her original treatises, Watson (1985) explains that she chose to concentrate on the nursing core

rather than on nursing trim. The term trim refers to the “practice setting, the procedures, the specialized clinical focus, and the techniques and specific terminology surrounding the diverse orientations and preoccupations of nursing” (Watson, 1985, p. xv). Nursing trim describes the clinical tasks performed, such as inserting IVs or administering medication. The term core refers to “those aspects of nursing that are intrinsic to the actual nurse-patient/client process that produces therapeutic results in the person being served” (Watson, 1985, p. xv). These are the intangible processes that occur between the nurse and patient that aid in healing and caring. According to Watson, the basic core of nursing is comprised of the philosophy and science of caring. These concepts, along with the caritas processes, will serve as a framework for this project and guide the delivering of the intervention.

Three of the 10 Caritas Processes® will be utilized throughout the scholarly project. First, the doctoral candidate will be authentically present with patients, respecting their deep belief system and subjective life world, which reflects the second caritas process developed by Watson (2008). She will interact with the women in a respectful manner, engaging with them in a warm, inviting, and nonjudgmental style. Second, the candidate will be present and supportive of the expression of positive and negative feelings throughout the intervention, which reflects the fifth caritas process (Watson, 2008). The expression of feelings complements the IPT framework utilized in the intervention, which encourages an exploration of *role transitions* where the patient is encouraged to explore positive and negative feelings related to transitioning out of old roles and into new ones (Weissman, Markowitz, & Klerman, 2007). Third, the DNP

candidate will engage in a genuine teaching-learning experience within the context of the nurse-patient relationship (Caritas Process 7; Watson, 2008) by meeting with women during the third trimester to teach them about postpartum depression, feelings, communication skills, and conflict resolution skills by means of the IPT intervention.

Significance of the Study to Nursing

Postpartum depression not only affects the mother herself, but it adversely affects her family and those around her. In a comprehensive review, Field (2010) noted that affected women had compromised feeding practices (e.g., early discontinuation of breast feeding, breast-feeding problems, low breast-feeding self-efficacy) and sleep routines (e.g., placing infant in prone position, infant waking more often and for longer periods of time, infant sleeping in the parent's bed). Additionally, children of mothers with PPD received fewer well-child visits, utilized emergency department more frequently, and received fewer vaccinations (Field, 2010). Mothers with PPD were also less likely to utilize safety practices, such as using infant car seats, having electrical outlet covers, having safety latches on cabinets, and using a lower temperature setting on the water heater (Field, 2010). These findings have important clinical and public health implications for women's health providers and pediatricians.

Le, Muñoz, Ippen, and Stoddard (2003) argue that targeting prevention and treatment of major depression in women would have a positive impact on other major public health problems as well. The authors argue that it could reduce several causes of preventable death in the United States (e.g., tobacco, alcohol, firearms, and illicit drugs).

The authors make the case that a proportion of factors leading to preventable death are attributable to depression and, therefore, preventing major depression in women should be a national priority. Further, women who develop major depression during pregnancy or postpartum are at greater risk for recurrent episodes of later depression (Le et al., 2003), thus complicating outcomes.

Operational Definition of Terms

- Cognitive behavioral therapy – a form of talk therapy that involves challenging negative thoughts and beliefs and replacing them with more positive ways of thinking, which leads to desired changes in behavior (Corey, 2013). The therapist plays an active and directive role in this more educationally focused treatment which focuses on specific target problems.
- Group therapy – a form of talk therapy that involves a therapist leader and at least two (or more) clients. Yalom (1995) identifies 11 therapeutic factors of group therapy that lead to positive change: installation of hope, universality, imparting information, altruism, the corrective recapitulation of the primary family group, development of socializing techniques, imitative behavior, interpersonal learning, group cohesiveness, catharsis, and existential factors.
- Interpersonal psychotherapy – a time-limited, symptom-focused, talk therapy that was originally developed to treat unipolar, nonpsychotic depression in adults (Corsini & Wedding, 2011). Instead of considering the causes of depression, treatment focuses on triggers, which involve disruptions of significant attachments and social roles

(e.g., becoming a mom). Therapy focuses on one of four problem areas that are seen within the interpersonal context: grief, interpersonal disputes, role transitions, and interpersonal deficits.

- Psychodynamic therapy – a form of talk therapy that incorporates aspects of classic psychoanalysis and focuses more attention on disturbances of childhood and adolescence (Corey, 2013; Corsini & Wedding, 2011). It explores past emotional issues, unconscious processes, and resistance.

Assumptions

- The EPDS is an effective screening tool for assessing symptoms of PPD.
- Women in their third trimester will complete the checklist used to identify risk factors for PPD, as well as the EPDS, accurately and to the best of their ability.
- Women will participate in the intervention once they are informed of its risks and benefits and agree to participate.

Limitations

It is possible that some women receiving the intervention may already meet criteria for a major depressive episode. The inclusion of their data in this project may skew the results of outcome data. This is due to the nature of the screening tool, which identifies risk factors for PPD, regardless of the presence of a current episode of depression. To remedy this to an extent, women were asked to answer the question, “Do you currently have a diagnosis of depression?” and “Are you currently being treated for

depression?” Answers to these questions would allow the statistical team to run different analyses on the data to see to what extent these women’s scores affected outcomes.

Another way to remedy this could be to exclude women from the intervention who have a current episode of depression. This solution was deemed to be too time-consuming and costly. A diagnosis of depression can be made only after a clinical interview, which is performed on an individual basis and generally takes an hour to complete. This would be too time-consuming and costly for the candidate to perform and for the clinic to continue to implement on an ongoing basis after the completion of this project. Additionally, the OB/GYN clinic staff, doctoral candidate, and committee chair decided that it would be unethical to exclude these women from the intervention since interpersonal psychotherapy is indicated for the treatment of depression, as well as for prevention of PPD (Dennis & Dowswell, 2013; Dennis & Hodnett, 2007). Therefore, it was reasonable to include women with or without a diagnosis of depression in the group intervention, and to bypass a clinical interview. This would allow for the provision of best care for women at the clinic, emphasizing the importance of caring, which reflects Watson’s Theory of Caring (Watson, 2008). Providing for the women’s mental health needs was more important to the group than obtaining better statistical data. Also, considering the purpose of a DNP scholarly project (to translate best evidence into practice), translation was more important than research outcomes.

Organization of the Remainder of the Project

The next chapter provides a review of relevant literature related to prenatal interventions for preventing PPD, screening for depression, and a review of depression research using Watson's (2008) theory. Chapter Three presents the project methodology and provides a description of participant selection, sample setting, study design, and procedures for data collection and analysis. In Chapter Four, the results of the project's collected data are presented. Chapter Five discusses the data analysis and the experience of translating evidence into practice, offering recommendations for future improvements.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

This chapter will review the current evidence for using group IPT as a prevention strategy for PPD using the Edinburgh Postnatal Depression Scale (EPDS), a screening tool for depression, and using Watson's (2008) theory as it relates to depression. The search methods used for this literature review are presented.

Search Method/Results

For literature on IPT, the databases used were Cumulative Index of Nursing and Allied Health Literature (CINAHL), MEDLINE, PsycARTICLES, and PsychINFO. Each database was searched using the following terms and Boolean operators: "prevent*" AND ("PPD" OR "postpartum depression") AND ("IPT" OR "interpersonal psychotherapy"). In PsycARTICLES and PsychINFO the terms were searched "anywhere" and articles were limited to peer-reviewed. This search yielded the same 17 articles in both databases. The MEDLINE search was limited to the search field "topic" (no MESH) and yielded 20 articles. No search field was specified in CINAHL for the same phrases, which yielded 13 articles.

After reviewing the 17 articles yielded through PsychINFO and PsycARTICLES, it was noted that the MEDLINE and CINAHL searches revealed duplications. Eleven of the 20 MEDLINE articles were duplicates. Further, six of the 20 MEDLINE articles were

unrelated to the current topic as the search term IPT picked up articles about isoniazide preventative therapy. This left three unique articles in MEDLINE (Dennis & Dowswell, 2013; Moses-Kolko & Roth, 2004; Nylén, O'Hara, Brock, Moel, Gorman, & Stuart, 2010). One of those articles (Dennis & Dowswell, 2013) was a Cochrane systematic review and will be discussed below. The other two articles are not relevant for this review as both focused on treatment of depression, with only brief mentions of the word prevention (Moses-Kolko & Roth, 2004; Nylén et al., 2010). Further, Moses-Kolko and Roth (2004) summarized information about the epidemiology, features, and treatment; they did not provide quantitative information. Nylén et al. (2010) looked at individual treatment of depression and not a group intervention, which is the focus of this project.

When reviewing the 13 CINAHL articles, 11 were duplicates—the same as articles found in the three other databases. This left two unique articles (Haller, 2005; Sword, 2005), of which neither were applicable to this review. Haller (2005) reviewed the epidemiology, screening, diagnosis, and *treatment* of depression during pregnancy and the postpartum period. Sword (2005) was a one-page review of an outdated systematic review (Dennis & Creedy, 2004), a review that has been updated by Dennis and Dowswell (2013).

Turning again to the 17 articles obtained from PsychINFO and PsycARTICLES, these articles were reviewed for preventative treatment in a randomized-controlled trial (RCT) format. Only five articles were found to meet this criteria (Crockett et al. 2008; Gao et al., 2012; Zlotnick et al. 2001; Zlotnick et al., 2006; Zlotnick et al., 2016). One additional article (Gao et al., 2010) was found by reviewing the references of Gao et al.

(2012) and Dennis and Dowswell (2013); this article reports on the same RCT as Gao et al. (2012), but with slightly different outcome measures. These six articles are discussed below with the Dennis and Dowswell's (2013) systematic review, and summarized in Appendix B. The other 12 articles were not applicable to this review for a variety of reasons. Four looked at individual, but not group, interventions (Grote, Bledsoe, Swartz, & Frank, 2004a; Grote, Bledsoe, Swartz, & Frank, 2004b; Grote et al., 2015; Grote et al., 2009), one looked at treatment and not prevention (Pearlstein et al., 2006), one was a secondary analysis of an included study that looked at breast-feeding measures (Kao, Johnson, Todorova, & Zlotnick, 2015), one was a secondary analysis of an included study that looked at perceptions of the intervention (Gao, Luo, & Chan, 2012), and five were review articles (Bledsoe & Grote, 2006; Dennis, 2004a; Dennis, 2004b; O'Hara, 2009; Miniati et al., 2014).

Edinburgh Postnatal Depression Scale

Literature about the EPDS was found searching MEDLINE for article titles (no MESH) that included "Edinburgh Postnatal Depression Scale" and applying publication-year limits of 2000 to present. This search yielded 137 results. Because of the plethora of information on the EPDS, the results of this search were further refined to include only reviews. This search refinement produced seven review articles (Eberhard-Gran, Eskild, Tambs, Opjordsmoen, & Samuelsen, 2001; Gibson, McKenzie-McHarg, Shakespeare, Price, & Gray, 2009; Guedeney, Fermanian, Guelfi, & Kumar, 2000; Kozinsky & Dudas, 2015; Matthey, 2004; Matthey, Fisher, & Rowe, 2013; Shrestha, Pradhan, Tran, Gualano, & Fisher, 2016). These articles are discussed below with the exception of one article that

focused only on anxiety disorders (Matthey et al., 2013). The discussion below also includes the original EPDS validation studies by Cox et al. (1987) and Murray and Cox (1990), as well as a comparative effectiveness review (Myers et al., 2013) found by searching the Cochrane database for “Edinburgh Postnatal Depression Scale.”

Watson’s Theory of Caring

For articles about Jean Watson, the search terms “theory of caring” and “depression” were searched together in CINAHL. The specifier “English language only” was utilized, which yielded five articles. Three of these articles were not applicable. The first one dealt with compassion fatigue among oncology nurses (Stacey, Singh-Carlson, Odell, Reynolds, & Yuhua, 2016). The second did not discuss depression (Kim, Hayward, & Kang, 2013). The third looked at the development and presentation of the spiritual well-being model (Morris, 1996). The two remaining, applicable articles are discussed below (Delaney, Barrere, & Helming, 2011; Mullaney, 2010).

Group Interpersonal Psychotherapy

Randomized-Controlled Trials of Group IPT

Of the six articles reporting on RCTs, five were unique studies and all provided evidence to support the use of group IPT for the prevention of PPD (Crockett et al. 2008; Gao et al., 2012; Gao et al., 2010; Zlotnick et al. 2001; Zlotnick et al., 2006; Zlotnick et al., 2016). Two of the trials were pilot studies (Zlotnick et al. 2001; Crockett et al. 2008). As mentioned above, two articles reported on the same original study (Gao et al., 2012; Gao et al., 2010). The first of these two articles reported outcomes at six weeks

postpartum (Gao et al., 2010) and the other reported outcomes at three months postpartum (Gao et al., 2012). All the studies looked at PPD prevention using group IPT. Additionally, all recruited women in their second or third trimester and randomized the women to either the intervention group, which utilized group IPT, or the control group, which utilized treatment-as-usual.

Defining Treatment-as-Usual. Zlotnick et al. (2016) and Zlotnick et al. (2006) defined treatment-as-usual as “standard antenatal care” (p. 267; p. 1443). Zlotnick et al. (2001) defined treatment-as-usual as “standard medical attention and treatment” (p. 638). Gao et al. (2010) and Gao et al. (2012) provided detailed information about treatment-as-usual. It consisted of “routine care” (Gao et al., 2010, p. 1210) and “routine antenatal education” (Gao et al., 2010, p. 1210), which involved two 90-minute sessions conducted by midwives with content focused on delivery process and childcare. Gao et al. (2010) included a table that detailed what aspects of the delivery process and childcare were discussed. In the second report, Gao et al. (2012) described treatment-as-usual as “routine antenatal classes” (p. 276) and “routine childbirth education” (p. 276), which focused on providing information about labor and basic baby care skills with lecture and video as the main teaching methods. All women in the study received these sessions and the intervention group received additional IPT classes. Lastly, Crockett et al. (2008) defined treatment-as-usual as “standard medical attention and medical treatment” (p. 320) and “care-as-usual as well as educational pamphlets” (p. 320).

Screening for At-Risk Women. Gao et al. (2012) and Gao et al. (2010) did not screen for at-risk women to be included in the intervention; they included all consenting women who were of null parity, not older than 35, married and living with their husbands, and with the gestation age over 28 weeks. They excluded women with personal and/or family history that included psychiatric disorders or pregnancy complications. The other four studies used the Cooper Survey Questionnaire or a risk factor survey to screen for at-risk women to be included in the intervention group (Crockett et al. 2008; Zlotnick et al. 2001; Zlotnick et al., 2006; Zlotnick et al., 2016).

Synthesis of Results. In sum, all studies worked with pregnant women in their third trimester. Each trial had relatively small sample sizes, ranging from around 40 to 200 women. The total group time for the intervention ranged from three to six hours. The total number of group classes ranged from two to four classes. Three trials offered an individual, 50-minute, “booster” session within two weeks of delivery. The individual session allowed for more flexibility compared to another group session and was used to review prior learning. Lastly, Dr. Zlotnick was an author of four of the six study reports, which may or may not affect the generalizability of results. In psychopharmacology research, several reviews have shown that RCTS with industry funding are statistically associated with outcomes that favor the sponsor compared to non-industry-funded studies (Montgomery et al., 2004; Perlis et al., 2005). Zlotnick’s research was not industry funded, so her authorship may bear no significance on overall results. But, it is important to consider that bias could exist because she worked on four of the five trials reviewed.

Individual Summaries of Results. Zlotnick et al. (2001) performed a pilot study that randomized 37 pregnant women (20-32 weeks' gestation) into the intervention or control group. Seventeen women received the intervention and 18 women received treatment-as-usual. The intervention consisted of four, 60-minute, group sessions based on principles of IPT delivered over four weeks. Groups consisted of four to six women. The authors found that, among those receiving the intervention, rates of depression were significantly reduced ($P = 0.02$) at three months, as were symptoms of depression ($P = 0.001$), compared to those women in the control group. Symptoms of depression were scored using the Beck Depression Inventory (BDI).

Zlotnick et al. (2006) randomized 99 pregnant women (23-32 weeks' gestation) to the intervention ($n = 53$) or treatment-as-usual ($N = 46$). The intervention consisted of four, 60-minute, group sessions over a four-week period and an additional 50-minute, individual booster session after delivery. Each group consisted of three to five women. The authors found that the rate of diagnosable depression was significantly reduced at three months for those in the experimental group ($P = 0.04$) compared to control. No between-group significant differences were found in BDI scores at three months postpartum. In other words, the number of women diagnosed with depression via clinical interview was lower among those receiving the intervention, but the symptom rating scale (i.e., BDI) did not show a significant difference. The authors surmise that this could either be due to the fact that the intervention had no effect on the clinical outcome measures or because the cross-sectional measurements were not sensitive to changes within the three-month timeframe (Zlotnick et al., 2006).

Crockett et al. (2008) performed a pilot study that randomized 36 pregnant women (24-31 weeks' gestation) to the IPT intervention (N = 19) or treatment-as-usual (N = 17). The intervention consisted of four, 90-minute, group sessions over a four-week period with an additional, fifth, individual booster session within two weeks of delivery. While there was significant *within* group decreases in depressive symptomatology three months postpartum among those in the intervention group ($P < 0.009$) and not the control group, there were no significant differences found between groups at three months postpartum. The authors speculate that no significant between-group differences could be attributed to not having equal groups at the onset of treatment, a natural decrease in depression, or contamination of the treatment-as-usual group (Crockett et al., 2008).

Gao et al. (2010) and Gao et al. (2012) randomized 194 first-time pregnant women (>28 weeks' gestation) to the group IPT intervention (N = 96) or treatment-as-usual (N = 98). The intervention consisted of two, 90-minute, group sessions that were administered directly following a routine, antenatal, educational class that was part of usual care. The two group sessions were followed by one, telephone follow-up two weeks postpartum. Each group had 10 or fewer participants. Gao et al. (2010) found that, at six weeks postpartum, the IPT group had significantly better psychological well-being ($P = 0.001$), fewer depressive symptoms using the EPDS ($P < 0.001$), and better interpersonal relationships ($P = 0.001$) when compared to the control group. Gao et al. (2012) reported that the intervention group had significantly less depressive symptoms as measured by the EPDS ($P = 0.018$) when compared to the control group at three months postpartum. Additionally, Gao et al. (2012) reported that mothers in the intervention group had

significantly higher levels of social support ($P = 0.021$) and maternal role competence ($P = 0.016$) when compared to the control group at three months postpartum.

Lastly, Zlotnick et al. (2016) performed an RCT that randomized 205 pregnant women (20-35 weeks' gestation) to the IPT group ($N = 104$) or treatment-as-usual ($N = 101$). The intervention consisted of four, 90-minute, group sessions over a four-week period followed by a 50-minute, individual booster session within two weeks of delivery. The authors found that the intervention significantly reduced the rate of depression at six months postpartum when compared to those in the control group ($P < 0.05$). Therefore, the intervention was effective in preventing PPD as fewer women receiving group IPT went on to develop depression at six months postpartum.

Systematic Review for Preventing PPD

In a Cochrane systematic review, Dennis and Dowswell (2013) concluded that psychosocial and psychological interventions may help prevent PPD. Interventions that showed decreases in the number of women who developed PPD included interpersonal psychotherapy (IPT), intensive, professionally-based, postpartum home visits, and telephone-based peer support. Women who received one of these psychosocial or psychological interventions were significantly less likely to develop PPD compared to those receiving standard care (average RR 0.78, 95% CI 0.66 to 0.93; 20 trials, 14,727 women). Specifically, the authors reviewed literature on three types of psychological interventions: IPT, cognitive behavioral therapy, and debriefing. There were no statistically significant preventative effects at final study assessment for psychological debriefing or cognitive behavioral therapy. However, IPT did show a mean decrease in

depression scores at final study assessment across the five trials included in the review (standardized mean difference -0.27, 95% CI -0.52 to -0.01; 5 trials, 366 women). The authors reviewed three *group* IPT intervention studies (Gao et al., 2010; Zlotnick et al., 2001; Zlotnick et al., 2006) and two *individual* IPT interventions (Gorman, as cited in Dennis & Dowswell, 2013; Weidner et al., 2010). Based on Dennis and Dowswell's (2013) analysis of all published and unpublished RCTs comparing psychosocial or psychological interventions to usual-care, the authors conclude that IPT is one of three interventions that significantly reduce the number of women who develop PPD. The authors also summarized that, currently, there is no strong evidence to recommend the following interventions to prevent PPD: cognitive behavioral therapy, in-hospital psychological debriefing, antenatal and postnatal classes, postpartum lay-based home visits, early postpartum follow-up, and continuity-of-care models.

Screening for Postpartum Depression and the Edinburgh Postnatal Depression Scale

In a systematic review for the United States Preventative Services Task Force, O'Connor, Rossom, Henninger, Groom, and Burda (2016) reviewed the benefits and harms of depression screening and the accuracy of selected screening instruments for pregnant and postpartum women. In this systematic review, the investigators found that, among pregnant and postpartum women 18 years and older, six trials (n = 11,869) showed 18% to 59% relative reductions with screening programs, or 2.1% to 9.1% absolute reductions, in the risk of depression at follow-up (3-5 months) after participation in programs involving depression screening, with or without additional treatment

components, compared with usual-care. No harms of depression screening were identified in this review.

Edinburgh Postnatal Depression Scale

The EPDS was created and validated by Cox et al. (1987). It focuses on screening for psychological symptoms of depression compared to somatic symptoms (i.e., poor sleep, weight gain/loss) because somatic symptoms tend to be common among pregnant women regardless of depressive symptomatology (Cox et al., 1987). It is a 10-item Likert scale questionnaire; each response is coded from 0 to 3, with a maximum total score of 30. The cutoff points used to identify women at high risk for postpartum depression vary (Myers et al., 2013; Venkatesh, Kaimal, Castro, & Perlis, 2017). In a systematic review of validation studies of the EPDS during the antenatal period, optimal cutoff scores for major depression ranged from 5.5 to 14.5 (Kozinszky & Dudas, 2015). In this review, sensitivity varied between 64-100% and specificity varied between 73-100%. The authors concluded that it is not advisable to use universal cutoff scores across cultures, as there tend to be significant differences with validation studies across cultures. Shrestha et al. (2016) performed a systematic review of validated local language versions of the EPDS among women in low- and lower- and middle-income countries. Of the 19 articles found, findings were reported across 12 countries and 14 native languages. The authors concluded that most of the local language versions of EPDS had lower precision for identifying true cases of depression. With that said, the English language (original) EPDS has been used extensively to screen for depression with good results (Kaminsky & Dudas, 2015).

During the development of the tool, Cox et al. (1987) suggested a postpartum cutoff score of 9 or 10 for possible depression and 12 or 13 for probable depression. As a screening tool during pregnancy (i.e., antepartum), Murray and Cox (1990) suggest a cutoff point of 14 or 15 for probable depression. Guedeney et al. (2000) summarized the cutoff scores used in EPDS validation studies, finding a range between 9.5 and 12.5. Four studies used a score of 9.5, one study used 10.5, one study used 11.5, and four studies used 12.5. For purposes of this project, a cutoff score of 9 was used to identify the presence of mild to moderate symptoms of depression during the four-question risk survey at the eligibility screening.

The EPDS was selected for use because it is the most “widely known and used screening tool for postpartum depression” (Myers et al., 2013, p. 14). In a review done by the Agency for Healthcare Research and Quality (Myers et al., 2013), databases were searched for information on depression screening instruments during the first 12 months after delivery to establish efficacy and safety of screening for postpartum depression. Scanning for evidence published after 2004, which was the date of their last review, the authors found 11 studies that provided data on the EPDS, four on the Postpartum Depression Screening Scale, four on the Beck Depression Inventory, two on a “two-question” screen, and one each on the Patient Health Questionnaire-9, the Antenatal Risk Questionnaire, the 17- and 21-item Hamilton Rating Scale for Depression, and the Leverton Questionnaire. Across the 11 studies that utilized the EPDS, sensitivity and specificity estimates were in the 80-90% range for detecting postpartum depression (Myers et al., 2013). Few direct comparisons between screening instruments were found,

and the studies that directly compared instruments did not identify substantial differences. The authors concluded that there was indirect evidence that suggested the “receipt of appropriate services is much higher and depressive symptoms are substantially improved when screening, diagnosis, and treatment are provided by the same provider or practice” (Myers et al., 2013, p. 18). The only evidence regarding harms of screening was one study conducted in Hong Kong that showed that women randomly assigned to the screening group had significantly higher unscheduled doctor visits for their infants up to six months compared to the control group of no screening, which instead received a clinical interview—but this difference was not significant in the 6-12-month period (Leung et al., 2010).

Gibson et al. (2009) completed a systematic review of studies validating the EPDS in antepartum and postpartum women. They searched for evidence published between 1987 and July, 2008, finding 37 studies that met inclusion criteria. This study updated a study by Eberhard-Gran et al. (2001) that found sensitivity and specificity estimates to be 65-100% and 49-100% respectively, with wide confidence intervals. According to Gibson et al. (2009), sensitivity and specificity of cutoff points continued to show “marked heterogeneity” (p. 350). At a diagnostic threshold of 9 or 10 on the EPDS, specificity ranged from 44-97% and sensitivity ranged from 60-100%. At a cutoff score of 12 and 13, the sensitivity for postnatal depression ranged from 34-100% and specificity from 49-100%. During the antepartum period, three studies used a cutoff point of 14 or 15, and the sensitivity for major depression ranged from 57-100% and specificity from 93-99%. The authors also identified positive and negative predictive values. A

positive predictive value (PPV) is the proportion of people scoring positive in a test who actually have the disorder and a negative predictive value (NPV) is the proportion of people scoring negative in a test who actually do not have the disorder (Gibson et al., 2009). PPVs ranged from 9-100% for depression, depending on the cutoff score used; lower percentages were generally found with lower cutoff scores. NPVs ranged from 47-100%; higher percentages were generally found with lower cutoff scores. This data suggests that the clinician can be more confident with the results of a negative test than a positive test. Therefore, it is necessary to determine whether the provider is using the EPDS to rule in cases in PPD, or rule out women who do not have the disorder. Depending on the purpose then, the most useful EPDF cutoff point can be selected (Jason et al., 2009).

The authors gave several explanations for the wide range of values summarized in their review (Gibson et al., 2009). Methods and populations varied greatly between studies, different diagnostic interviews and criteria were used, and screening was performed at various times in antepartum and postpartum periods. The authors conclude that the EPDS may not be an equally valid screening tool across all settings and contexts, though it does remain a useful tool in the field of perinatal mental health (Gibson et al., 2009). Gibson et al. (2009) summarize the pros and cons of its use:

At present, when the EPDS is used in the general population it will generate a substantial proportion of false positives, which is costly to service providers in terms of further assessment. In addition, it will miss a considerable number of cases. However, the majority of screening tools suffer from the same difficulties. It should be noted that such tools are designed to indicate the possibility of illness. A clinical assessment is required to make a definitive diagnosis. It is also the case that clinical assessment carries a higher cost. The utility of the EPDS rests in its free

availability, ease of administration, and general acceptability to women, if given sympathetically. Therefore, in the above caveats are observed, this remains a useful tool in the field of perinatal mental health (p. 361).

All of this information and data should be taken together to inform the reader that more work needs to be done around research for perinatal depression screening tools and methods. The wide variety of findings limits the ability to synthesize literature for clear recommendations. Despite this limitation, because the EPDS is the most frequently used depression screening tool during the perinatal period, and because it has established psychometric properties, this was the tool chosen to screen for depressive symptoms during this project.

Clinically Significant Changes in EPDS Scores

Matthey (2004) used the reliable change index as a method of calculating clinically significant changes in EPDS scores. The reliable change index was calculated to be four points. This result indicates the size of difference needed between two scores for a clinician to be 95% confident that the change reflects a real change in the individual's mood and is not likely to be due to measurement error. Based on this calculation, an increase in four or more points indicates worsening depression and a decrease in four or more points indicates improvement. However, a decrease in four points does not necessarily indicate that the individual has recovered from depression. For example, if the EPDS score was initially 20 and, at follow-up, was 13—the cutoff for major depression according to Cox et al. (1987)—then the depression is improved, but not yet recovered.

Conceptual Framework

The theory of human caring (Watson, 2008), also known as the theory of transpersonal caring (Masters, 2015), was utilized to guide this project. The two articles found via the search methods discussed above are described here. Mullaney (2000) performed a phenomenological study to describe the experiences of depressed women entering therapy with a nurse trained in the theory of human caring (Watson, 1985). Five essential themes emerged from the data analysis, each reflecting different *caritas* processes, or *carative* factors, as they were called at the time of publication (Mullaney, 2010). All 11 participants stated that the nurse's application of Watson's (1985) theory caused them to persist in treatment and adopt health-seeking behaviors (Mullaney, 2010). Important to the process was experiencing an actual caring occasion within the transpersonal caring relationship, which begins when the nurse "enters the phenomenal field of the client, detects the client's condition of 'being,' and feels it within his/her own self-system" (Mullaney, 2010, p. 131). In conclusion, Watson's (2008) theory aided in the healing process of women suffering from depression.

Delaney et al. (2011) monitored depression scores before and after implementing the spirituality-based intervention grounded in Watson's (2008) theory of transpersonal caring. The study explored the influence of a caring-healing intervention among community-dwelling adults with cardiovascular disease and found that patients who participated in the one-month intervention demonstrated a significant increase in overall quality of life and a trend towards lower depression scores, but this was not significant. Quantitative and qualitative data from this small pilot study support Watson's (2008)

theoretical “assertions that mindfulness meditations enhance health outcomes” (Delaney et al., 2011, p. 30). While this doctoral candidate’s project is not formally utilizing the caritas process focused on spirituality, this article does show the successful implementation and feasibility of a Watson-grounded intervention.

CHAPTER THREE

METHODS

Introduction

The purpose of this project was to (a) translate current best evidence into practice, (b) design and implement an IPT group intervention to prevent PPD at one Colorado OB/GYN clinic, and (c) evaluate the impact of the intervention based on the Edinburgh Postnatal Depression Scale (EPDS) scores at the beginning of the project and at six weeks postpartum. This chapter will discuss the methodology of the project, which includes the project's design, population and sample, procedures for implementation and data collection, instrumentation that was utilized, and expected procedures for data analysis. Additionally, the doctoral candidate will discuss the importance of protecting the human rights of the subjects, including the measures utilized to ensure the subject's rights were protected.

Design Overview

A nonrandomized, one-group, before-and-after design method was employed for this project. The DNP project was quasi-experimental, which is defined as a research design that utilizes an intervention in which subjects are not randomly assigned to treatment conditions (Polit & Beck, 2012). A before-and-after design is utilized when data is collected from subjects both before and after the introduction of an intervention (Polit & Beck, 2012).

Setting and Sample Population

The organizational setting for this scholarly project was a for-profit, OB/GYN physician practice located adjacent to the birth and surgical centers of a Colorado hospital. This practice provides comprehensive OB/GYN services to include pregnancy, adolescent and adult gynecology, and menopause. There are four OB/GYN medical doctors and one nurse practitioner who specializes in gynecology. Since the nurse practitioner does not see women for obstetrics, her patients were not offered the intervention. The staff is dedicated to women's health and their "time, energy, and expertise are devoted to concerns unique to women from adolescence through the senior years" (Associates in Women's Care, n.d.). About one-third of the appointments at this clinic are related to obstetrics and the other two-thirds are related to gynecology (C. Ryan, personal communication, April 18, 2017). For payments, the clinic accepts private insurance and TRICARE. TRICARE (2017) is the health care plan for uniformed service members (i.e., United States military) and their families. A variety of ages are seen at this clinic ranging from prepubescent to older adults.

Protection of Human Subjects

After submitting the study plan for this project, the Institutional Review Board (IRB) at Montana State University Bozeman (MSU) reviewed the project under an expedited review. The consent form was approved and permission was given to move forward with the project. Secondly, the project idea was presented to the Catholic Health Initiatives Institute for Research and Innovation Institutional Review Board

(CHIRB), which oversees research and improvement projects done at this OB/GYN clinic. Appropriate paperwork was completed and CHIRB cleared the study for implementation, ceding to MSU's IRB.

Procedures

At check-in, all women between 23-32 weeks' gestation arriving for an appointment were screened by the doctoral candidate. Twenty-three to 32 weeks' gestation was selected as an eligibility requirement because that was the protocol utilized by Zlotnick et al. (2006), and because it fit the patient population at this OB/GYN clinic. Eligible women were then informed of the study and informed consent was provided. Women then completed a survey that assessed for risk factors of developing postpartum depression. This was not a standardized survey, but rather a compilation of risk factors found in the literature. Risk factors were the same as those identified and used by Zlotnick et al. (2001) in their pilot study. The risk factors were: (1) previous episode of depression or postpartum depression, (2) mild to moderate levels of depressive symptoms, (3) poor social support, or (4) a significant life stressor within the last six months (i.e., divorce, family move, loss of friend or family member). Mild to moderate levels of depressive symptoms will be determined by a score of 9 or higher on the EPDS, the cutoff point for probable depression established by Cox, Holden, and Sagovsky (1987). Women who reported at least one risk factor of postpartum depression were invited to participate in the group intervention. The Cooper Survey Questionnaire (Cooper, Murray, Hooper, & West, 1996) was initially intended to be used to screen for

risk factors of PPD and eligibility for the project, but the rapid clinic pace coupled with the wordiness and length of the questionnaire made it not ideal for use. A request for modification of the study protocol was submitted to MSU's IRB and approved. See Appendix D for a copy of the Cooper Survey Questionnaire (permission to use obtained from author).

The group intervention was based on the principles of IPT, which was first developed in the 1970s for the treatment of unipolar nonpsychotic depression in adults (Klerman, Weissman, Rounsaville, & Chevron, 1984). It is a manualized, time-limited, symptom-focused form of talk therapy (Weissman, Markowitz, & Klerman, 2007). The intervention was adapted from the methods described by Crockett et al. (2008), Gao et al. (2012), Gao et al. (2010), Zlotnick et al. (2001), Zlotnick et al. (2006), and Zlotnick et al. (2016). The intervention involved four, 60-minute, group sessions over a four-week period. The first session included rationale for the intervention, psychoeducation about “baby blues” and postpartum depression, and began a discussion of role transitions. Demographic information was also collected during the first session. The second session focused on identifying role transitions, changes associated with role transitions, and goals for successfully managing role transitions. The third session focused on setting goals, developing supports, and identifying potential interpersonal conflicts, especially once the baby is born. In the fourth session, skills were taught for resolving interpersonal conflict and major IPT concepts were reviewed. All sessions were conducted by the DNP student, a registered nurse who holds a master-level counseling degree with training in IPT. At the conclusion of the fourth session, the women were asked to fill out a satisfaction survey.

At six weeks postpartum, women from the intervention were asked to complete the EPDS again.

Measures

The EPDS is a validated, 10-item, self-report instrument used to assess for the presence of depressive symptoms in the postnatal period (Cox et al., 1987). In a sample of 84 postpartum women, Cox et al. (1987) reported the split-half reliability to be 0.88 and the standardized alpha coefficients to be 0.87 (internal consistency) for the EPDS. This screening tool has been found to be reliable, easy for clinicians to score, and predictive of a clinical diagnosis of PPD (Boyce, Stubbs, & Todd, 1993; Cox et al., 1987; Epperson, 1999; Fergerson, Jamieson, & Lindsay, 2002; Georgiopoulos, Bryan, Wollan, & Yawn, 2001; Morris-Rush, Freda, & Bernstein, 2005). The EPDS has also been found to be acceptable to patients and takes 10 minutes or less to complete (Fergerson et al., 2002). See Appendix C for a copy of the scale.

The nursing outcomes classification (NOC) measure “Client Satisfaction: Psychological Care” (Moorhead, Johnson, Maas, & Swanson, 2013, p. 151) was administered during the final group session. The fifth edition of the NOC contains 490 outcomes that assist nurses to “evaluate and quantify the status of the patient, caregiver, family, or community” (Moorehead et al., 2013, p. vi). The outcomes represent over 20 years of work by the Iowa Outcomes team and offer standardized nursing-sensitive patient outcomes for use in practice, education, and research. This client-satisfaction survey measures how well nurses address mental health needs of patients. It identifies the

patient's perception of "nursing assistance to cope with emotional issues and perform mental activities" (Moorehead et al., 2013, p.151). More specifically, it looks for the extent of positive perception of the nurse's ability to (1) provide information about illness/disease, (2) provide emotional support and counseling, (3) provide assistance identifying support groups and finding counseling services, (4) provide support for the expression of feelings, (5) provide help with identifying ways to cope with stress and functional changes and, lastly, (6) address the client's spiritual needs.

This satisfaction survey (Moorehead et al., 2013) aligned particularly well with the theoretical framework of this project. It *indirectly* evaluated the nurse's use of Watson's (2008) caritas processes two, five, and seven because of its focus on the therapeutic relationship. Watson, Brewer, and D'Alfonso (2010) have also developed a reliable and validated instrument for *directly* measuring the 10 Caritas Processes®. Use of this instrument required publication with statistical significance and, therefore, it was not utilized due to the translational nature of this project.

Data Analysis

For this project, data was analyzed using descriptive statistics. All women were assigned a number and data analysis used de-identified information only. A t-test was planned to be used to ascertain if differences existed between mean EPDS scores pre-intervention and post-intervention. Patient-satisfaction questions were in place based on the following Likert scale options: "not at all satisfied," "somewhat satisfied," "moderately satisfied," "very satisfied," and "completely satisfied."

CHAPTER FOUR

RESULTS

Introduction

Postpartum depression (PPD) has a wide range of negative effects on women's psychological and social functioning, as well as her family's. Antepartum group interventions that utilize interpersonal psychotherapy (IPT) can significantly reduce the number of women who develop PPD (Dennis & Doswell, 2013). Unfortunately, many obstetrician-gynecologist (OB/GYN) clinics do not utilize collaborative-care models that address such mental health needs (LaRocco-Cockburn et al., 2013). Therefore, this project attempted to use a collaborative approach to target pregnant women at risk for developing PPD. The purpose of this project was to (a) translate current best evidence into practice, (b) design and implement an IPT group intervention at one Colorado OB/GYN clinic, and (c) evaluate the impact of the intervention based on the Edinburgh Postnatal Depression Scale (EPDS) scores at the beginning of the project and at six weeks postpartum.

Purpose (A) Translate Current Best Evidence into Practice

Interest in this project was originally piqued by reviewing Cochrane systematic reviews. This database was searched for keywords of interest (e.g., depression, anxiety, mental health) and abstracts were read. Because prevention of mental health has been a worldwide priority (World Health Organization, 2002), reviews that focused on

prevention instead of treatment were of greater interest. Moran, Burson, and Conrad (2014) recommend considering personal practice interests and expertise when contemplating a scholarly project idea. With this in mind, one review article (Dennis & Doswell, 2013) that discussed a group-therapy format utilizing IPT to prevent PPD was found. This intervention was attractive and reasonable for a project idea because this student has a master's degree in community counseling and has led a variety of groups. Because psychiatric nurse practitioners also provide psychotherapy, and therapy hours are required during clinical rotations, this intervention seemed to blend the expertise of both professions well. Therefore, a thorough review of the literature was conducted to discover the best evidence for preventing postpartum depression.

Best Evidence

To become familiar with the evidence, a literature search was conducted for all randomized-controlled trials (RCTs) that contained variations of the keywords prevention, interpersonal psychotherapy, and postpartum depression. This process was described in detail in Chapter Two. The search ultimately yielded five unique RCTs and six publications. An evidence table was created; Table 1 displays the results. Based on this review, it was deemed that IPT group therapy could be implemented at an OB/GYN clinic and had potential to be beneficial for patients. All RCTs documented positive outcomes compared to control groups. Additionally, Dennis and Dowswell (2013) conducted a meta-analysis on IPT (both group and individual formats), finding a statistically significant reduction in the development of PPD compared to treatment-as-usual. Other interventions that had statistically significant, positive impacts on the

prevention of PPD were the provision of intensive, individualized, postpartum home visits provided by public health nurses or midwives and lay (peer)-based telephone support (Dennis & Dowswell, 2013). Interventions that showed no statistically significant, preventative effects on depressive symptomatology were antenatal and postnatal classes (four trials, n = 1488), postpartum, lay-based home visits (one trial, n = 493), early postpartum follow-up (one trial, n = 446), continuity-of-care models (three trials, n = 7021), in-hospital psychological debriefing (five trials, n = 3050), and cognitive behavioral therapy (one trial, n = 150). Because of the familiarity with psychotherapy and the efficiency of a group compared to individual therapy, group IPT was chosen as the intervention for this project.

Table 1. Summary of Evidence for Group IPT to Prevent PPD

Author/Year	Study Design	Purpose	Screening	Methods/Sample	Control	Experimental	Findings
Zlotnick et al., 2016	Randomized -Controlled Trial	PPD Prevention	Cooper survey questionnaire (First et al., 2002)	205 Pregnant women (20-35 weeks) randomized to IPT group (n=104) or treatment-as-usual (n=101)	“Standard antenatal care alone”	Four 90-minute group sessions over a four-week period and a 50-minute individual booster session within two weeks of delivery	Reduced depression rate at 6 months postpartum in experimental group (p<.05)

Table 1. Summary of Evidence for Group IPT to Prevent PPD, Continued

Zlotnick et al., 2006	RCT	PPD Prevention	Cooper survey questionnaire (Cooper et al., 1996)	99 Pregnant women (23-32 weeks) randomized to IPT group (n=53) or treatment-as-usual (n=46)	“Standard antenatal care”	Four 60-minute group sessions with 3-5 women over a four-week period and a 50-minute individual booster session after delivery	Reduced depression rate at three months in experimental group (p=0.04); No significant difference in BDI score at 3 months between groups
Zlotnick et al., 2001	RCT; Pilot Study	PPD Prevention	Risk factor survey	37 pregnant women (20-32 weeks) randomized to IPT group (n=17) or treatment-as-usual (n=18)	“Standard medical attention and treatment”	Four 60-minute group sessions with 4-6 women over a four-week period	Reduced depression rate at three months in experimental group (p=0.02). Reduction in BDI scores in experimental group at 3 months (p=0.001)
Gao et al., 2010	RCT	PPD Prevention	None	194 first-time pregnant women (>28 weeks) randomized to IPT group (n=96) or treatment-as-usual (98)	“Routine antenatal education” “Routine care” Two 90-minute sessions conducted by midwives with content focused on delivery process and childcare	Two 2-hour IPT group sessions (10 or fewer participants) and one telephone follow up two weeks postpartum	IPT group had significantly better psychological well-being (p=0.001), fewer depressive symptoms using the EPDS (p<0.001), and better interpersonal relationships (p=0.001) at six weeks postpartum. No significant difference was found between groups for the number of women scoring > or = to 13 on the EPDS at six weeks postpartum.

Table 1. Summary of Evidence for Group IPT to Prevent PPD, Continued

Gao et al., 2012	RCT	PPD Prevention	None	194 first-time pregnant women (>28 weeks) randomized to IPT group (n=96) or treatment-as-usual (n=98)	“Routine antenatal education” “Routine care” Two 90-minute sessions conducted by midwives with content focused on delivery process and childcare (Table 1)	Two 2-hour IPT group sessions (10 or fewer participants) and one telephone follow up two weeks postpartum	At three months postpartum the intervention group had higher levels of social support (p=0.021), maternal role competence (p=0.016), and less depressive symptoms as measured by the EPDS (p=0.018)
Crockett et al., 2008	RCT, Pilot Study	PPD Prevention	Cooper survey questionnaire (Cooper et al., 1996)	36 pregnant African-American women (24-31 weeks) randomized to IPT group (n=19) or treatment-as-usual (n=17)	“Standard medical attention and medical treatment” and “Care-as-usual as well as educational pamphlets”	Four 90-minute group sessions over a four-week period and a 50-minute individual booster session within two weeks of delivery	Significant within group decrease in depressive symptoms in IPT group at three months postpartum (p<0.009). No change within control group. No significant difference was found between groups for depressive symptoms three months postpartum.

Choosing a Theoretical Framework

While taking one of the courses in the DNP plan of study, nursing theories were reviewed and considered for their appropriateness of fit to guide project implementation. Bonnel and Smith (2014) explain the theories and frameworks serve as an organizing resource to guide clinical projects. Zaccagnini and White (2014) describe that theories "provide the base from which we seek to understand patients and their health problems

and from which we plan interventions to help them" (p. 13). Utilizing theory in the scholarly project creates more structure and unity and provides more efficient continuity of care (Zaccagnini & White, 2014). Understanding the importance of a guiding theory, graduate nursing students were encouraged to choose a theory that best reflected personal values and beliefs (Zaccagnini & White, 2014), as well as one that represented the real situations that would be encountered during the project (Bonnel & Smith, 2014). Watson's (2008) Theory of Caring emerged from this semester-long study as the resounding winner for its nearly perfect alignment with personal values and remarkable ability to match the design and style of the intervention.

Selection of the Measurement Tool

One of the committee members was deemed to be an expert in the field of treating mental health in an OB/GYN arena. She was involved in a collaborative-care model at a clinic in Montana where she spent one morning a week providing psychological treatment for OB/GYN patients. She was embedded in the OB/GYN clinic during these visits and would see patients simultaneously with a licensed clinical social worker to coordinate care further. This nurse practitioner monitored levels of depression using the EPDS and had favorable attitudes toward it. Based on her recommendation, the EPDS was considered for use in this project and a literature review was conducted to learn more about it and similar screening options. This process ultimately led to the selection and use of the EPDS, a tool that worked well at the selected Colorado OB/GYN clinic.

Purpose (B) Design and Implement an IPT Group
Intervention at One Colorado OB/GYN Clinic

The design of the intervention was based on the format used in the RCTs displayed in Table 1. All of these studies worked with women in their third trimester, with slight variations on weeks' gestation. To keep fidelity with previous studies, only women who were in their third trimester (or about to enter at 23 weeks' gestation) were recruited. The RCTs compiled for the evidence table offered either two or four group sessions total and ran each group session for either 60 or 90 minutes. After talking to staff at the clinic during an informational meeting, and the committee members during the proposal defense, combined with personal experience from running other groups, it was decided to offer four 60-minute groups.

Choosing a Clinic

This Colorado OB/GYN clinic was selected because of a personal contact who was willing to help coordinate the project implementation. The clinic was also conveniently located and had a large population so that enough women could be recruited for the intervention. Having a local contact at a clinic paved the way for this project's completion; without it, it would have been impossible. Many roadblocks were encountered during earlier attempts to secure key stakeholders and sites of implementation. Utilizing someone who knew and trusted the graduate student was invaluable. The provider was able to sell the idea to her coworkers and coordinate informational meetings with the staff. The provider coordinated with the clinic administrator and helped schedule the dates for subject recruitment. She also took time to

survey the providers' schedules and identify women between 23-32 weeks' gestation. She then created a list of eligible patients, which was used to coordinate activities with the front desk.

Clinical Setting

This Colorado OB/GYN clinic staffs five providers. One of these providers is a nurse practitioner who only sees gynecological appointments; therefore none of her patients were recruited for the intervention. The other four providers agreed to the intervention and their patients were screened for eligibility. During the intervention, the clinic saw women only, from adolescence to older adulthood. All of the clinic's patients presented for scheduled gynecological or obstetrical appointments and had private insurance or TRICARE.

The clinic is located on the second floor of a multi-specialty, outpatient building connected by walkways to a larger hospital. The physicians at the clinic have admitting privileges at the hospital, and this is the hospital where the clinic's clientele generally give birth. The clinic entrance offers a warm and inviting atmosphere and is delicately decorated with flowers, other plants, and tasteful art. Women are greeted upon entry by a female front office member at the "check-in" end of the front desk. They print their names on a clipboard (i.e., sign-in) and are asked a few questions and/or given paperwork to complete prior to their visit. This check-in moment offered the ideal opportunity for the DNP candidate to become familiar with the clients and introduce them to the project. A list of eligible women (i.e., those between 23 and 32 weeks' gestation) was provided to

the front staff member so she knew which patients were being targeted for the intervention and could communicate accordingly.

Purpose (C) Evaluate the Impact of the
Intervention Based on EPDS Scores

Participant Recruitment and Pre-intervention Procedure

After the front desk member checked-in the patient, she generally utilized body language and eye contact to signal that the patient was ready to be introduced to the project. Standing to the right of the staff member, the DNP candidate then introduced herself to the patient and invited the patient to step further down the desk for more privacy. The front desk was large, around 20 feet long, with check-in at one end and check-out at the other. The middle area of the desk was relatively open and unused, a space that allowed for more privacy. After shifting towards the middle, the nature of the study was explained and women were asked if they were interested in participating, and if they would answer a few questions to see if they were eligible. Women were informed of the risk and benefits of the project and the IRB consent form was reviewed and signed by interested patients. Interested patients also provided their phone numbers and email addresses, giving permission to be contacted in this way about the project and to receive reminder emails.

A total of two days was spent recruiting women at this clinic. These two days were selected because they worked around the student's work schedule, her husband's military schedule, and the upcoming vacation of the physician who was a key stakeholder in the process. Two days was also judged to be an adequate amount of time because only

one group needed to be formed for the intervention, composed of 2-5 women. Over the course of these two days, there were 25 completed obstetric appointments. Some appointments were rescheduled on the first day because one of the providers needed to perform an emergency cesarean section. Of those 25 appointments, seven women were between 23 and 32 weeks' gestation and eligible for the intervention. These women were approached about the project. Of those seven women, five had one or more risk factors for PPD, as noted on the four-question risk survey. The risk survey was conducted verbally with the DNP candidate pointing at each item on a clipboard. The EPDS, which was used to determine the presence of one of the risk factors (i.e., mild to moderate levels of depressive symptoms), was also on the clipboard. The risk survey was reviewed first, then the EPDS was introduced. That EPDS was completed using a combination of letting the patient read the questions or verbally asking and showing the patient. If the patient scored a 9 or higher on the EPDS, they were considered to have a positive risk factor for depressive symptoms.

The two women who did not have any risk factors for postpartum depression were encouraged to seek help from the clinic and outside mental health providers if they developed symptoms of depression later on, which were reviewed using the EPDS. These women were also not interested in the intervention when they saw they had no risk factors for depression. Additionally, these women appeared relieved and seemed more focused on other matters, which was different from the other five women who appeared more anxious and interested in help.

If women were called back to their appointment while discussing the project, the conversation continued privately in the patient's room after their vital signs were taken by the nurse. This situation happened twice, which led to the recruitment process changing slightly for the next patient because she had already signed in and was sitting in the waiting room. If this was the case, the patient was approached in the waiting room and invited to a relatively private area of the room to discuss the project.

The five women who identified one or more risk factors were invited to participate in the study. One woman who had a previous episode of PPD declined the intervention because of logistical issues related to caring for her other children. Considering accommodations for children may be an important component of future endeavors. The four remaining subjects consented to the intervention and were placed in a group that met on Monday mornings for one hour (10 a.m. to 11 a.m.), for a total of four weeks. Monday, at 10 a.m., was chosen because it was most conducive to the DNP candidate's work and school schedule. It was also an available time at a nearby counseling office, which had a group counseling room available for rent. This office was chosen as the location of the group intervention because the OB/GYN clinic had no available group rooms. It was a clinic of only private (smaller) offices and a small kitchen. The clinic's conference table was in an open area behind the front desk, with no privacy. The selected counseling office was located 10 minutes from the OB/GYN office and had ample parking. Women were provided with pictures of the location and room, and the address so they could easily locate it for the group sessions. The group room was

tastefully decorated with art and had plush chairs and couches, creating a relaxing and safe environment, ideal for therapy sessions.

Demographic Information

Demographic information was gathered in the first session. Since only two of the four women attended the initial session, there is limited demographic information. Of these two women, one was Latina and the other was Caucasian. Both were between 25 and 30 years old. Both were married. Both were having their first child, and it was their first pregnancy. In hindsight, it would have been better to gather demographic information at recruitment as this rich information could lead to further analysis and understanding.

The Intervention

The intervention began the week following enrollment and only two of the initial four women attended the first group. One woman dropped out because of a sudden military move, which she had mentioned as a possibility on the initial recruitment day. Another dropped out for unknown reasons. She was contacted several times, but never responded. Attendance at the group was variable. One woman attended three of the four sessions; jury duty prevented her from attending the third session. The other woman attended one of the four sessions; other medical appointments prevented her from attending the others. Only the first group had two participants, which means only the first session was truly a group format, and the remainder sessions were individual sessions.

First Session. Two women attended the first group session, making it a group therapy session. The remaining sessions were only individual sessions with only one woman in attendance. During this first group, rationale for the program and psychoeducation about baby blues and PPD was provided. Signs, symptoms, and etiology of PPD were taught. The women identified role transitions that they may experience with the birth of a baby, such as the transition to motherhood or to stop working. Changes associated with role transitions were identified. The session ended with a generalized review of human emotions, both positive and negative.

Second Session. Only one woman attended the second session. During this session, role transitions were reviewed and lists of positive and negative emotions related to transitions were elicited. Goals for successfully managing role transitions were identified. Ways for managing and coping with subsequent stress, such as using exercise to decrease stress, were discussed. Sources of social support were identified and the importance of the social support system was emphasized. Communication techniques were reviewed and potential sources of interpersonal conflict were identified. Strategies for building up good interpersonal relationships with significant others were discussed and goals were set for managing interpersonal conflict and establishing a social support network.

Third Session. No one attended the third session and information that was going to be presented during this session was tagged for discussion during the fourth and final session.

Final Session. The final session was held during the fourth week of the intervention and one woman attended this session. In this session, the importance of social support was reviewed and learning skills to resolve interpersonal conflict were discussed. Strategies to manage marriage and other relationships (e.g., mother-in-law) after the baby is born were discussed. Strategies to establish and maintain good relationships and self-care techniques were reviewed. Role transitions were reviewed again, as were symptoms of depression. Available resources for mental health care were discussed, to include self-help books, smart phone applications, and contact information for community mental health providers. The attendee was encouraged to keep a keen eye on her symptoms and communicate regularly with her OB provider about her mood.

Use of Theoretical Framework

Watson's (2008) Theory of Caring was applied throughout the intervention and guided the nurse-patient interactions and healthcare delivery. Establishing the therapeutic relationship became a key focus. The graduate nursing student was authentically present with everyone she interacted with, including staff members, patients, and IRB personnel. The subjective life view and belief systems of the patients were respected. Positive and negative emotions were explored and empathized with. Conversation was warm, inviting, and nonjudgmental. A genuine teaching-learning experience was created through the implementation of interpersonal psychotherapy techniques during all three sessions. The women learned about postpartum depression, their feelings, role transitions, communication skills, and conflict resolution skills. In sum, Watson's theory provided an excellent framework for the implementation of this intervention.

Modification of the Intervention

During the project, two modifications were made. The Cooper Survey Questionnaire (Cooper et al., 1996) was not used during recruitment as originally specified in the proposal and protocol. Instead, a four-question risk survey was utilized. The risk survey asked about having a previous episode of depression or postpartum depression, mild to moderate levels of depressive symptoms, poor social support, or having a significant life stressor within the last six months. The decision was made to utilize this survey inside of the Cooper Survey Questionnaire because the four-question survey with the EPDS took considerably less time to complete. At an observational visit to the OB/GYN clinic, it was deemed that there was very limited time to interact with each patient prior to being seen by the provider. Therefore, a faster method for screening needed to be implemented to minimize disruption in clinic flow. The method chosen was the same as that used in the pilot study of group IPT for preventing PPD by Zlotnick et al. (2001). This change was submitted to the MSU IRB and approved. The second change involved the content discussed in session four. Because no one attended session three, session four contained a combination of material intended for sessions three and four. This change was made out of necessity, yet was also supported by literature. The RCTs included in the evidence table covered the same IPT material across all studies, but varied in the number of groups they offered. Some studies offered the material consolidated into two group sessions, and others offered it across four sessions. Therefore, offering a total of three sessions was still within the boundaries of the researched intervention.

Data Analysis

Pre-intervention EPDS Scores. Pre-intervention, the mean EPDS score was 10 for the four women who consented to the intervention. The highest possible score is a 30 and higher scores indicate worsening symptoms. A score of 9 or higher is the cutoff point for probable depression established by Cox et al. (1987). All four women denied a currently diagnosed episode of depression and current treatment. The most frequent risk factor identified was history of depression or PPD, which was identified by all five women. EPDS scores and number of risk factors are summarized in Table 2 and Table 3.

Table 2. Descriptive Data for Pre-intervention Edinburgh Postnatal Depression Scale

Edinburgh Postnatal Depression Scale	
Sample size (n)	4
Possible range of scores	0-30
Actual range of scores	9-12
Mean score	10

Table 3. EPDS Scores and Number of Risk Factors

EPDS Score Pre-intervention	Number of Risk Factors (RF)	Able to Attend Group
9	3	YES
9	3	YES
10	4	YES
12	4	YES
2	1	NO

Post-Intervention EPDS Scores. Post intervention, only one of the possible two EPDS scores was captured: the woman who initially scored a 12 pre-intervention, scored a 4 six-weeks postpartum. The second attendee was contacted three times for follow-up, but did not respond and, therefore, was lost to follow-up. Table 4 summarizes the EPDS

scores. It appears that the intervention may have been helpful for the woman who participated in three of the four sessions. For this participant, the change in score from 12 to 4 indicates a clinically significant improvement according to the reliable change index calculated by Matthey (2004). Data was not collected on the two women who attended zero sessions. In hindsight, this data could have been collected and would have been helpful in comparing scores of the intervention to treatment-as-usual. Navigating a last-minute military move at the conclusion of the intervention may have contributed to this oversight.

Table 4. Attendance and Score on Edinburgh Postnatal Depression Scale

Number of groups attended	Pre-intervention score	Post-intervention score
1 of 4	9	---
3 of 4	12	4
0 of 4	9	---
0 of 4	10	---

Inquiry Question and Treatment-as-Usual in the Literature. The inquiry question that guided this project was “Among pregnant women in the third trimester at risk for developing PPD, does group IPT compared to treatment-as-usual decrease symptoms of PPD as evidenced by scores on the EPDS?” This comparison was made by comparing the project results to the literature. In the literature, treatment-as-usual (TAU) does not generally yield improvements in EPDS scores compared to group IPT interventions. Gao et al. (2012) found that while the IPT intervention group had significant within-group improvements in their mean EPDS score, the control group had worsening EPDS scores (indicated by higher scores). The control group received routine antenatal classes which

included content on breast feeding, infant care, labor process, ways to manage labor pain, antenatal care, and postnatal care. The intervention group also attended this same class and then continued afterwards to a second class utilizing the IPT program. Similarly, Crockett et al. (2008) found no improvement in depressive symptoms across time for the TAU control group using the EPDS. Lastly, in the study by Zlotnik et al. (2016), 31% of the TAU control participants had developed PPD by six months post-delivery, compared to 16% for the intervention group. This was a statistically significant difference at $p = 0.041$. In regard to this project's inquiry question, the proceeding studies provide a framework for comparing the current project's intervention to TAU. It is noted that the current project yielded an improvement in the EPDS score for the one woman who completed the intervention, when often times TAU does not yield an improvement (Gao et al, 2012; Crockett et al., 2008). Unfortunately, several did not complete the intervention.

Results of Satisfaction Survey

One woman attended the last session, which was the session when the patient-satisfaction survey was distributed and completed. Therefore, only one patient completed the satisfaction survey. Table 5 displays the results. Overall, this client was completely satisfied with the intervention.

Table 5. Results from the Patient Satisfaction Survey

Overall Outcome Rating	Not at All Satisfied	Somewhat Satisfied	Moderately Satisfied	Very Satisfied	Completely Satisfied	
1. Information provided about course of illness	1	2	3	4	<u>5</u>	N/A
2. Information provided about expected improvement	1	2	3	4	<u>5</u>	N/A

Table 5. Results from the Patient Satisfaction Survey, Continued

3. Information provided about usual emotional response to disease	1	2	3	4	<u>5</u>	N/A
4. Information provided about usual emotional responses to treatment regimen	1	2	3	4	<u>5</u>	N/A
5. Assistance with identifying community support groups for client	1	2	3	4	<u>5</u>	N/A
6. Assistance with identifying community support groups for family	1	2	3	4	5	<u>N/A</u>
7. Discussion of strategies to cope with mental impairments	1	2	3	4	<u>5</u>	N/A
8. Emotional support provided	1	2	3	4	<u>5</u>	N/A
9. Counseling provided to improve mental functioning	1	2	3	4	<u>5</u>	N/A
10. Counseling provided to improve emotional stability	1	2	3	4	<u>5</u>	N/A
11. Counseling provided to improve social interactions	1	2	3	4	<u>5</u>	N/A
12. Assistance with finding counseling services	1	2	3	4	<u>5</u>	N/A
13. Support for finding own solutions to problems	1	2	3	4	<u>5</u>	N/A
14. Support for expressing feelings	1	2	3	4	<u>5</u>	N/A
15. Support for working through feelings of loss	1	2	3	4	<u>5</u>	N/A
16. Support for identifying ways to cope with stress	1	2	3	4	<u>5</u>	N/A
17. Support for adjusting the functional changes	1	2	3	4	<u>5</u>	N/A
18. Assistance to address spiritual needs	1	2	3	4	<u>5</u>	N/A

Connection between Satisfaction Survey and Theory of Caring. The satisfaction survey results indicate that Watson's (2008) Theory of Caring was utilized throughout the intervention. For the caritas process of being authentically present with patients while respecting their deep belief system and subjective life world, several of the survey items reflect that this goal was accomplished. The patient indicated that she was very satisfied with the counseling and emotional support that was provided (survey items 8-11), which

indicates that the doctoral candidate was authentically present because a hallmark characteristic of counseling interactions is being present with the patient. Per Corey (2013), one of a therapist's core functions is to be "present and accessible to clients and to focus on their immediate experience... The therapist must be willing to be real in the relationship with clients... [as well as] congruent, accepting, and empathic" (Corey, 2013, p. 180). The patient also indicated that she felt supported in her feelings, stress, and functional changes, and received assistance with spiritual needs (survey item 13-18), which reflects that the patient's values and subjective life world were respected. The second caritas process that was utilized throughout the intervention was being supportive of the expression of positive and negative feelings. The survey indicates that this support took place as indicated by item 8 (emotional support provided), item 14 (support for expression of feelings), and item 15 (support for working through feelings of loss). Lastly, a genuine teaching-learning experience was created during the intervention, which was the third caritas process employed. This creation of a teaching-learning experience is reflected in the participant's responses, which include that she was very satisfied with the information that was taught about depression and its treatment (survey items 1-4), coping strategies (survey item 7), and community supports and counseling services (survey items 5 and 12).

Personnel and Cost

Psychotherapy services can be provided by counselors, social workers, psychologists, psychiatrists, or psychiatric nurse practitioners. Counselors and social workers are generally master's-prepared, whereas the other professions are generally

doctorally-prepared. Therapy services can be provided by a salaried employee or a contracted therapist. The median hourly wage for a master's-prepared mental health counselor is \$20.59 and the median annual wage is \$42,840 (Bureau of Labor Statistics [BLS], 2016). The median hourly wage of a master's-prepared healthcare social worker is \$25.85 and the median annual wage is \$53,760 (BLS, 2016). Psychotherapy provided by doctorally-prepared clinicians costs more than master's-prepared clinicians. Median hourly wages are \$93.63 for psychiatrists, \$48.52 for nurse practitioners, and \$35.23 for psychologists (BLS, 2016). Median annual wages are \$194,740, \$100,910, and \$73,270, respectively (BLS, 2016).

If an OB/GYN clinic wanted to contract a therapist for services, their hourly rate would be higher since private practice clinicians charge more per hour, but overall cost could be lower. Babakian (2013) explains that, while therapists' fees vary according to geographic location and levels of training, one standard session generally runs between \$80 and \$120. Cohen (2014) gives a similar estimate, explaining that most therapists charge \$75-\$150 a session. Depending on the extent to which an OB/GYN clinic desires to use a therapist, it may make the most sense to utilize independent contractors if they are looking for someone to offer a monthly PPD prevention group only. This option would offer four group sessions per month. Using an estimate of \$100 per group session, this would cost the clinic \$400 per month for a total of \$4800 per year. If a clinic values the idea of imbedding a clinician to care for all the therapy needs of their clients, then they should plan to set aside around \$50,000 for a counselor or social worker, \$70,000 for a psychologist, \$100,000 for nurse practitioner, and \$200,000 for a psychiatrist. A benefit

of employing nurse practitioners or psychiatrists is that these providers can prescribe medication in addition to offering psychotherapy, which would provide more comprehensive services for mental health patients.

An additional cost to consider is the price of not preventing PPD. There is a wide range of negative effects that depression has on women and their children (Beardslee et al., 1998; Field, 2010; Lovejoy et al., 2000; Weissman et al., 2006). Compared to mothers without PPD, mothers with PPD are less nurturing, less likely to use safety practices, have greater difficulty breast feeding, and their infants have fewer well-child visits and receive fewer vaccinations (Field, 2010; Lovejoy et al., 2000). The WHO (2017) states that the consequences of depression in terms of lost health are huge. Depression is the single largest contributor of global disability, accounting for 7.5% of all years lived with disability in 2015. Depression is also a major contributor to suicide deaths, which affected 788,000 people in 2015. Suicide accounts for close to 1.5% of all deaths worldwide, bringing it into the top 20 leading causes of death. Clearly, the cost of depression is high. When factoring in other costs like children not receiving vaccinations or utilizing the emergency department more frequently, this cost rises further.

Summary of Results

In conclusion, the project was a success because best evidence was identified, the IPT intervention was implemented, and one woman had a positive outcome from the intervention, showing a clinically significant improvement in her EPDS score pre- and post-intervention. Unfortunately, half of the women did not attend the intervention and,

therefore, the intervention failed in this regard because it could not retain eligible women. The location of the group therapy room may have contributed to this loss, as the intervention was offered at a different location from the OB/GYN clinic. This shift took place because the clinic had no space for private group meetings. The morning time frame of the intervention could have also played a role in this failure as some women had no childcare available and others worked during the day.

CHAPTER FIVE

DISCUSSION

Summary

The American Association of Colleges of Nursing (AACN, 2006) encourages Doctor of Nursing Practice (DNP) programs to focus on the translation of new science and its application and evaluation as one of their core content areas. The scholarly project is one vehicle to demonstrate this application. Zaccagnini and White (2014) explain that the scholarly project is a synthesis of the student's work in the DNP program, a synthesis of all the knowledge and skills gained in the course of study. This project demonstrates this synthesis. A complex practice problem within the student's field of expertise was selected, an extensive literature review was conducted, an evidence-based intervention was proposed, doctoral level leadership skills were utilized, evaluation of the project was undertaken, and a method for dissemination was selected (Zaccagnini & White, 2014). The totality of this project demonstrates that the nurse practitioner competencies described by the National Organization of Nurse Practitioner Faculties (NONPF, 2017) were achieved. Developed and executed over the course of two years, this project shows that the NONPF areas of independent practice, ethics, healthcare delivery systems, technology and information literacy, practice inquiry, quality, leadership, and scientific foundation were proficiently navigated.

Strengths of the Project

Although this was a very small-scale intervention with a large unanticipated finding, it had several advantages. First, the project applied appropriate tools for implementation and measurement based on the selected setting. The EPDS and satisfaction survey were easily administered and completed, and both provided helpful information. Additionally, the EPDS was a reliable and validated measure. Second, the project demonstrated an aspect of the translation cycle. Translational science moves basic science from the laboratory to implementation at the bedside (National Center for Advancing Translational Sciences, 2017). Because there is a well-documented lag in the implementation of evidence to practice (White, Dudley-Brown, & Terhaar, 2016), this project played a role in decreasing this lag time and was able to familiarize one clinic with the translation process. Third, a thorough literature review was completed and the designed intervention was evidence-based. This is a necessary component of translation projects and highlights the skills gained throughout the DNP course of study. Fourth, a population in need of higher-quality care was identified and a cost-efficient intervention was tailored to their needs in order to improve health outcomes. This action aligns with suggestions made by Berwick, Nolan, and Whittington (2008) in *The Triple Aim*, which implore healthcare providers to improve the experience of care, improve the health of populations, and reduce healthcare costs.

Unanticipated Finding

One unanticipated difficulty was the low attendance rate or follow-through with the intervention. The literature used to develop this project did not have such high attrition. Of the 36 women randomized in the study by Crockett et al. (2008), only one woman dropped out of the study, and this was because she moved away. Out of five intervention sessions in this study, the mean number of sessions attended was 4.58 (SD = 4.95) and the mode was 5.00 (Crockett et al., 2008). Gao et al. (2012) reported that 92 of 96 women completed the intervention in their study and all 98 women completed the classes in the control group. At the six-week postpartum follow-up, about 10% of women from both the intervention and control groups were lost to follow-up. Reasons cited included: did not go back to the hospital to have the routine examination (most common), mastitis, pneumonia, premature labor, and low birth weight. A majority of the women (80%) attended at least three of the four sessions in the study by Zlotnick et al. (2001) and only two women dropped out before follow-up. Zlotnick et al. (2006) had 13% of women drop out before the postpartum assessment at three months, and Zlotnick et al. (2016) reported a dropout rate of 22% at 3 months. For both of these studies, the mean number of sessions attended was around 3.5 of 5 total sessions (Zlotnick et al., 2006; Zlotnick et al., 2016). Compared to the literature, the attrition rate found in this project was much higher. This could be due to utilizing a different location for the group and the time of day (i.e., morning) that was used for the intervention. The identified RCTs did not discuss the time of day for their interventions, nor the day of the week. The RCTs also made no mention of using incentives.

Limitations

Although there were several strengths of this project, there were also several limitations. First, the group intervention could not be completed as planned and it became an individual intervention towards the end. This detracted from the fidelity of the translation process. Fidelity as described by White et al. (2016) refers to “the degree which program providers implement programs as intended by developers/researchers” (p. 68). Second, there was a high attrition rate, which led to a two-person sample, with only one completing all measurements. This outcome, coupled with the sudden military move of the DNP student (which prevented another iteration of the intervention), made statistical inferences impossible. The intended comparison of means using a t-test could not be carried out. Third, demographic data were not collected early in the process and, therefore, information about the patterns of those who completed the intervention and those who did not could not be gleaned. Fourth, the risk survey that was utilized was not a standardized questionnaire with completed psychometric testing. Using measures with robust psychometric testing leads to more trusted outcomes and increased consistency and reproducibility. Fifth, social pressures could have influenced the mother's response to the outcome measures, causing her to complete them more favorably at final assessment. Although it was assumed that mothers would complete the measures honestly and accurately, it would be foolish to ignore the effects of social pressure, especially in an unblinded, one-on-one, sole investigator project.

Successes and Difficulties

A major highlight and success of the project was the opportunity to communicate with Dr. Zlotnick and Dr. Cooper. Dr. Zlotnick is the lead author on several of the group IPT studies used to design this project and Dr. Cooper is the creator of the Cooper Survey Questionnaire, which was initially considered for use in this project to screen for risk of developing postpartum depression. These email communications were helpful, provided encouragement, and provided initial direction for the project. Another major success was getting to spend a day shadowing one of the committee members, Diane Goedde, in her comprehensive and collaborative nurse practitioner role at an OB/GYN clinic in Montana, where she provided mental health services for women at the clinic. This experience provided additional guidance and ideas for the project and future practice endeavors.

There were two major difficulties. First, it was painstakingly difficult to secure institutional review board (IRB) approval from the hospital IRB, which oversaw the Colorado OB/GYN clinic. In the end, the hospital IRB ceded to Montana State University's IRB. The process, though, included months of trying to secure paperwork and proof of trainings from the student, the committee chair, and the key stakeholder at the OB/GYN clinic. There were numerous requirements for the committee chair and key stakeholder, who both work full time, that presented significant obstacles to the process. The application questions and entire process was also daunting and nearly exhausted the student's efforts. At one point, the student emailed the committee chair wanting to change project ideas because of the overwhelming difficulty of the IRB process. The

second major difficulty was finding a place to implement a scholarly project, which could be related to the following factors. It had been recommended during new student orientation to not work. While this recommendation allowed for much needed and valued focus on schoolwork, it prevented the student from being ideally situated at a location for project implementation. Additionally, clinical rotations began after the proposal of a project idea and selection of committee members. This decreased the ability to capitalize on personal connections that can lead to project ideas and clinical sites willing to partner with students. With that said, these difficulties presented crucial experiences for the student to capitalize on leadership qualities and nurse practitioner competencies, ultimately producing a well-rounded graduate, versed in overcoming challenges.

Future Use of Intervention

There is an opportunity to implement this intervention at a US military health clinic where the student's husband is currently stationed in Baumholder, Germany. One of the primary care providers at this clinic vocalized a need for better prevention and treatment of postpartum depression (S. Herman, personal communication, August 17, 2017). Dr. Herman is the medical director at the Baumholder Health Clinic and recounted two significant cases of PPD that she recently diagnosed. The women had limited options for treatment and did not receive the best care they could have. She expressed excitement when she heard about this scholarly project and was very interested in utilizing the design to benefit the clinic. Currently, women are seen by OB/GYN providers at Landstuhl Regional Medical Center in Landstuhl, Germany—about 45 minutes away from

Baumholder. The commute becomes a barrier to care for women because many military couples share one vehicle and the main highway between the two locations (i.e., the autobahn) can be difficult to navigate because of high speeds and international driver's license requirements. Additionally, the clinic in Baumholder has four primary-care providers and two psychiatric nurse practitioners, which is why women go to Landstuhl for OB services. To complicate matters, no collaboration currently exists between the behavioral health department and primary care in Baumholder for preventing or treating PPD. Therefore, this intervention may provide the impetus for increased collaboration between the two departments and provide women much-needed mental health services during and after pregnancy.

Steps to Improve Future Projects

For future implementation, I recommend using the Edinburgh Postnatal Depression Scale (EPDS) to screen for depressive symptomatology. This was easy to use and amendable to busy clinics. Implementing routine use of the EPDS at a clinic could also be beneficial, especially during the third trimester and at six weeks postpartum. This tool can facilitate a conversation about depressive symptoms and increase PPD awareness. I also recommend improving the Cooper Survey Questionnaire so that it is easier to read and complete, or developing a new risk-survey questionnaire with adequate psychometric properties for use in the screening process. Identifying women who are at risk is a smart choice because it decreases the therapist's caseload and may secure more buy-in from women who know they are at risk. Gao et al. (2010) chose to offer their

group IPT intervention to all women, which is also an option, but this may increase total cost of care and therefore decrease the efficiency of providing quality healthcare.

Additionally, if interested in applying Watson's (2008) Theory of Caring, I would suggest utilizing the five-question Watson Caritas Patient Scale. It can be used with permission from the authors and measures the extent to which a nurse utilizes Watson's (2008) theory. It is a reliable and validated instrument that uses simple wording and can help inform the nurse of her caring tendencies. Lastly, I would complete multiple iterations of the intervention to learn from the process, adapting it to best create improvement.

Langley et al. (2009) recommend following the Plan-Do-Study-Act cycle to help develop and implement change. It provides a “framework for an efficient trial-and-learning methodology” (Langley et al., 2009, p. 24), which leads to successful change. Multiple iterations allow for ongoing evaluation, creating change ideas that can flourish and are well adapted to organizations.

Conclusion

This project highlights the need for more comprehensive services to prevent and treat PPD. Psychiatric nurse practitioners are optimally placed to coordinate and/or deliver the services in coordination with OB/GYN clinics and possibly primary-care clinics like the one in Baumholder, Germany. Despite the challenges experienced in implementation and analysis of this project, the group intervention was successful in many ways. Based on the clinic staff reception of the project and the outcome measures for one of the clients, implementing a PPD prevention program is achievable. In sum, this

type of intervention has the potential to improve health outcomes for antepartum and postpartum women, but further study is warranted.

REFERENCES CITED

- American Association of Colleges of Nursing. (2006). *The essentials of doctoral education for advanced nursing practice*. Washington, DC: Author.
- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders: DSM-5* (5th ed.). Arlington, VA: Author.
- Associate in Women's Care. (n.d.). *Our philosophy*. Retrieved from <http://myobgyndocor.com/>
- Babakian, G. (2013, December 23). How much does mental health care cost? Part 2: Finding affordable psychotherapy [Web log post]. Retrieved from <https://clearhealthcosts.com/blog/2013/12/much-mental-health-care-cost-part-2-finding-affordable-psychotherapy/>
- Beardslee, W. R., Versage, E. M., & Gladstone, T. R. (1998). Children of affectively ill parents: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(11), 1134-1141.
- Berwick, D. M., Nolan, T. W., & Whittington, J. (2008). The triple aim: Care, health, and cost. *Health Affairs*, 27(3), 759-769. doi: 10.1377/hlthaff.27.3.759
- Bledsoe, S. E., & Grote, N. K. (2006). Treating depression during pregnancy and the postpartum: A preliminary meta-analysis. *Research on Social Work Practice*, 16(2), 109-120. Retrieved from <http://search.proquest.com/docview/621123431?accountid=28148>
- Bonnel, W. & Smith, K. V. (2014). *Proposal writing for nursing capstones and clinical projects*. New York, NY: Springer Publishing Company.
- Boyce, P., Stubbs, J., & Todd, A. (1993). The Edinburgh Postnatal Depression Scale: Validation for an Australian sample. *The Australian and New Zealand Journal of Psychiatry*, 27(3), 472-476.
- Bureau of Labor Statistics. (2016). *Occupational employment statistics*. Retrieved from <https://www.bls.gov/oes/home.htm>
- Centers for Disease Control and Prevention. (2009). [Interactive map showing percentage of respondents reporting "yes" to, Have you experienced frequent postpartum depressive symptoms?]. Pregnancy Risk Assessment Monitoring System. Available from <http://www.cdc.gov/prams/pramstat/index.html>
- Centers for Disease Control and Prevention. (2011). [Interactive map showing percentage of respondents reporting "yes" to, Have you experienced frequent postpartum depressive symptoms?]. Pregnancy Risk Assessment Monitoring System. Available from <http://www.cdc.gov/prams/pramstat/index.html>

Cohen, M. B. (2014). How much does therapy cost? [Web log post]. Retrieved from <https://www.goodtherapy.org/blog/faq/how-much-does-therapy-cost>

Cooper, P. J., Murray, L., Hooper, R., & West, A. (1996). The development and validation of a predictive index for postpartum depression. *Psychological Medicine*, 26(3), 627-634.

Corey, G. (2013). *Theory and practice of counseling and psychotherapy* (9th ed.). Belmont, CA: Brooks/Cole.

Corsini, R. J., & Wedding, D. (2011). *Current psychotherapies* (9th ed.) Belmont, CA: Brooks/Cole.

Cox, J. L., Holden, J. M., & Sagovsky, R. (1987). Detection of postnatal depression: Development of the 10-item Edinburgh postnatal depression scale. *British Journal of Psychiatry*, 150, 782-786.

Crockett, K., Zlotnick, C., Davis, M., Payne, N., & Washington, R. (2008). A depression preventive intervention for rural low-income African American pregnant women at risk for postpartum depression. *Archives of Women's Mental Health*, 11(5-6), 319-325. doi:<http://dx.doi.org/10.1007/s00737-008-0036-3>

Delaney, C., Barrere, C., & Helming, M. (2011). The influence of a spirituality-based intervention on quality of life, depression, and anxiety in community-dwelling adults with cardiovascular disease. *Journal of Holistic Nursing*, 29(1), 21-32. doi:10.1177/0898010110378356

Dennis, C., & Creedy, D. (2004). Psychosocial and psychological interventions for preventing postpartum depression. *The Cochrane Database of Systematic Reviews*, (4):CD001134

Dennis, C. E. (2004a). Preventing postpartum depression part II: A critical review of nonbiological interventions. *The Canadian Journal of Psychiatry / La Revue Canadienne De Psychiatrie*, 49(8), 526-538. Retrieved from <http://search.proquest.com/docview/620511188?accountid=28148>

Dennis, C. E. (2004b). Treatment of postpartum depression, part 2: A critical review of nonbiological interventions. *Journal of Clinical Psychiatry*, 65(9), 1252-1265. Retrieved from <http://search.proquest.com/docview/620525987?accountid=28148>

Dennis, C. L., & Dowswell, T. (2013). Psychosocial and psychological interventions for preventing postpartum depression. *The Cochrane Database of Systematic Reviews*, 2:CD001134. doi: 10.1002/14651858.CD001134.pub3.

- Dennis, C. L., Heaman, M., & Vigod, S. (2012). Epidemiology of postpartum depressive symptoms among Canadian women: Regional and national results from a cross-sectional survey. *Canadian Journal of Psychiatry, 57*(9), 537-546.
- Dennis, C. L., & Hodnett, E. (2007). Psychosocial and psychological interventions for treating postpartum depression. *The Cochrane Database of Systematic Reviews, (4)*:CD006116.
- Epperson, C.N. (1999). Postpartum major depression: Detection and treatment. *American Family Physician, 59* (8), 2247-2254, 2259-2260.
- Ferguson, S. S., Jamieson, D. J., & Lindsay, M. (2002). Diagnosing postpartum depression: can we do better? *American Journal of Obstetrics and Gynecology, 186*(5), 899-902.
- Field, T. (2010). Postpartum depression effects on early interactions, parenting, and safety practices: A review. *Infant Behavior and Development, 33*(1), 1-6. doi: 10.1016/j.infbeh.2009.10.005
- Gao, L., Chan, S. W., Li, X., Chen, S., & Hao, Y. (2010). Evaluation of an interpersonal-psychotherapy-oriented childbirth education programme for Chinese first-time childbearing women: A randomised controlled trial. *International Journal of Nursing Studies, 47*(10), 1208-1216. doi: 10.1016/j.ijnurstu.2010.03.002
- Gao, L., Chan, S. W., & Sun, K. (2012). Effects of an interpersonal-psychotherapy-oriented childbirth education programme for Chinese first-time childbearing women at 3-month follow up: Randomised controlled trial. *International Journal of Nursing Studies, 49*(3), 274-281. doi:http://dx.doi.org/10.1016/j.ijnurstu.2011.09.010
- Gao, L., Luo, S., & Chan, S. W. (2012). Interpersonal psychotherapy-oriented program for chinese pregnant women: Delivery, content, and personal impact. *Nursing & Health Sciences, 14*(3), 318-324. doi:http://dx.doi.org/10.1111/j.1442-2018.2012.00722.x
- Gaynes, B. N., Gavin, N., Meltzer-Brody, S., Lohr, K. N., Swinson, T., Gartlehner, G., ... Miller, W. C. (2005). *Perinatal depression: Prevalence, screening accuracy, and screening outcomes* (Evidence Reports/Technology Assessments No. 119). Rockville, MD: Agency for Healthcare Research and Quality.
- Georgiopoulos, A. M., Bryan, T. L., Wollan, P., & Yawn, B. P. (2001) Routine screening for postpartum depression. *The Journal of Family Practice, 50*(2), 117-122.
- Goodman, S. H., & Gotlib, I. H. (1999). Risk for psychopathology in the children of depressed mothers: A developmental model for understanding mechanisms of transmission. *Psychological Review, 106*(3), 458-490.

- Grote, N. K., Bledsoe, S. E., Swartz, H. A., & Frank, E. (2004a). Culturally relevant psychotherapy for perinatal depression in low-income Ob/Gyn patients. *Clinical Social Work Journal*, 32(3), 327-347. Retrieved from <http://search.proquest.com/docview/620458234?accountid=28148>
- Grote, N. K., Bledsoe, S. E., Swartz, H. A., & Frank, E. (2004b). Feasibility of providing culturally relevant, brief interpersonal psychotherapy for antenatal depression in an obstetrics clinic: A pilot study. *Research on Social Work Practice*, 14(6), 397-407. Retrieved from <http://search.proquest.com/docview/620541911?accountid=28148>
- Grote, N. K., Katon, W. J., Russo, J. E., Lohr, M. J., Curran, M., Galvin, E., & Carson, K. (2015). Collaborative care for perinatal depression in socioeconomically disadvantaged women: A randomized trial. *Depression and Anxiety*, 32(11), 821-834. doi:<http://dx.doi.org/10.1002/da.22405>
- Grote, N. K., Swartz, H. A., Geibel, S. L., Zuckoff, A., Houck, P. R., & Frank, E. (2009). A randomized controlled trial of culturally relevant, brief interpersonal psychotherapy for perinatal depression. *Psychiatric Services*, 60(3), 313-321. doi:<http://dx.doi.org/10.1176/appi.ps.60.3.313>
- Haller, E. (2005). Depression during and after pregnancy: What does the primary care physician need to know? *Johns Hopkins Advanced Studies in Medicine*, 5(1), 21-26.
- Held, L., & Rutherford, A. (2012). Can't a mother sing the blues? Postpartum depression and the construction of motherhood in late 20th-century America. *History of Psychology*, 15(2), 107-123.
- Ickovics, J. R., Reed, E., Magriples, U., Westdahl, C., Rising, S. S., & Kershaw, T. S. (2011). Effects of group prenatal care on psychosocial risk in pregnancy: Results from a randomised controlled trial. *Psychology & Health*, 26(2), 235-250. <http://doi.org/10.1080/08870446.2011.531577>
- Jones, I., & Cantwell, R. (2010). The classification of perinatal mood disorders: Suggestions for DSMV and ICD11. *Archives of Women's Mental Health*, 13(1), 33-36.
- Kao, J. C., Johnson, J. E., Todorova, R., & Zlotnick, C. (2015). The positive effect of a group intervention to reduce postpartum depression on breastfeeding outcomes in low-income women. *International Journal of Group Psychotherapy*, 65(3), 445-458. doi:<http://dx.doi.org/10.1521/ijgp.2015.65.3.445>
- Kim, S., Hayward, R. D., & Kang, Y. (2013). Psychological, physical, social, and spiritual well-being similarities between Korean older adults and family caregivers. *Geriatric Nursing*, 34(1), 35-40. <http://dx.doi.org.proxybz.lib.montana.edu/10.1016/j.gerinurse.2012.07.010>

- Klerman, G. L., Weissman, M. M., Rounsaville, B. J., & Chevron, E. S. (1984). *Interpersonal psychotherapy of depression*. New York, NY: Basic Books.
- Langley, G., Moen, R., Nolan, K., Nolan, T., Norman, C., & Provost, L. (2009). *The improvement guide: A practical approach to enhancing organizational performance* (2nd ed.). San Francisco, CA: Jossey-Bass.
- LaRocco-Cockburn, A., Melville, J., Bell, M., & Katon, W. (2003). Depression screening attitudes and practices among obstetrician-gynecologists. *Obstetrics and Gynecology*, *101*, 892-898.
- LaRocco-Cockburn, A., Reed, S. D., Melville, J., Croicu, C., Russo, J. E., Inspektor, M., ...Katon, W. (2013). Improving depression treatment for women: Integrating a collaborative care depression intervention into OB-GYN care. *Contemporary Clinical Trials*, *36*(2), 362-370. doi: 10.1016/j.cct.2013.08.001
- Le, H., Muñoz, R. F., Ippen, C. G., & Stoddard, J. L. (2003). Treatment is not enough: We must prevent major depression in women. *Prevention & Treatment*, *6*(1) Retrieved from <http://search.proquest.com/docview/614386175?accountid=28148>
- Lovejoy, M. C., Graczyk, P. A., O'Hare, E., & Neuman, G. (2000). Maternal depression and parenting behavior: A meta-analytic review. *Clinical Psychology Review*, *20*(5), 561-592.
- Masters, K. (2015). *Nursing theories: A framework for professional practice* (2nd ed.). Burlington, MA: Jones and Bartlett.
- McDonagh, M., Matthews, A., Phillipi, C., Romm, J., Peterson, K., Thakurta, S., & Guise, J. (2014). *Antidepressant treatment of depression during pregnancy and the postpartum period: Executive summary* (Evidence Reports/Technology Assessments No. 216). Rockville, MD: Agency for Healthcare Research and Quality.
- Miniati, M., Callari, A., Calugi, S., Rucci, P., Savino, M., Mauri, M., & Dell'Osso, L. (2014). Interpersonal psychotherapy for postpartum depression: A systematic review. *Archives of Women's Mental Health*, *17*(4), 257-268. doi:<http://dx.doi.org/10.1007/s00737-014-0442-7>
- Montgomery, J. H., Byerly, M., Carmody, T., Li, B., Miller, D. R., Varghese, F., & Holland, R. (2004). An analysis of the effect of funding source in randomized clinical trials of second generation antipsychotics for the treatment of schizophrenia. *Controlled Clinical Trials*, *25*, 598-612.

- Moorhead, S., Johnson, M., Maas, M. L., & Swanson, E. (Eds.). (2013). *Nursing outcomes classification (NOC): Measurement of health outcomes* (5th ed.). St. Louis, MO: Elsevier Mosby.
- Moran, K., Burson, R., & Conrad, D. (2014). *The doctor of nursing practice scholarly project: A framework for success*. Burlington, MA: Jones & Bartlett Learning.
- Morris, L. (1996). A spiritual well-being model: Use with older women who experience depression. *Issues in Mental Health Nursing, 17*(5), 439-455.
- Morris-Rush, J. K., Freda, M. C., & Bernstein, P. S. (2005). Screening for postpartum depression in an inter-city population. *American Journal of Obstetrics and Gynecology, 188*(5), 1217-1219.
- Moses-Kolko, E. L., & Roth, E. K. (2004). Antepartum and postpartum depression: Healthy mom, healthy baby. *Journal of the American Medical Women's Association, 59*(3), 181-191.
- Mullaney, J. B. (2000). The Lived Experience of Using Watson's Actual Caring Occasion to Treat Depressed Women. *Journal of Holistic Nursing, 18*(2), 129.
- Murray, D., & Cox, J. (1990). Screening for depression during pregnancy with the Edinburgh depression scale (EPDS). *Journal of Reproductive and Infant Psychology, 8*, 99-117.
- Myers, E.R., Aubuchon-Endsley N., Bastian, L.A., Gierisch, J. M., Kemper, A R., Swamy, G. K., . . . Sanders, G. D. (2013). Efficacy and safety of screening for postpartum depression: Executive summary. *Comparative Effectiveness Reviews, 106*. Rockville, MD: Agency for Healthcare Research and Quality. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK137724/>
- National Center for Advancing Translational Sciences (NCATS). (2017). *Translational Science Spectrum*. Retrieved from: <https://ncats.nih.gov/translation/spectrum>
- National Organization of Nurse Practitioner Faculties. (2017). *Nurse practitioner core competencies content: A delineation of suggested content specific to the NP core competencies*. Retrieved from <http://www.nonpf.org/?page=14>
- Nylen, K. J., O'Hara, M. W., Brock, R., Moel, J., Gorman, L., & Stuart, S. (2010). Predictors of the longitudinal course of postpartum depression following interpersonal psychotherapy. *Journal of Consulting and Clinical Psychology, 78*(5), 757-763. Retrieved from <http://search.proquest.com/docview/763259204?accountid=28148>

- O'Connor, E., Rossom, R. C., Henninger, M., Groom, H. C., & Burda, B. U. (2016). Primary care screening for and treatment of depression in pregnant and postpartum women: Evidence report and systematic review for the US Preventive Services Task Force. *Journal of the American Medical Association, 315*(4), 388-406. doi: 10.1001/jama.2015.18948
- O'Hara, M., & Swain, A. (1996). Rates and risk of postpartum depression: A meta-analysis. *International Review of Psychiatry, 8*, 37-54.
- O'Hara, M. W. (2009). Postpartum depression: What we know. *Journal of Clinical Psychology, 65*(12), 1258-1269. doi:http://dx.doi.org/10.1002/jclp.20644
- Pearlstein, T. B., Zlotnick, C., Battle, C. L., Stuart, S., O'Hara, M. W., Price, A. B., . . . Howard, M. (2006). Patient choice of treatment for postpartum depression: A pilot study. *Archives of Women's Mental Health, 9*(6), 303-308. doi:http://dx.doi.org/10.1007/s00737-006-0145-9
- Perlis, R.H., Perlis, C.S., Wu, Y., Hwang, C., Joseph, M., & Nierenberg, A.A. (2005). Industry sponsorship and financial conflict of interest in the reporting of clinical trials in psychiatry. *American Journal of Psychiatry, 162*, 1957-1960.
- Polit, D. At., & Beck, C. T. (2012). *Nursing research: Generating and assessing evidence for nursing practice* (9th ed.). Philadelphia, PA: Lippincott Williams & Wilkins.
- Stacey, W., Singh-Carlson, S., Odell, A., Reynolds, G., & Yuhua, S. (2016). Compassion fatigue, burnout, and compassion satisfaction among oncology nurses in the United States and Canada. *Oncology Nursing Forum, 43*(4), E161-E169. doi:10.1188/16.ONF.E161-E169
- Sword, W. (2005). Review: Some specific preventive psychosocial and psychological interventions reduce risk of postpartum depression. *Evidence Based Nursing, 8*(3), 76.
- Taylor, V. (2000). Emotions and identity in women self-help movements. In Striker, T. J. Owens, & R. W. White (Eds.), *Self, identity, and social movements* (pp. 271-299). Minneapolis, MN: University of Minnesota Press.
- TRICARE. (2017). *About us*. Retrieved from <https://www.tricare.mil/About>
- Watson, J. (1979). *Nursing: The philosophy and science of caring*. Boston, MA: Little, Brown and Company.
- Watson, J. (1985). *Nursing: The philosophy and science of caring* (2nd printing). Niwot, CO: University Press of Colorado.

- Watson, J. (1999). *Postmodern nursing and beyond*. Edinburg: Churchill Livingstone.
- Watson, J. (2008). *Nursing: The philosophy and science of caring* (revised edition). Boulder, CO: University Press of Colorado.
- Watson, J., Brewer, B.B., & D'Alfonso, J. (2010). *Watson Caritas Patient Score (WCPS)*. Watson Caring Science Institute: Boulder, CO.
- Weissman, M. M., Markowitz, J. C., & Klerman, G. (2007). *Clinician's quick guide to interpersonal psychotherapy*. New York, NY: Oxford University Press.
- Weissman, M. M., Wickramaratne, P., Nomura, Y., Warner, V., Pilowsky, D., & Verdeli, H. (2006). Offspring of depressed parents: 20 years later. *The American Journal of Psychiatry*, *163*(6), 1001-1008.
- Weidner, K., Bittner, A., Junge-Hoffmeister, J., Zimmermann, K., Siedentopf, F., Richter, J., ... Stöbel-Richter, Y. (2010). A psychosomatic intervention in pregnant inpatient women with prenatal somatic risks. *Journal of Psychosomatic Obstetrics & Gynecology*, *31*(3), 188-198. Retrieved from <http://search.proquest.com/docview/757464617?accountid=28148>
- White, K., Dudley-Brown, S., & Terhaar, M. (2016). *Translation of evidence into nursing and health care* (2nd ed.) New York, N.Y: Springer Publishing Company.
- World Federation for Mental Health. (2012). *Depression: A global crisis*. Occoquan, VA: Author.
- World Health Organization. (2002). *Prevention and promotion in mental health*. Geneva, Switzerland: Author. Retrieved from http://www.who.int/mental_health/media/en/545.pdf
- World Health Organization. (2013). *Mental health action plan 2013-2020*. Geneva: Author.
- World Health Organization. (2016). *International statistical classification of diseases and related health problems 10th revision: 2016 version*. Retrieved from <http://apps.who.int/classifications/icd10/browse/2016/en>
- World Health Organization. (2017). *Depression and other common mental disorders: Global health estimates*. Geneva, Switzerland: Author.
- Yalom, I. (1995). *The theory and practice of group psychotherapy* (4th ed.). New York, NY: BasicBooks.

Zaccagnini, M. E., & White, K. W. (2014). *The doctor of nursing practice essentials: A new model for advanced practice nursing* (2nd ed.). Burlington, MA: Jones & Bartlett Learning.

Zlotnick, C., Johnson, S. L., Miller, I. W., Pearlstein, T., & Howard, M. (2001). Postpartum depression in women receiving public assistance: Pilot study of an interpersonal-therapy-oriented group intervention. *The American Journal of Psychiatry*, *158*(4), 638-640. Retrieved from <http://search.proquest.com/docview/619691271?accountid=28148>

Zlotnick, C., Miller, I. W., Pearlstein, T., Howard, M., & Sweeney, P. (2006). A preventive intervention for pregnant women on public assistance at risk for postpartum depression. *The American Journal of Psychiatry*, *163*(8), 1443-1445. Retrieved from <http://search.proquest.com/docview/621396702?accountid=28148>

Zlotnick, C., Tzilos, G., Miller, I., Seifer, R., & Stout, R. (2016). Randomized controlled trial to prevent postpartum depression in mothers on public assistance. *Journal of Affective Disorders*, *189*, 263-268. doi:<http://dx.doi.org/10.1016/j.jad.2015.09.059>

APPENDICES

APPENDIX A

THE 10 CARITAS PROCESSES®

The 10 Caritas Processes® are summarized here from Watson (2008):

- 1) Practice lovingkindness and equanimity for oneself and other.
- 2) Be authentically present and enable, sustain, and honor the deep belief system and subjective life world of oneself and the one being cared for.
- 3) Cultivate one's own spiritual practices; deepen self-awareness and go beyond the ego self.
- 4) Develop and sustain a helping-trusting, authentic caring relationship.
- 5) Be present to, and supportive of, the expression of positive and negative feelings as a connection with the deeper spirit of oneself and the one being cared for.
- 6) Creatively use oneself in all ways of knowing as part of the caring process and engagement in the artistry of caring-healing practices.
- 7) Engage in a genuine teaching-learning experience within the context of a caring relationship, while attending to the whole person and subjective meaning; attempt to stay within the other's frame of reference.
- 8) Create a healing environment at all levels—a physical, nonphysical, subtle environment of energy and consciousness whereby wholeness, beauty, comfort, dignity, and peace are potentiated.
- 9) Reverentially and respectfully assist with basic needs with an intentional caring consciousness; allow for spirit-filled connection.
- 10) Open and attend to spiritual, mysterious, and unknown existential dimensions of life, death, and suffering; allow for miracles.

APPENDIX B

SUMMARY OF EVIDENCE FOR GROUP IPT

Author/Year	Study Design	Purpose	Screening	Methods/Sample	Control	Experimental	Findings
Zlotnick et al., 2016	Randomized-Controlled Trial	PPD Prevention	Cooper survey questionnaire (First et al., 2002)	205 Pregnant women (20-35 weeks) randomized to IPT group (n=104) or treatment-as-usual (n=101)	“Standard antenatal care alone”	Four 90-minute group sessions over a four-week period and a 50-minute individual booster session within two weeks of delivery	Reduced depression rate at 6 months postpartum in experimental group (p<.05)
Zlotnick et al., 2006	RCT	PPD Prevention	Cooper survey questionnaire (Cooper et al., 1996)	99 Pregnant women (23-32 weeks) randomized to IPT group (n=53) or treatment-as-usual (n=46)	“Standard antenatal care”	Four 60-minute group sessions with 3-5 women over a four-week period and a 50-minute individual booster session after delivery	Reduced depression rate at three months in experimental group (p=0.04); No significant difference in BDI score at 3 months between groups
Zlotnick et al., 2001	RCT; Pilot Study	PPD Prevention	Risk factor survey	37 pregnant women (20-32 weeks) randomized to IPT group (n=17) or treatment-as-usual (n=18)	“Standard medical attention and treatment”	Four 60-minute group sessions with 4-6 women over a four-week period	Reduced depression rate at three months in experimental group (p=0.02). Reduction in BDI scores in experimental group at 3 months (p=0.001)
Gao et al., 2010	RCT	PPD Prevention		194 first-time pregnant women (>28 weeks) randomized to IPT group (n=96) or treatment-as-usual (98)	“Routine antenatal education” “Routine care” Two 90-minute sessions conducted by midwives with content focused	Two 2-hour IPT group sessions (10 or fewer participants) and one telephone follow up two weeks postpartum	IPT group had significantly better psychological well-being (p=0.001), fewer depressive symptoms using the EPDS (p<0.001), and better

					on delivery process and childcare		interpersonal relationships (p=0.001) at six weeks postpartum. No significant difference was found between groups for the number of women scoring > or = to 13 on the EPDS at six weeks postpartum.
Gao et al., 2012	RCT	PPD Prevention		194 first-time pregnant women (>28 weeks) randomized to IPT group (n=96) or treatment-as-usual (n=98)	“Routine antenatal education” “Routine care” Two 90-minute sessions conducted by midwives with content focused on delivery process and childcare (Table 1)	Two 2-hour IPT group sessions (10 or fewer participants) and one telephone follow up two weeks postpartum	At three months postpartum the intervention group had higher levels of social support (p=0.021), maternal role competence (p=0.016), and less depressive symptoms as measured by the EPDS (p=0.018)
Crockett et al., 2008	RCT, Pilot Study	PPD Prevention	Cooper survey questionnaire (Cooper et al., 1996)	36 pregnant African-American women (24-31 weeks) randomized to IPT group (n=19) or treatment-as-usual (n=17)	“Standard medical attention and medical treatment” and “Care-as-usual as well as educational pamphlets”	Four 90-minute group sessions over a four-week period and a 50-minute individual booster session within two weeks of delivery	Significant within group decrease in depressive symptoms in IPT group at three months postpartum (p<0.009). No change within control group. No significant difference was found between groups for

							depressive symptoms three months postpartum.
--	--	--	--	--	--	--	--

APPENDIX C

EDINBURGH POSTNATAL DEPRESSION SCALE

Cox et al. (1987) - Users may reproduce the scale without further permission providing they respect copyright by quoting the names of the authors, the title, and the source of the paper in all reproduced copies.

INSTRUCTIONS: Complete the following statements about how you have felt in the past 7 days. Add the number next to each square that has been filled in. This is the total score.

1. I have been able to laugh and see the funny side of things:

- 0 As much as I always could
- 1 Not quite as much now
- 2 Definitely not so much now
- 3 Not at all

2. I have looked forward with enjoyment to things:

- 0 As much as I ever did
- 1 Rather less than I used to
- 2 Definitely less than I used to
- 3 Hardly at all

3. I have blamed myself unnecessarily when things went wrong:

- 3 Yes, most of the time
- 2 Yes, some of the time
- 1 Not very often
- 0 No, never

4. I have been anxious or worried for no good reason:

- 0 No, not at all
- 1 Hardly ever
- 2 Yes, sometimes
- 3 Yes, very often

5. I have felt scared or panicky for no very good reason:

- 3 Yes, quite a lot
- 2 Yes, sometimes
- 1 No, not much

- 0 No, not at all

6. Things have been getting on top of me:

- 3 Yes, most of the time I haven't been able to cope at all
- 2 Yes, sometimes I haven't been coping as well as usual
- 1 No, most of the time I have coped quite well
- 0 No, I have been coping as well as ever

7. I have been so unhappy that I have had difficulty sleeping:

- 3 Yes, most of the time
- 2 Yes, sometimes
- 1 Not very often
- 0 No, not at all

8. I have felt sad or miserable:

- 3 Yes, most of the time
- 2 Yes, quite often
- 1 Not very often
- 0 No, not at all

9. I have been so unhappy that I have been crying:

- 3 Yes, most of the time
- 2 Yes, quite often
- 1 Only occasionally
- 0 No, never

10. The thought of harming myself has occurred to me:

- 3 Yes, quite often
- 2 Sometimes
- 1 Hardly ever
- 0 Never

APPENDIX D

COOPER SURVEY QUESTIONNAIRE

Cooper et al. (1996) – Reproduced with permission from the author (P. Cooper, personal communication, October 3, 2016).

Please read the following questions carefully, and mark the box corresponding to the statement which most applies to you.

1. Do you already have children?

a. Yes	
b. No	

2. If Yes, after any previous delivery were you particularly miserable or depressed at any time during the following year?

a. Yes	
b. No	

3. Have you ever had difficulty falling pregnant and sought help?

a. No	
b. Yes, from own doctor	
c. Yes, From Clinic	

4. Has this pregnancy been a positive experience for you?

a. Yes, definitely	
b. Yes, mostly	
c. Mostly not	
d. Definitely not	

5. Have you felt at all tense or anxious during this pregnancy?

a. No, not at all	
b. Yes, a little	
c. Yes, a lot	

6. Have you felt *particularly* depressed or miserable over the last few weeks?

a. Yes	
b. No	

7. Have there been other times in your life (other than in the year following a delivery) when you have felt *particularly* miserable or depressed?

a. Yes	
b. No	

8. If yes to the above:
8a. Did you seek professional help at this time?

a. Yes	
b. No	

- 8b. Did being miserable seriously interfere with your daily life (e.g., work, family, friends)?

a. Yes	
b. No	

9. Have you had any complications or health problems during this pregnancy which required medical attention?

a. No	
b. Yes, treated by doctor	
c. Yes, required hospital admission	

10. How long have you been with your current partner?

a. No partner	
b. Less than 1 year	
c. 1-2 years	
d. 2-5 years	
e. More than 5 years	

11. How have you and your partner been getting along in recent months?

a. No partner	
b. Close, warm relationship	
c. A few tensions and disagreements	
d. Moderate friction or coolness	
e. Marked friction or	

coolness	
f. Constant friction or relationship is breaking down	

12. Did your mother die before you aged 11 (This could be a step-mother or adoptive mother)?

a. Yes	
b. No	

13. If you have a mother, how would you describe your relationship with her at the moment?

a. No mother	
b. Close, warm relationship	
c. Fair, reasonable warm, some minor discord	
d. Poor, not particularly warm, some serious bad feelings	
e. Very poor, relationship cold and hostile	

14. Have you anyone, apart from your mother or partner, in whom you can confide?

a. Yes	
b. No	

15. What is your highest level of education?

a. 8 th grade or less	
b. High school	
c. GED	
d. Further qualifications (e.g. secretarial, nursing)	
e. College degree	
f. Graduate degree	

16. How would you describe the area that you live in?

a. Very satisfactory	
b. Reasonably satisfactory	

c. Rather unsatisfactory	
d. Very unsatisfactory	

17. If you worked during this pregnancy, how do you feel about giving up work?

a. Not working	
b. Keen to stop	
c. Mixed feelings	
d. Reluctant to stop	
e. Don't intend to stop	