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Addressing the missing part of evidence-based practice: The importance of respecting clinical judgment in the process of adopting a new screening tool for postpartum depression

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Abstract

The aim of the present study was to examine the role of nurse's clinical judgment in the uptake of an evidence-based tool assessing postpartum depression, the Edinburgh Postpartum Depression Scale. Nurses in a home visitation program were being asked to regularly screen for postpartum depression. The screener was introduced as a new standard of practice for nurses. A qualitative investigation of the nurses' reactions to the addition of an evidence based screener was conducted. Prior to and during implementation, several meetings were held with the nurses and the research team to discuss the nurses' experience with the tool. Nurses participated in semi-structured interviews and notes were reviewed to identify themes that may be useful to further understanding EBP in nurse home visitation. It was found that the process of uptake included three phases: dissatisfaction with the utility of the tool; problem-solving and integration of clinical judgment into a complimentary instrument, and eventual reliance on the standardized tool. Respecting the nurses' field experience and clinical judgment was key to the process of adoption of an evidence-based tool. The process uncovered here requires larger scale study to see if this can be used across various settings and with differing screening mechanisms to increase comfort with the use of recommended non-health screening tools.

Keywords

Clinical Judgment; Evidence-Based Practice; Postpartum Depression; Edinburgh Postpartum Depression Scale; Nursing practice; Lessons Learned

Introduction

Evidence-based practice has been recognized by the healthcare community as the standard for the provision of safe and compassionate health care (Brown, Wickline, Ecoff, & Glaser, 2009). Evidence-based practice (EBP) is defined as the integration of best research evidence with clinical expertise and patient values (Sackett, Rosenberg, Gray, & Haynes, 1996; Sackett, Straus, Richardson, Rosenberg & Haynes, 2000). EBP strives to provide the best possible information to guide the decision-making of practitioners and service recipients in selecting and implementing a treatment plan (Gibbs, 2003) and thus promotes practices which have been demonstrated to be safe and effective (Chaffin & Friedrich, 2004).

The acceptance of EBP by practitioners is key to assuring that the best available evidence-based intervention will guide professional practice. However, acceptance of EBP by practitioners is not always easy to obtain (e.g., Chaffin & Friedrich, 2004; Cummings, Estabrooks, Midodzi, Wallin, & Hayduk, 2007; Wallin, Ewald, Wikblad, Scott-Findlay, & Arnetz, 2006). Various barriers to the adoption of evidence-based practice have been identified including: lack of time, lack of authority to change practice; organizational cultures rewarding routine, task-based practice; misconception about evidence-based practice; lack of administrative support; lack of mentorship; lack of access to resources and inconsistent basic knowledge and experience with research (Brown et. al., 2009; DiCenso, Cullum, & Ciliska, 1998; Estabrooks, Floyd, Scott-Findlay, O'Leary, & Gushta, 2003; Fink, Thompson, & Bonnes, 2005; Funk, Champagne, Wiese, & Tornquist, 1991; Kajermo, Nordström, Krusebrant, & Björvell, 2008; Newman, Papadopoulos, & Sigsworth, 1998; Parahoo, 2000; Retsas, 2000; Rousseau, & Gunia, 2016; Stavor, Zedreck-Gonzalez, & Hoffmann, 2017). While studies report various barriers to the uptake of EBP the role of clinical judgment in this process remains unclear.

Clinical judgment is viewed as an essential skill for virtually every health professional (Tanner, 2006) and has been explicitly championed as a core component of EBP from the very beginning (EBMWG, 1992). In the nursing literature, it is defined as an interpretation or conclusion about a patient's needs, concerns, or health problems, and/or the decision to take action (or not), use or modify standard approaches, or improvise new ones as deemed appropriate by the patient's response (Tanner, 2006). Alfaro-LeFevre (1995) suggests clinical judgment is the application of critical thinking in clinical practice. It is rooted in actions based on the ability to analyze empirical information in relation to both the specific situation and the aesthetic and reflective aspects of the nurse and the environment of practice (Victor-Chmil, 2013). Building on prior research Tanner (2006) suggested Model for Clinical Judgment in Nursing which is considered the most comprehensive conceptual framework for defining clinical judgment in nursing (Victor-Chmil, 2013). Tanner's conceptual model illustrates the subcategories of clinical judgment or 4 aspects of "thinking like a nurse": (1) Noticing: A perceptual grasp of the situation at hand; (2) Interpreting: Developing a sufficient understanding of the situation to respond; (3) Responding: Deciding on a course of action deemed appropriate for the situation; (4) Reflecting: Attending to patients' responses to the nursing action while in the process of acting. While this model provides conceptual framework for assessing nurses' clinical judgment, it doesn't

specifically relate to the role of clinical judgment in implementing evidence-based practice (EBP).

This paper seeks to shed light on the potential role of clinical judgment in the process of adopting a new evidence-based assessment approach. Qualitative and process data are used to discuss the reaction of home visitation nurses to the introduction of an evidence-based assessment tool--the Edinburgh Postpartum Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987) in a pilot study related to postpartum depression among low income recipients of home visitation.

Postpartum Depression

Postpartum depression affects approximately 14% of new mothers in the US within the first postpartum year (Cox & Holden, 2003; Gordon, Cardone, Kim, Gordon, & Silver, 2006; Halbreich & Karkun, 2006; Horowitz et al., 2011; Kendall-Tackett, 2005; O'Hara & Swain, 1996), with higher rates among women of low socioeconomic status (Goodman, 2009). Studies indicate that low-income Latino and African-American women are at highest risk for developing postpartum depression (Abrams et al., 2009; Howell, Mora, Horowitz, & Leventhal, 2005; Deal & Holt, 1998; Yonkers et al., 2001; Watson & Kemper, 1995), with rates as high as between 28% and 56% reported among poor and minority women (Chaudron et al., 2010; Liu, Giallo, Doan, Seidman, & Tronick, 2016; Muzik & Borovsha, 2010; Tandon, Cluxton-Keller, Leis, Huynh-Nhu, & Perry, 2012). Postpartum depression has detrimental consequences on both mothers and infants due to changes in the quality of care provided by the depressed mother (Grace, Evindar, & Stewart, 2003; O'Hara, 1997; Teti, Gelfand, Messinger, & Isabella, 1995). Postpartum depression is associated with increased risk of insecure attachment patterns due to disturbed maternal sensitivity (Campbell, Brownell, Hungerford, Spieker, Mohan, & Blessing, 2004; Dennis, 2004; McLearn, Minkovitz, Strobino, Marks, & Hou, 2006; Murray & Cooper, 1997; Smith-Nielsen, Tharner, Steele, Cordes, & Væve, 2016; Teti et al., 1995) and considered a strong risk factor for childhood psychopathology (Brennan, Hammen, Andersen, Bor, Najman, & Williams, 2000; Hammen & Brennan, 2003; Hay, Pawlby, Angold, Harold, & Sharp, 2003; Muzik & Borovsha, 2010). Depressive symptoms appear to contribute to unfavorable parenting practices (McLearn et al., 2006), higher levels of parenting stress (Abidin, 1995; Glavin, Smith, Sørnum, & Ellefsen, 2010; Morrell et al., 2009), and increased risk for child maltreatment (Hildyard & Wolfe, 2007).

Home visiting services may provide a promising venue to identify and treat maternal mental health symptoms using evidence-based approaches (Ammerman, Putnam, Chard, Stevens, & Van Ginkel, 2011; Duggan, Berlin, Cassidy, Burrell, & Tandon, 2009; Howard & Brooks-Gunn, 2009). While sound screening and evidence-based treatments for depression exist (Raue & Schulberg, 2005; Brugha, Morrell, Slade, & Walters, 2011; Glavin et al., 2010; Morrell et al., 2009), women with depression in the postpartum period often go unidentified and untreated (Anderson, Robins, Greeno, Cahalane, Copeland, & Andrews, 2006; Dennis, 2005; Goodman & Tyer-Viola, 2010). This paper explores the relationship of nurse clinical judgment and the adoption of an evidence-based assessment tool.

The Present Study

As a precursor to a randomized trial to test the effectiveness of integrating depression treatment into a large nurse home visiting program, a small feasibility trial was conducted, part of which included the need to encourage nurses to systematically assess for postpartum depression. The study also explored the feasibility of delivering an adapted version of Problem-Solving Therapy but this article will focus on the screening instrument.

The current paper describes how clinical judgment became an important factor in the adoption of the process of uptake of EPDS tool by experienced registered nurses.

Method

The Participating Agency

The collaborating agency, Nurses for Newborns (name of the agency was omitted for blind review), is a non-profit organization providing free in-home visiting services to at risk families. Nurses for Newborn's mission is to provide a safety net for families most at risk, to prevent infant mortality, and to prevent child abuse and neglect. Begun in 1991, Nurses for Newborns serves 5 urban counties and 20 rural counties with a caseload comprised almost exclusively of mothers with Medicaid or no insurance (85%) and medically-fragile newborns (66%). Mothers can be enrolled during the prenatal stage up to 18 months postpartum. A significant percent of clients are enrolled prenatal to infant 6 months of age. Less than 5% are older at the time of enrollment. Any expectant or mother with an infant less than 18 months of age is eligible. The service is provided by registered nurses with average of 15–17 years of experience. In addition to the infant and maternal healthcare supports of Nurses for Newborn's services, nurses provide parenting education, and connection with any additional medical, social or government services families may need. The agency also provides a variety of daily functional supports such as diapers, formula, clothing, toys, and books (Rohrbach, 1993; USDHHS Health Resources & Services Administration, Bureau of Primary Health Care, 1996).

Measurement of Postpartum Depression

Nurses for Newborns initially used the Center for Epidemiological Studies Depression Scale (CES-D) tool, a frequently used measure of depression, but not specific to postpartum depression. Following their participation in the federal program "Healthy Start" in 2009 the agency administration opted to switch to the Edinburgh Postpartum Depression Scale (EPDS; Cox, Holden, & Sagovsky, 1987) as their screening tool of choice. This decision was influenced by the well-established validity and reliability of the EPDS (Buist et al., 2002; Cox et al., 1987; Cox & Holden, 2003; Goodman, 2009; Lanes, Kuk, & Tamim, 2011), its availability in many languages, and ease of use. This change was made just as the feasibility study was set to begin.

Data and Procedure

The analysis of the process of uptake of the EPDS by the nurses was based on data obtained from the meetings between the research team and the nurses. As nurses began to use the EPDS during their home visiting in order to identify depressed mothers, offer them

treatment and recruit them to the pilot study, they reported challenges with implementation of the tool. To explore the problems and to develop a solution, a process of interactive collaboration between the research team and the nurses was undertaken. Several meetings were held to discuss the nurses' experience in employing the EPDS, offered suggestions for improvements, and at the next meeting discussed how the deployment of the suggestions went in practice. Detailed notes were taken during each of the meeting and a systematic review of the notes informed each decision that was made. The present study describes the process of uptake of the new screening tool by the nurses based on analysis of the discussions between the nurses and the research team which were documented during these meetings. In order to identify central phases in this process and core themes regarding the nurses' experience with the new tool, members of the research team conducted thematic content analysis of the discussions with the nurses. Discussions between members of the research team continued until agreement was reached with regard to identification of critical points in the process, appropriate conceptualizations of the nurses' experience and different phases in the process of uptake which were identified. Throughout all aspects of the analytic process, reliability of data was addressed by employing debriefing between the team members in order to address discrepancies, clarify of concepts and refine themes (Sandelowski & Barroso, 2003).

In the analysis of the materials we were inspired by Tanner's (2006) Model for Clinical Judgment in Nursing. We found that Tanner's model accurately captures the experience of the nurses in the field and therefore integrated main concepts of this model in our analysis. The lessons learned from this process are now described.

Lessons Learned

After careful review of the notes, three phases in the process of uptake of EPDS by the nurses were identified: dissatisfaction with the performance of the tool; problem-solving and integration of clinical judgment, and eventual reliance on the standardized tool.

The score doesn't match her behaviors. As the nurses began using the scale, they reported discomfort with low scores that seemed out of sync with the behaviors they observed in the home. The nurses were informing us that they were assessing depression based on their many years of experience despite low scores of the EPDS. They described the disparity they observed between their clients' answers to the EPDS and their demeanor, appearance, and behavior. Although women denied any depressive symptoms in the EPDS, according to the nurses, they showed clear signs of depression in their presentations and interactions with the nurses. In fact, the nurses recognized that many of the women they served were depressed by simple observation of vegetative signs and other behaviors.

This corresponds with the first stage of "noticing" in Tanner's (2006) clinical judgment model. In this stage the nurse notices a change in the clinical situation that demands attention. Noticing is a function of the nurse's expectations of the situation that stem from nurse's knowledge of the particular patient, and clinical or practical knowledge of similar patients, drawn from experience. The observation made by the nurses at this point reflects what Tanner (2006) calls "reflection-in-action," the ability to "read" the patient—how he or

she is responding to the nursing intervention—and adjust the interventions based on that assessment. The research team had two choices: Assume that the nurses were simply implementing the scale incorrectly and retrain, or try to develop a mutually acceptable solution that respected the idea that the scale could be fallible. The team consulted the literature more carefully and chose the latter response.

Indeed there is empirical support for some uncertainty related to the effectiveness of the EPDS – particularly with certain low income populations. Chaudron et al. (2010) examined the sensitivity and accuracy of the EPDS (and two other screening tools) among urban, low-income, black mothers. They found that with traditional cutoff scores the measure did not perform at the expected levels of sensitivity and accuracy: optimal cutoff scores were lower than currently recommended. A recent study by Tandon, Cluxton -Keller, Leis, Huynh-Nhu and Perry (2012) reached a similar conclusion. Similar to Chaudron et al. (2010) they found that sensitivities were improved when using cutoffs lower than those considered standard by instrument developers. They concluded that although the EPDS (and two other examined) is reliable providers using it should consider using lower cutoff scores to most effectively identify women in need of depression treatment.

Problem-solving phase

The nurses' impression that, "the EPDS is not culturally relevant to this population" seemed consistent with some of the concerns raised in the literature. This stage in the process reflects the second stage in Tanner's model: interpreting and responding, that is nurses' interpreting the meaning of the data and determining an appropriate course of action, where usually interpretive or diagnostic hypotheses are generated. The process of "reflection-on-action" (Tanner, 2006), that is, reflection of practice in the field, enabled us (nurses and research team) to identify two potential areas of concern: the English language and the indicators of depression used in the EPDS.

The language used.—The EPDS was originally written in English, but it was developed in Scotland and uses a different vernacular. It appeared that language and terms that were commonly used and accepted in Scotland was foreign to poor urban setting in the United States. For example, the nurses reported that when they asked question six, "Things have been getting on top of me," their clients often responded with a blank expression and asked for clarification, since this vernacular expression was unknown to them.

Indicators of depression.—The EPDS was developed for and tested with mothers who were in a different social and economic setting than the mothers in the present study (Cox, Holden, & Sagovsky, 1987). Mothers who had their basic needs met would likely have different experiences than low income mothers struggling economically. Therefore, questions that asked if participants felt worried "for no good reason," were appropriate for this initial population, but may be inappropriate for a socially disadvantaged population. For example, the nurses thought that some questions such as, "I have been anxious or worried for no good reason," or, "I have been scared or panicky for no good reason," disregarded the socio-economic situation of the agency's clientele. Most of the agency's clients face

economic hardship and/or live in unsafe neighborhoods, and thus a client would not agree with the statement because she considered she was worried or anxious for good reason.

While prior studies had suggested lowering the score, there was no clear guidance on what cutoff would be appropriate. An alternative response was developed to allow nurses to systematically employ their clinical judgment when they believed the mother's EPDS score was missing actual depression. A Checklist for the Presence of Depressive Symptoms was developed to assist the study nurses by looking for symptoms identified in the DSM-IVR (see Appendix). The Checklist had two components: the main criteria and the supporting criteria. The main criteria consisted of two items: "Depressed mood (feels sad, empty, blue)" and "Loss of interest or pleasure in doing things the person would ordinarily like to do. This includes lack of interest in their infant." If the study nurse observed either of the two criteria in a client, she turned to the supporting criteria to see if there were more observable signs of depression. The supporting criteria section asked the nurse to evaluate the participant's physical changes, such as weight fluctuations, physical agitation, sleep patterns, and energy level; and the participants' mental/emotional capabilities, such as feelings of guilt and inability to think. Since pregnant and postpartum women go through many changes, the Checklist asked the nurse to use her professional judgment to differentiate between normal changes and signs of depression. The use of the Checklist allowed for the study nurses' clinical judgment to be used in addition to or in place of the EPDS in cases where it did not resonate with the target population.

Further revisions and eventual reliance on the standardized tool

Although the Checklist was more readily used by the nurses, the identification of depression still seemed quite low. In further discussions it became apparent that the nurses were uncomfortable with psychiatric vocabulary used in the Checklist. As mentioned, all the study nurses were highly experienced in the field of child and maternal health rather than in psychiatric or mental health. In order to facilitate the nurses' comfort with the Checklist, the research team opened an interactive dialogue with them to discuss clients' specific observable behaviors that the nurses, with their deep knowledge of clients' culture and environment, identified as signs of depression instead of using a psychiatric terminology. For example, for the item "loss of interest or pleasure in doing things," the nurses identified specific behaviors such as not showering, not wearing proper undergarments, not doing their hair, or not picking up a crying infant. Nurses were encouraged to use these specific examples to identify if the mother lost interest in doing things after the first asked the more general question to the mother.

Other refinements related to stigma. The nurses reported that admitting depression was perceived by some of the mothers as "showing weakness" and thus not acceptable; neither was expressing sadness or frustration. But it was more acceptable for clients to admit to feelings of anger, stress or exhaustion. Therefore, during home visits with a potential participant, if the client discussed or showed anger or exhaustion, the nurse was encouraged to do some extra probing for depression. In other words, even though those words by themselves did not indicate depression, the nurses were encouraged to investigate these feelings and their roots. By taking into account the culture and value system of the clients,

the front line practitioners were able to enhance their visualization of how depression manifests in this specific population.

Once these changes were made, nurses reported greater satisfaction with the checklist which ultimately had an interesting unintended consequence. As nurses became more comfortable with the screening they became more comfortable merely probing or altering words in the EPDS itself.

After the pilot study ended and a subsequent RCT study was launched to examine the effectiveness of the intervention for depression, we found that the nurses no longer felt the need to use the Checklist—although several mentioned feeling more confident having that as a backup if cases appeared borderline.

Conclusion

Using EBP is important to assure that the current best evidence is used in making decisions about the care of individual patients (Barth, 2008; Rousseau, & Gunia, 2016; Sackett et al., 1996). While the use of clinical judgment in the selection of treatment modality has been studied, to our knowledge the role of respecting clinical judgment in the adaptation of assessment methods has not been explored. The collaborative process described here began with nurses noticing discrepancy between expected outcomes (mothers diagnosed with postpartum depression) and actual results of EPDS (mothers unidentified with postpartum depression); continued with interpreting and analyzing this discrepancy and responding to it by adjusting to the language and cultural norms of the target population, leading to the development of complimentary list of depression symptoms to capture the true mental health needs of the mothers served by the nurses. The final result of the nurses feeling comfortable using only the EPDS was unanticipated and deserves further investigation. Chaffin and Friedrich (2004) commented that EBP means that practice must become more like research and research must become more like practice. The current study illustrates the process of how integrating the clinical practice of the nurses altered the initial research process which then in turn eventually altered practice.

Screening postpartum depression among low socioeconomic mothers is highly important given the high rate of postpartum depression reported among low income mothers (Muzik & Borovsha, 2010; Chaudron et. al., 2010). Nurses and other home visitation professionals are in an important position for identifying postpartum depressed mothers since they have more contact with new mothers (Segre, O'Hara, Arndt, & Beck, 2010). However, non-mental health practitioners may not always feel comfortable with scales developed outside their practice experience. Similar to the conclusion of Zayas and colleagues (2011), the experience in the pilot study suggests that the best course of action may be to neither strictly adhere to existing EBPs or give up on implementation and rely solely on clinical wisdom. The interactive process between the nurses and our research team and respecting nurses' field experience and judgment were key in the process of uptake of EPDS (Tonelli, M., & Guyatt, 2017).

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Appendix

Checklist for the Presence of Depressive Symptoms

Adapted from the DSM IV criteria for clinical depression

Use this checklist to document symptoms of depression.

STEP 1. Determine if the client demonstrates one or both of the bolded items.

STEP 2. Check off as many of the other indications of depression-based on your observation and judgment. These are based on your observation or knowledge of symptoms today or in past two weeks.

Scoring: Add up the number of criteria you mark as present. If the woman presents with at least 1 bolded and 4 additional symptoms of depression, ask for her assent to be contacted by the study team.

- Depressed Mood (feels sad, empty, blue)**
- Loss of interest or pleasure in doing things the person would ordinarily like to do.** This includes lack of interest in their infant. _____
- A reduction or gain in more than 5% of body weight (not attributable to pregnancy/postpartum status) OR marked increase or decrease in daily appetite over the past two weeks. (Use your judgment as this criterion is difficult to judge during pregnancy and the postpartum period);
- Insomnia or Hypersomnia almost every day (Use your judgment);
- Psychomotor agitation or retardation almost every day;
- Fatigue or loss of energy every day (Use your judgment);
- Feelings of worthlessness, or excessive or inappropriate guilt almost every day
- Reduction in the woman's ability to think, concentrate, or make simple decisions almost every day
- Other: _____

- Thoughts of death or suicidal feelings-Follow Nurses for Newborns Suicide protocol

(The Checklist was developed by Professor Lewis Zayas, clinical psychologist, the former Principle Investigator of the grant).

References

- Abidin R (1995). *Parenting Stress Index: Professional Manual* (3rd ed). Psychological Assessment Resources Inc Florida.
- Abrams LS, Dornig K, & Curran L (2009). Barriers to service use for postpartum depression symptoms among low-income ethnic minority mothers in the United States. *Qualitative Health Research*, 19, 535–551. [PubMed: 19299758]
- Alfaro-LeFevre R (1995). *Critical thinking in nursing: A practical approach*. Philadelphia, PA: WB Saunders.
- Ammerman R, Putnam F, Chard K, Stevens J, & Van Ginkel J (2011). PTSD in depressed mothers in home visitation. *Psychology Trauma: Theory, Research, Practice, & Policy*. Advance online publication. doi:10.1037/a0023062
- Anderson C, Robins C, Greeno C, Cahalane H, Copeland V, & Andrews R (2006). Why lower income mothers do not engage with the formal mental health care system: perceived barriers to care. *Qualitative Health Research*, 16(7), 926–943. [PubMed: 16894224]
- Barth RP (2008). The move to evidence-based practice: How well does it fit child welfare services?. *Journal of Public Child Welfare*, 2(2), 145–171.
- Brennan PA, Hammen C, Andersen MJ, Bor W, Najman JM, & Williams GM (2000). Chronicity, severity, and timing of maternal depressive symptoms: relationships with child outcomes at age 5. *Developmental Psychology*, 36, 759–766. [PubMed: 11081699]
- Brown CE, Wickline M, Ecoff L, & Glaser D (2009). Nursing practice, knowledge, attitudes and perceived barriers to evidence-based practice at an academic medical center. *Journal of Advanced Nursing*, 65(2), 371–381. [PubMed: 19040688]
- Brugha TS, Morrell CJ, Slade P, & Walters SJ (2011). Universal prevention of depression in women postnatally: cluster randomized trial evidence in primary care. *PsycholMed*, 41(4), 739–48.
- Buist AE, Barnett BE, Milgrom J, Pope S, Condon JT, Ellwood DA, Boyce PM, Austin MP, & Hayes BA (2002). To screen or not to screen – that is the question in perinatal depression. *Medical Journal of Australia*, 177, 101–105.
- Campbell SB, Brownell CA, Hungerford A, Spieker SJ, Mohan R & Blessing JS (2004). The course of maternal depressive symptoms and maternal sensitivity as predictors of attachment security at 36 months. *Development and Psychopathology*, 16, 231–252. [PubMed: 15487594]
- Chaffin M, & Friedrich B (2004). Evidence-based treatments in child abuse and neglect. *Children and youth services review*, 26(11), 1097–1113.
- Chaudron LH, Szilagyi PG, Tang W, Anson E, Talbot NL, Wadkins HI Yu X, Wisner LK (2010). Accuracy of depression screening tools for identifying postpartum depression among urban mothers. *Pediatrics*, 125(3), 609–617.
- Cox JL, & Holden J (2003). *Perinatal mental health: A guide to the Edinburgh Postnatal Depression Scale (EPDS)*. Gaskell, London.
- Cox JL, Holden JM, & Sagovsky R (1987). Detection of postnatal depression. development of the 10-item Edinburgh postnatal depression scale. *The British Journal of Psychiatry*, 150, 782–786. [PubMed: 3651732]
- Cummings GG, Estabrooks CA, Midodzi WK, Wallin L, & Hayduk L (2007). Influence of organizational characteristics and context on research utilization. *Nursing Research*, 56(4S), S24–S39. [PubMed: 17625471]
- Deal LW, & Holt VL (1998). Young maternal age and depressive symptoms: Results from the 1988 National Maternal and Infant Health Survey. *American Journal of Public Health*, 88, 266–270. [PubMed: 9491019]
- Dennis C (2005). Psychosocial and psychological interventions for prevention of postnatal depression: systemic review. *British Medical Journal*, 331,15–18. [PubMed: 15994688]
- Dennis CL (2004). Treatment of Postpartum Depression, Part 2: A Critical Review of Nonbiological Interventions. *Journal of Clinical Psychiatry*, 65, 1252–1265. [PubMed: 15367054]
- DiCenso A, Cullum N & Ciliska D (1998) Implementing evidence-based nursing: Some misconceptions. *Evidence-Based Nursing*, 1, 38–40.

- Duggan A, Berlin L, Cassidy J, Burrell L, & Tandon D (2009). Examining maternal depression and attachment insecurity as moderators of the impacts of home visiting for at-risk mothers and infants. *Journal of Consulting and Clinical Psychology*, 77(4), 788–799. [PubMed: 19634970]
- Estabrooks CA, Floyd JA, Scott-Findlay S, O’Leary KA & Gushta M (2003). Individual determinants of research utilization: A systematic review. *Journal of Advanced Nursing* 43, 506–520. [PubMed: 12919269]
- Evidence-Based Medicine Working Group. (1992). Evidence-based medicine. A new approach to teaching the practice of medicine. *Jama*, 268(17), 2420. [PubMed: 1404801]
- Fink R, Thompson CJ, & Bonnes D (2005) Overcoming barriers and promoting the use of research in practice. *Journal of Nursing Administration* 35, 121–129. [PubMed: 15761309]
- Funk SG, Champagne MT, Wiese RA, & Tornquist EM (1991). Barriers to using research findings in practice: The clinician’s perspective. *Applied Nursing Research*, 4, 90–95. [PubMed: 1741642]
- Gibbs LB (2003). *Evidence-based practice for the helping professions*. Pacific Grove, CA: Brooks/Cole and Thomson Learning.
- Glavin K, Smith L, Sørum R, & Ellefsen B (2010). Redesigning community postpartum care to prevent and treat postpartum depression in women – a one year follow up study. *Journal of Clinical Nursing*, 19, 3051–62. [PubMed: 20726926]
- Goodman JH (2009). Women’s attitude, preferences and perceived barriers to treatment for perinatal depression. *Birth*, 36(1), 60–69. [PubMed: 19278385]
- Goodman JH, & Tyer-Viola L (2010). Detection, treatment, and referral of perinatal depression and anxiety by obstetrical providers. *Journal of Women Health*, 19, 477–490.
- Gordon TE, Cardone IA, Kim JJ, Gordon SM, & Silver RK (2006). Universal perinatal depression screening in an Academic Medical Center. *Obstetrics & Gynecology*, 107, 342–347. [PubMed: 16449122]
- Grace SL, Evidar A, & Stewart DE (2003). The effect of postpartum depression on child cognitive development and behavior: A review and critical analysis of the literature. *Archives of Women’s Mental Health*, 6, 263–274.
- Halbreich U, & Karkun S (2006). Cross-cultural and social diversity of prevalence of postpartum depression and depressive symptoms. *Journal of Affective Disorders*, 91, 97–111. [PubMed: 16466664]
- Hammen C, & Brennan PA (2003). Severity, chronicity, and timing of maternal depression and risk for adolescent offspring diagnoses in a community sample. *Archives of General Psychiatry*, 60, 253–258. [PubMed: 12622658]
- Hay DF, Pawlby S, Angold A, Harold GT, & Sharp D (2003). Pathways to violence in the children of mothers who were depressed postpartum. *Developmental Psychology*, 39, 1083–1094. [PubMed: 14584986]
- Hildyard K, & Wolfe D (2007). Understanding child neglect: Cognitive processes underlying neglectful parenting. *Child Abuse & Neglect*, 31, 895–907. [PubMed: 17804068]
- Horowitz JA, Murphy CA, Gregory KE, & Wojcik J (2011). A community-based screening initiative to identify mothers at risk for postpartum depression. *Journal of Obstetric Gynecologic & Neonatal Nursing*, 40, 52–61.
- Howard KS, & Brooks-Gunn J (2009). The role of home-visiting programs in preventing child abuse and neglect. *The Future of Children*, 19(2), 119–46. [PubMed: 19719025]
- Kajermo KN, Nordström G, Krusebrant Å & Björvell H (1998). Barriers to and facilitators of research utilization, as perceived by a group of registered nurses in Sweden. *Journal of Advanced Nursing*, 27, 798–807. [PubMed: 9578211]
- Kendall-Tackett KA (2005). *Depression in new mothers: causes, consequences, and treatment alternatives*. New York: Haworth Maltreatment and Trauma Press.
- Lanes A, Kuk JL, & Tamim H (2011). Prevalence and characteristics of Postpartum Depression symptomatology among Canadian women: a cross-sectional study. *BMC Public Health*, 5 11.
- Liu CH, Giallo R, Doan SN, Seidman LJ, & Tronick E (2016). Racial and ethnic differences in prenatal life stress and postpartum depression symptoms. *Archives of Psychiatric Nursing*, 30(1), 7–12. [PubMed: 26804495]

- McLearn KT, Minkovitz CS, Strobino DM, Marks E, & Hou W (2006). Maternal depressive symptoms at 2 to 4 months postpartum and early parenting practices. *Archives of Pediatrics & Adolescent Medicine*, 16, 279–284.
- Morrell CJ, Warner R, Slade P, Dixon S, Walters S, Paley G, & Brugha T (2009). Psychological interventions for postnatal depression: cluster randomized trial and economic evaluation. The PoNDER trial. *Health Technology Assessment*, 13(30), 1–155.
- Murray L, & Cooper PJ (1997). Postpartum depression and child development. *Psychological Medicine*, 27, 253–260. [PubMed: 9089818]
- Muzik M, & Borovsha S (2010). Perinatal depression: implications for child mental health. *Mental Health in Family Medicine*, 7, 239–47. [PubMed: 22477948]
- Newman M, Papadopoulos I & Sigsworth J (1998) Barriers to evidence-based practice. *Intensive & Critical Care Nursing*, 14, 231–238. [PubMed: 9849236]
- O’Hara MW (1997). The nature of postpartum depressive disorders In Murray L, & Cooper PJ (Eds.), *Postpartum depression and child development* (pp. 3–31). New York: The Guilford Press.
- O’Hara MW, & Swain AM (1996). Rates and risk of postpartum depression - a meta-analysis. *International Review of Psychiatry*, 8(1), 37–54.
- Parahoo K (2000). Barriers to, and facilitators of, research utilization among nurses in Northern Ireland. *Journal of Advanced Nursing*, 31, 89–98. [PubMed: 10632797]
- Raue P, & Schulberg HC (2005). Psychotherapy and patient preferences for the treatment of major depression in primary care. Focus on psychotherapy research. Nova, Hauppauge, 139–158.
- Retsas A (2000) Barriers to using research evidence in nursing practice. *Journal of Advanced Nursing*, 31, 599–606. [PubMed: 10718879]
- Rohrbach S (1993). Healthy from the start. Home care for newborns. *Caring: National Association for Home Care magazine*, 12(12), 13–15. [PubMed: 10130216]
- Rousseau DM, & Gunia BC (2016). Evidence-based practice: the psychology of EBP implementation. *Annual Review of Psychology*, 67, 667–692.
- Sackett DL, Rosenberg WM, Gray JA, Haynes RB, & Richardson WS (1996). Evidenced-based medicine: What it is and what it isn’t. *British Medical Journal*, 312, 71–72. [PubMed: 8555924]
- Sackett DL, Straus SE, Richardson WS, Rosenberg W, & Haynes RB (2000). *Evidence-based medicine: How to practice and teach EBM*. Edinburgh: Churchill Livingstone.
- Sandelowski M, & Barroso J (2003). Writing the proposal for a qualitative research methodology project. *Qualitative Health Research*, 13(6), 781–820. [PubMed: 12891715]
- Segre LS, O’Hara MW, Arndt S, & Beck CT (2010). Nursing care for postpartum depression, part 1: do nurses think they should offer both screening and counseling? *American Journal of Maternal Child Nursing*, 35(4), 220–225. [PubMed: 20585212]
- Smith-Nielsen J, Tharner A, Steele H, Cordes K, & Væver MS (2016). Postpartum depression and infant-mother attachment at one year. In 15th World Congress of the World Association for Infant Mental Health.
- Stavor DC, Zedreck-Gonzalez J, & Hoffmann RL (2017). Improving the use of evidence-based practice and research utilization through the identification of barriers to implementation in a critical access hospital. *Journal of Nursing Administration*, 47(1), 56–61. [PubMed: 27926624]
- Tandon SD, Cluxton-Keller F, Leis J, Huynh-Nhu L, & Perry DF (2012). A comparison of three screening tools to identify perinatal depression among low-income African American women. *Journal of Affective Disorders*, 136, 155–162. [PubMed: 21864914]
- Tanner CA (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *Journal of Nursing Education*, 45(6), 204–211. [PubMed: 16780008]
- Tanner CA (2006). Thinking like a nurse: A research-based model of clinical judgment in nursing. *Journal of Nursing Education*, 45 (6), 204–211. [PubMed: 16780008]
- Teti DM, Gelfand DM, Messinger DS, & Isabella R (1995). Maternal depression and the quality of early attachment: an examination of infants, preschoolers, and their mothers. *Developmental Psychology*, 31, 364–376.
- Tonelli M, & Guyatt G (2017). The role of experience in an evidence-based practice. *The Medical Roundtable General Medicine Edition*.

- U.S. Dept. of Health & Human Services Health Resources & Services Administration, Bureau of Primary Health Care. (1996). *Models that work: compendium of innovative primary health care programs for underserved and vulnerable populations 1996*. Bethesda, MD: Author.
- Victor-Chmil J (2013). Critical thinking versus clinical reasoning versus clinical judgment: Differential diagnosis. *Nurse Educator*, 38(1), 34–36. [PubMed: 23222632]
- Wallin L, Ewald U, Wikblad K, Scott-Findlay S, & Arnetz BB (2006) Understanding work contextual factors: A short-cut to evidence-based practice. *Worldviews on Evidence-Based Nursing*, 3, 153–164. [PubMed: 17177929]
- Watson JM, & Kemper KJ (1995). Maternal factors and child's health care use. *Social Science and Medicine*, 40, 623–628. [PubMed: 7747197]
- Yonkers KA, Ramin SM, Rush AJ, Navarrete CA, Carmody T, March D, et al. (2001). Onset and persistence of postpartum depression in an inner-city maternal health clinic system. *American Journal of Psychiatry*, 158(11), 1856–1863. [PubMed: 11691692]
- Zayas LH, Drake B, & Jonson-Reid M (2011). Overrating or dismissing the value of evidence-based practice: Consequences for clinical practice. *Clinical Social Work Journal*, 39, 400–405.