KNOWLEDGE DISSEMINATION OF A QUALIATIVE STUDY IN PERINATAL AND TRAUMA INFORMED CARE: CARING FOR TRAUMA IMPACTED WOMEN THE "WRIGHT WAY"

by

ALAINA ELIZABETH PIRIE

Bachelor of Science in Nursing, Okanagan University College, 2005

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Abstract

The objective of this review is to examine the current literature relating to the topic of trauma informed care in the perinatal setting. The literature was critically appraised and themes were identified. The findings may be applied to implications for practice for the nurse practitioner and other providers of perinatal care. Knowledge gaps have been identified as well as future research recommendations. The current literature indicates the following necessary requirements for applying a trauma informed approach to the perinatal setting; acknowledgment of the prevalence of trauma and its effects, the integrated expansion of women's services and involvement of women in program development, implementation and evaluation. Trauma informed care has recently emerged as framework in the perinatal setting. It may provide positive outcomes for clients as well as providers with the goal of improving health outcomes for trauma impacted women and their families. There are many knowledge gaps of trauma informed care in the perinatal setting in addition to the lack of training available to perinatal providers. Providing trauma informed care in the perinatal setting may change the way providers see and work with their clients and improve health outcomes. The outcome of this literature review is to identify the current state of knowledge in the field of trauma informed care, women and its application in the perinatal setting. Lastly, an article for publication will be written for a target audience of perinatal care providers offering practical methods on how to apply the trauma informed framework in the perinatal setting.

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Knowledge Dissemination of a Qualitative Study in Perinatal and Trauma Informed Care: Caring for Trauma Impacted Women the "Wright Way"

Trauma informed care is a relatively new framework for healthcare service delivery. The framework was initially developed for application in mental health and addiction services. Trauma informed care in the perinatal setting shows promising relevance as healthcare providers begin to recognize the prevalence and effects of trauma in women of childbearing age. Applying trauma informed care to the perinatal setting may lead to positive health related outcomes for both mother and child, prevent retraumatization of the client and improve morale of perinatal staff.

The objective of this literature review is to critically appraise current literature as it relates to trauma-informed care, women and the application of trauma-informed care in the perinatal period. For this review, articles that focused on care providers as well the client were included. The selected literature was critically analyzed to synthesize and interpret findings. The findings will be then applied to implications for future practice in the perinatal setting. These implications will be further applied to the practice of the Nurse Practitioner (NP). Knowledge gaps in research will be identified and recommended areas for future research will be made. After a thorough review of the current literature, an article for publication in a peer reviewed journal will be written for a target audience of perinatal care providers. The article will offer practical methods on how to apply the trauma informed framework in the perinatal setting.

Article for Publication in a Peer Reviewed Journal

In 2015, a qualitative study entitled "Understanding the Journey of Marginalized Pregnant Women in Surrey When Accessing Healthcare: A Qualitative Study" was conducted at the Maxine Wright Health Center (MWHC) in Surrey, BC. The study implemented a

phenomenological design with an objective to understand the lived experience of trauma impacted pregnant woman with receiving healthcare. The study identified many barriers, as well as facilitators, to receiving safe, compassionate and competent care. A goal of the study was the knowledge translation (KT) of the study outcomes. The dissemination of new knowledge is an important aspect of health research. The goal of health research is to increase the effectiveness of healthcare services and strengthen the healthcare system (Canadian Institute of Health Research, 2016). The dissemination of outcomes obtained from the study at MWHC will increase the awareness of the effects of trauma, the trauma informed framework and how to apply the framework in the perinatal setting.

An article for publication will be submitted to the peer-reviewed journal *Nursing for Women's Health*. The article will be written in collaboration with staff from the Maxxine Wright Health Center (MWHC). The article's main objectives include; the knowledge dissemination of the unpublished study completed at MWHC, to educated perinatal staff on the prevalence and impact of trauma, how to become "trauma-informed," and the role of trauma informed care in the perinatal setting. The title of the article will be "The Use of Women's Lived Experience to Inform Care in the Perinatal Setting: Caring for Trauma Impacted Women the "WRIGHT Way"."

Background

Trauma is defined as an event or response to an event that creates overwhelming fear, helplessness or horror. Trauma can be a result of violence, witnessing violence or stigmatization associated with race, gender, poverty or sexual orientation (Covington, 2008). There is compelling evidence associating women's substance use to a history of trauma (Elliot, Bjelajac, Fallot, Markoff & Reed, 2005; Marcellus, 2014). Women with histories of trauma are more

likely to experience additional issues to mental health such as mood and affective disorders, personality disturbances, and posttraumatic stress disorder (Elliot et al., 2005). The publication *Gendering the National Framework: Trauma-informed Approaches in Addictions Treatment* cites 67% of women with substance use disorder report a co-occurring mental health issue and "virtually all women with co-occurring disorders have a trauma history" (British Columbia Center of Excellence for Women's Health, 2009, p. 2). Additionally, 20% of pregnant women report a history of trauma and 10% of pregnant women meet criteria for posttraumatic stress disorder (Choi & Seng, 2015). Furthermore, trauma survivors are at increased risk for retraumatization and revictimization later in life (Covington, 2008; Elliot et al., 2005; Marcellus, 2014).

Trauma Informed Care Framework

Trauma informed care is a service delivery framework that changes the paradigm of how we relate to trauma, mental health and substance use disorders. A trauma informed philosophy reframes the question "What's wrong with you?" to "What happened to you?" (British Columbia Center of Excellence for Women's Health, 2009; Substance Abuse and Mental Health Services Administration, 2011). Additional aspects of the trauma informed framework include; an understanding of the prevalence and effects of trauma, integration of this knowledge into every aspect of service delivery, and understanding that maladaptive behaviors such as substance use is an attempt to cope with traumatic experiences. Furthermore, disclosure and treatment of trauma is not required. Rather, care is adapted to meet the woman where she is in the recovery process and an emphasis is made at preventing retraumatization (British Columbia Center of Excellence for Women's Health, 2009).

In the perinatal setting, there is evidence that a woman's global experience with birth and the quality of provider interactions is linked to perinatal trauma symptoms and clinical depression (Makoul, Zick & Green, 2007; Sorenson, 2003; Stadylmayr et al., in Sorenson & Tschetter, 2010). Providers that interact with patients in a disaffirming manner causes diminished "self-confidence and self-image, culminating in perinatal trauma, psychological vulnerability, and subsequent length and severity of immediate postpartum and long-term depression" (Beck, 2004; Creedy, Shochet & Horsfall, 2000; Czarnocka & Slade, 2000; Ingram, 2003 in Sorenson & Tschetter, 2010, p. 16). Additionally, many obstetrical procedures are intimate and intrusive; thus, intensifying feelings of helplessness and entrapment and further placing a woman at risk for depression and retraumatization (Mezey, Bacchus, Bewley & White, 2005). Recently, there has been a significant shift in mental health and addiction services that acknowledge the impact of trauma and violence on women and their children (Elliot et al., 2005). However, trauma informed care has only recently been applied as a framework of care in the perinatal setting. Training and resources for perinatal providers has not yet been established (Choi & Seng, 2015).

The foundation of trauma informed care is understanding the impact of violence on a person's life (Elliot et al., 2005). Covington (2008) asserts that knowing about trauma and its effects may change the way providers of care see and work with their clients, improving health outcomes for women and their families. Perinatal providers receive little to no training regarding mental health and substance use disorder (Choi & Seng, 2015). Subsequently, it is not surprising that studies on the experiences of nurses caring for families affected with substance use disorder have indicated that nurses experience feelings of distress, frustration, resentment, anger and inadequacy. In addition, adverse perinatal outcomes associated to mothers with posttraumatic

stress disorder include; low birth weight, pre-term birth, adverse maternal outcomes and impaired bonding (Choi & Seng, 2015). Addressing histories of trauma in the perinatal period can improve quality patient care. Women and their families may experience decreased adverse health outcomes, decreased stress and anxiety, and an increased sense of safety (Marcellus, 2014). Perinatal providers may experience increased positive relationships with clients, decreased stress, anxiety, vicarious trauma (Marcellus, 2014).

Search Process

A search of peer-reviewed journal articles was completed in December 2016 using three bibliographic databases; CINAHL complete, MEDLINE and PubMed. A title keyword search of "trauma informed care," combined with either "pregnancy" or "perinatal" was utilized. The literature covered articles from an eleven-year period ranging from 2005 to 2016. With this search, thirty-four results were obtained. The search was then expanded to include a title search of "trauma informed care" and "women" during the same time-period. With this search, eighty-three results were obtained. Abstracts of the publications were reviewed for eligibility. Multiple titles from the same author were identified to avoid duplication. In addition, the references of eligible manuscripts were searched for additional, potentially important publications for inclusion in the literature review.

Critical Appraisal of Literature

In total, eleven manuscripts were appraised. Peer-reviewed articles on trauma informed care and women were included. The articles chosen were primarily from the perinatal care setting. This included antepartum, labor and delivery or postpartum care settings. Due to the lack of scope in the current literature, articles set in women's drug and alcohol recovery centers were also included. Relevant manuscripts were reviewed and mapped using a literature review

matrix with a process outlined by Garrard (2011) including seven topics; author and date, theoretical and conceptual framework, research questions and hypotheses, methodology, analysis and results, conclusions, implications for future research and implications for practice (Table 1). Upon reviewing the literature, key themes, issues and common limitations emerged.

Issues

Of the eleven articles reviewed, two articles were literature reviews, one article was a narrative single-access program overview, five were qualitative studies, two were quantitative studies and one article was a mixed method qualitative and quantitative study. Three of the articles were studies based upon data from the Women, Co-occurring Disorders, and Violence Study (WCDVS). The WCDVS was conducted over five years at nine different sites across the United States (US) with the objective of evaluating new service models for women with co-occurring mental health, substance use disorders and a history of trauma (McHugo et al., 2004).

The two literature reviews explored the current state of knowledge of trauma-informed care. One article was particularly focused on the clinical application of trauma informed care to the neonatal intensive care unit (NICU) setting. The other literature review focused on the dissemination of evidenced-based treatment assisting health care providers caring for pregnant and postpartum women with opioid use disorder. One article provided an overview of four specialized programs in Canada that serve the healthcare needs of pregnant and early parenting women who are affected by substance use disorder.

Of the qualitative studies, three of the five studies employed a phenomenological approach as they sought to understand women's lived experience. The first study's objective was to understand the healthcare preferences of trauma-exposed women in the early postpartum period. A second sought to understand how women with histories of violence view and

participate in their own healing process and how treatment systems improve interaction to support women in recovery. The final article examining the women's lived experience sought to understand the "perspectives of trauma and gender-based violence in women who lived in an impoverished neighborhood and struggled with substance use disorder during pregnancy and early motherhood" (Torchalla, Linden, Strehlau, Neilson & Krausz, 2015, p. 1). The final qualitative studies used data from a variety of sources such as consumers, clinicians and administrators to develop recommendations and principles for implementing trauma informed services for women who are trauma impacted with co-occurring mental health and substance use disorders.

Of the quantitative studies, one examined the effectiveness of a trauma informed approach to treating women impacted by trauma with co-occurring mental health and substance use disorders, while the second quantitative article utilized data to illustrate the effectiveness and need for women's service programs to be gender-responsive and trauma informed. The final article was a mixed method design study investigating the development, implementation and evaluation of a trauma informed training program specifically designed for providers of perinatal care.

Methodology

The articles utilized a variety of research methodologies, methods and strategies. The articles consisted of two literature reviews, one narrative program overview, five qualitative studies, three quantitative studies and one mixed method approach. Only one literature review described the methodology the authors used to complete the review.

The authors of the literature review described three sources informing the review; the current literature on opioid use disorder among United States (US) women, existing legislation

on substance use in pregnancy and available treatment options for pregnant women with substance use disorder. The narrative program overview employed the authors' personal experiences in the development and evaluation of the programs.

The qualitative studies utilized a variety of methods to obtain results. These methods included qualitative interviews, series of in-depth interviews, semi-structured interviews, site visits, interviews with key informants, and workgroups. The studies also implemented a variety of screening tools to obtain data including the Post Traumatic Stress Disorder (PTSD) module, Postpartum Depression Screening Scale and the Childhood Trauma Questionnaire. The sample size of participants ranged from eighteen to two thousand six participants. The data collection time ranged from one interviewing session to a longitudinal design utilizing several sessions over a five-year period.

The quantitative studies employed pre/posttest and quasi-experimental nonequivalent control group design. Sample sizes ranged from 157 to 402 participants. The study employing a mixed method approach used a single-group, pretest-posttest design and had a sample of 47 participants.

Results

The qualitative studies applied content analysis through grounded theory which included coding common themes, constant comparative approach and N-Vivo open coding to identify themes. The quantitative studies employed descriptive statistics and ANOVA testing.

All studies focused on trauma informed care in the clinical setting as it applied to either women, pregnant women or women in early motherhood who were trauma impacted with co-occurring substance use disorders with or without mental health disorders. Common themes contained in the articles included; acknowledgement of the prevalence of trauma and the impact

on women's lives, the need for the expansion of women's services to be trauma informed, integrated and multilevel, and women themselves should be involved in every step of program planning, implementation and evaluation of programs.

Prevalence of trauma. All the articles highlighted the prevalence and effects of trauma on women's lives and the relationship of trauma, substance use disorder and mental health. For women, there is a strong relationship between a history of trauma and the development of substance use disorder (Covington, Burke, Keaton and Norcott, 2008). For example, women seeking harm reduction services in the Down Town East Side (DTES) of Vancouver, Canada, reported having experienced multiple and severe early childhood adversities. These experiences develop into complex patterns consisting of a series of single traumatic events and chronic stressors (Torchalla et al., 2015). Furthermore, results from the *Adverse Childhood Experiences Study* found over 50% of participants had experienced at least one traumatic event. They also reported the strong influence of trauma and its effects on the development of substance use and mental health issues in adolescents and adulthood (Marcellus, 2014).

Expansion of women's services. Several of the articles emphasized the need of women's services to be trauma-informed, integrated and accessible. The research of Gatz et al. (2007) supported the integration of comprehensive services addressing trauma-specific elements. A comprehensive approach would include services supporting substance abuse and mental health treatment in addition to medical care, parenting classes and vocational training. By experience, the single access program model has been able to effectively address the needs of pregnant women who have substance use issues by supporting early engagement and improving outcomes for maternal, fetal and child health (Nathoo et al., 2013). In addition, several authors indicated

the imperative of providers of healthcare to decrease stigma associated with substance use disorder (Covington, 2008; Elliot et al., 2005; Marcellus, 2014; Saia, 2016).

Involvement of women. Another theme prevalent throughout the literature is women themselves should be involved in every step of program planning, implementation and evaluation. According to the trauma informed care framework, the woman is an expert in her own life and engages in a provider-survivor relationship that is "collaborative rather than an expert model" (Elliot et al., p. 474). This principle can be applied to the service level where the client is involved in the design, evaluation and delivery of the services they use (Elliot et al. 2015). A resultant outcome of integrating the voices of women into program design and practice is, the environment becomes increasingly supportive and is viewed as safe by the women it serves (Marcellus, 2014). Furthermore, involving the client aids staff in recognizing trauma triggers, disempowering practices and policies (Markoff, Reed, Fallot, Elliot & Bjelajac 2005). Lastly, the client can further develop life skills, and her own voice, thus transforming her into a role model and mentor for other women in varies stages of recovery (Markoff et al. 2005).

Critical Analysis

Overall, the quality of the literature was moderate to high. Credibility of the literature was high as all the studies were published in peer-reviewed journals. In addition, all authors were affiliated with accredited universities, hospitals or national departments. The studies were individually appraised for quality, content and relevancy to practice.

Qualitative studies. The five qualitative studies and one mixed qualitative and quantitative study were appraised using the *Critical Appraisal Skills Programme (CASP) Qualitative Checklist*. The checklist involves ten questions to aid in the appraisal of research articles. In general, the literature provided evidence of valid results that contributed to the

existing body of knowledge and can be applied to the development of programs, practice and policy. The literature provided clear statements of the aims of the research and appropriately applied qualitative methodology to the research design. One study remarked that a qualitative design is necessary for the sensitive nature of the topic and the lack of available in-depth information (Torchalla et al., 2015). Two of the studies implemented a qualitative design to give a voice to marginalized women. All the authors described the methods of rigorous data analysis. The process of coding involved two or more professionals and a variety methods of analysis were utilized such as multiple readings, thematic analysis, and a four-step modified Delphi process. The Delphi process operates under the main assumption that group opinion is more valid than individual opinion (Keeney, Hasson & McKenna, 2011). The Delphi process employs multi-staged surveys among a group of experts to achieve consensus on an issue (Keeney et al. 2011). All findings were explicitly stated and discussed in relation to the original research goal as well as application to the practice setting. Ethic procedures were explained in all but two of the studies. The two studies by Markoff et al. (2005) and Elliot et al. (2005) were part of the WCDVS. The authors did remark that additional research details were described elsewhere. None of the articles examined biases in the studies as it applied to formulation of the research question, data collection or sample recruitment. Muzik et al. (2013) and Torchalla et al. (2015) discussed the limitations to qualitative methodology and the potential for lack of transferability of the study outcomes to the general population. Muzik et al. (2013) commented that their sample size of 52 participants was “broadly representative” (Muzik et al. 2013, p.10) of the characteristics of the population under study and it is not known to what extent the findings are representative of the rest of the group. Torchalla et al. (2015), remarked that the use of a small,

non-random sample and the use of a qualitative design limits generalizing and applying outcomes to the greater population.

Quantitative studies. The two quantitative studies and one mixed qualitative and quantitative study were appraised using modified criteria presented in the *McGill Mixed Methods Appraisal Tool* (MMAT). The quantitative studies were of moderate quality. None of the authors could institute a randomized control study design. Two studies utilized pretest/posttest design, a variant of the quasi-experimental design. This type of study lacked randomization and a control group, therefore decreasing the internal validity. One study utilized a quasi-experimental nonequivalent design. Quasi-experimental designs lack randomization. The studies were completed in a natural setting, thus making randomization difficult to achieve. According to Polit & Beck (2104), quasi-experimental designs have generalizability to a broader group, although the results may be less definite. Therefore, external validity of quasi-experimental studies maybe high, while internal validity will be low, as compared to a random control trail (RCT) design.

All the studies used a variety of valid and standardized instruments to measure data such as the Beck Depression Inventory (BDI) and the Addiction Severity Index for Females (ASIF). The BDI was developed by Dr. Aaron T. Beck at the University of Pennsylvania and the ASIF by the Treatment Research Institute. A limitation to the validity of such tools is that they rely on self-reports. Clients with mental health issues have shown instability with self-reporting often omitting data or misunderstanding and confusing items (Zanis, McLellan, & Corse, 1997).

Participant selection bias was a limitation for all the studies as participants were either self-selected, referred or not randomly assigned to a treatment group, therefore again affecting randomization and internal validity. One study acknowledged that women with histories of

trauma with co-occurring disorders are characteristically difficult to follow therefore difficult to achieve good retention rates, thus attrition is a threat (Gatz et al., 2007). At study completion only 78% of participants of the Gatz et al. study completed outcome data. According to the MMAT, an 80% rate of completion of outcome data is desired to ensure quality outcome reporting. A low outcome response rate can further attribute to bias and diminish randomization of the study, therefore negatively effecting transferability and validity of study results. (Polit & Beck, 2014).

The authors tested the effects of treatment completion by using three-way repeated ANOVA testing. One study acknowledged statistically significant findings despite a small sample size (Choi & Seng, 2015). The pretest-posttest design evaluating scores before and after an in-service training on trauma informed care in the perinatal setting reported a statistically significant difference ($p < .05$) in all four outcome measures including knowledge score, skills score, attitudes score and overall score (Choi & Seng, 2015).

Literature reviews & narrative program overview. The two literature views were moderate in quality. Both reviews clearly stated an objective, however they did not disclose what database was implemented or a search strategy. Both reviews contributed information that would be transferable to clinical practice and to the local population. Nathoo et al. (2013) provided their expert experiences to communicate successes and lessons learned in the development of four single-access programs serving Canadian women. This study is at risk for conflict of interest due to the authors' relationship to the perspective and role in data collection and reporting. This potential conflict of interest indicates an opportunity for bias in the study therefore decreasing the validity of outcomes.

By completing a critical appraisal on the current literature as it relates to trauma informed practice, women and the perinatal setting, an informed judgment may be made regarding the sufficiency, relevancy and completeness of the current body of literature. As a result, improvements to clinical practice may be implemented with the primary goal of improving patient outcomes.

Implications for Practice

Trauma-informed care recognizes the impact of a history of violence and trauma on a woman's life and applies trauma-informed principles to all aspects of service delivery to ensure safety, choice and control and prevent retraumatization and revictimization. The literature on trauma-informed care in women's' health services supports many implications that are relevant to practice. Four of the articles analyzed developed best practices, guidelines, principles and recommendations for applying trauma-informed care to practice. One article outlined key points for trauma-informed perinatal care interprofessional in-service training. There are three prevalent themes observed in the literature as it applies to trauma-informed care and implications for practice. These themes include; incorporating trauma-informed care, building partnerships and training all individuals in the system.

Incorporating Trauma Informed Care

Several authors made recommendations that support the integration of trauma-informed care into medical services for women. Service providers can integrate trauma informed care into their program (Torchalla et al., 2015). Programs that were integrated with the trauma informed framework found improved PTSD symptoms, use of coping skills, and rate of retention in treatment when compared to a comparison group (Gatz et al., 2007). Furthermore, the work of

Covington et al. (2008) discovered positive outcomes such as the reduction of trauma and depression symptoms and clients were more likely to remain in treatment.

Building Partnerships

Throughout the literature, the need for multidisciplinary services and partnerships as an aspect of providing high-quality trauma informed care is evident. Qualitative research revealed that women utilize a broad array of both informal and formal supports (Stenius & Veysey, 2005). Additional research indicates that 94% of mothers with a history of childhood maltreatment approved of the concept that quality care should include the access to a broad array of multidisciplinary, holistic, healing and well-being services (Muzik et al., 2013). The requirement of partnership is a necessity due to the chronic and pervasive nature of trauma and co-occurring mental health and addiction disorders. Women who are trauma impacted with co-occurring disorders have complex needs that concern both mother and child (Nathoo et al., 2013). The resulting partnerships are innovative and multidisciplinary. This enables a full spectrum of healthcare, intensive supports during pregnancy and sustained community-based support for new families (Nathoo, 2013). Innovative partnerships require healthcare providers to go beyond their boundaries to identify partners with expertise. These partners could include public health nurses, social workers, mental health and addiction counselors and woman abuse counselors (Marcellus, 2014).

Training All Individuals in the System

A final implication for practice identified as a theme in the literature is the training of all staff on the principles of trauma-informed care. This training is necessary to create a service shift where fidelity to trauma-informed principles of care is accomplished. Training all staff from clinicians to front desk staff is required for a complete agency shift in service delivery

(Choi and Seng, 2015; Markoff et al., 2005). Several recommendations are made in the literature to assist healthcare agencies to make a service delivery shift in their programs. Examples of integrating the trauma informed care into service delivery includes; changing the agency mission, training for all staff at every level, and examination of policies and procedures to ensure they represent the standards of trauma-informed care (Markoff et al., 2005). The initial step to creating a healthcare service that provides trauma informed care is to educate all staff from janitors, to clerical staff, to managers on the pervasiveness of trauma and violence and the complex and lasting impact on women's lives (Elliot et al., 2005).

Implications for NP Practice

The practice of NPs in British Columbia (BC) are guided by core competencies of clinical practice, research, leadership, consultation and collaboration, health promotion and prevention of illness (College of Registered Nurses of British Columbia (CRNBC), 2011). NP practice is further grounded in the five World Health Organization (WHO) principles of primary care including; accessibility, public participation, health promotion, appropriate technology and inter-sectoral collaboration (CRNBC, 2011). Therefore, the NP may incorporate the results found in the literature review as well as the identified implications for practice to develop a competent practice that is trauma informed. The NP will have a central role in leadership, advocacy and collaboration when integrating trauma informed practice into the perinatal setting.

The NP will have a primary role as leader and advocate for introducing trauma informed care into a healthcare service. With the guidance of the most up to date and evidence based practice, the NP will lead in the evaluation, education, implementation of trauma informed care programs. The NP will also serve as a valuable resource to educate others, both providers and clients on the prevalence and effects of trauma. Specific examples of how the NP may provide

education to others is through both formal and informal methods. Formal methods may include; providing in-services, lectures, or writing journal articles. Informal methods may include conversation with others, suggesting educational material or involvement in journal clubs. The NP will also take a leadership role in developing the expansion of trauma informed integrated care that is accessible and comprehensive. The "single-access program model" as described by Nathoo et al. (2013) may prove to be an effective model the NP may utilize that meets the needs of trauma impacted women in the perinatal setting. The NP will advocate for clients and ensure that their participation and voice is included in the development, implementation and evaluation of trauma informed services in the perinatal setting. Lastly, the NP can effectively build the necessary community and health service partnerships, take part in multidisciplinary collaboration and make referrals as necessary both as part of the trauma informed care framework and as providing competent care.

Implications for Further Research

Trauma-informed care has only recently been applied to the perinatal setting as a care framework. As a result, numerous implications for further research exist. However, among the literature reviewed, six of studies did not indicate implications for further research. Studies that specified the need for further research indicated a gap of knowledge in a wide variety of topics and methodologies. For instance, further qualitative research should be completed to gain a better understanding about the unique needs of the population. Also, additional attention should be applied to the development, implementation and evaluation of trauma-informed perinatal care programs. Furthermore, programs and training for trauma-informed perinatal care should be developed, implemented and evaluated for the entire care team of administrators, clinicians and support staff. Finally, there were no RCTs on the topic of trauma informed care and the perinatal

period. This absence represents a large knowledge gap as RCTs are considered the best possible design for illustrating a relationship between an intervention and outcome (Polit & Beck, 2014). Additional RCTs on the subject are indicated.

Conclusion

Trauma informed care is a new framework as it applies to the perinatal period. The framework may have many beneficial outcomes for both providers and clients. Central results for the reviewed literature include; acknowledgement of the prevalence of trauma and impact on women's lives, the need for expansion of women's services, and the imperative that the client is involved in various aspects of program development, implementation and evaluation. Significant themes identified for implications to practice include; the integration of trauma informed care into women's services and the perinatal setting, building partnerships to create a multi-level, multidisciplinary holistic service and the need to train all staff in the care system. The NP is guided by competencies and principles of practice that may be integrated with the trauma informed framework. Furthermore, the NP has a central role in providing leadership, advocacy and collaboration to deliver trauma informed care in the perinatal setting. Identified research priorities include further qualitative studies to identify needs of the population and the development and implementation of training programs in the perinatal setting. Lastly, high quality RCTs should be completed on trauma informed care and its application in the perinatal setting to ensure credibility and dependability of the care framework in the perinatal setting.

References

American Psychological Association. (2010). *Publication manual of the American Psychological Association* (6th ed.). Washington, DC: American Psychological Association.

Canadian Institutes of Health Research. (2016). *Knowledge Translation.* Retrieved from: http://www.cihr-irsc.gc.ca/e/29418.html

CASP. (2014). Critical Appraisal Skills Programme (CASP): appraisal tools. Oxford. Retrieved from: http://media.wix.com/ugd/dded87_40b9ff0bf53840478331915a8ed8b2fb.pdf

Choi, K., & Seng, J. (2015). Pilot for nurse-led, interprofessional in-service training on trauma-informed perinatal care. *Journal of Continuing Education in Nursing, 46*(11), 515-521. doi:10.3928/0022124-20151020-04

College of Registered Nurses of British Columbia (2011). *Competencies Required for Nurse Practitioners in British Columbia.* Retrieved from: https://www.crnbc.ca/Registration/Lists/RegistrationResources/416CompetenciesNPs.pdf

Covington, S. S., Burke, C., Keaton, S., & Norcott, C. (2008). Evaluation of a trauma-informed and gender-responsive intervention for women in drug treatment. *Journal of Psychoactive Drugs, 40*(sup5), 387-398. doi:10.1080/02791072.2008.10400666

Elliot, D., Bjelajac, P., Fallot, R.D., Markoff, L.S., Reed, B. (2005). Trauma-informed or trauma-denied: Principles and implementation of trauma-informed services for women. *Journal of Community Psychology, 33*(4), 461-477. doi: 10.1002/jcop.20063

Garrard, J., & EBSCOhost. (2011). *Health sciences literature review made easy: The matrix method* (3rd;3; ed.). Sudbury, MA: Jones and Bartlett Learning.

Gatz, M., Brown, V., Hennigan, K., Rechberger, E., O'Keefe, M., Rose, T., & Bjelajac, P. (2007). Effectiveness of an integrated, trauma-informed approach to treating women with co-occurring disorders and histories of trauma: The Los Angeles site experience. *Journal of Community Psychology, 35*(7), 863-878. doi:10.1002/jcop.20186

Gendering the National Framework Series (Vol.1): Trauma-informed Approaches in Addictions Treatment. (2009). *British Columbia Center of Excellence for Women's Health.* Retrieved from: https://bccewh.bc.ca/2014/02/gendering-the-national-framework-trauma-informed-approaches-in-addictions-treatment/

Keeney, S., Hasson, F., McKenna, H. P., & Wiley Online Library. (2011). *The delphi technique in nursing and health research* (1st ed.). Chichester, West Sussex: Wiley-Blackwell.

McHugo, G. J., Kammerer, N., Jackson, E. W., Markoff, L. S., Gatz, M., Larson, M. J., Hennigan, K. (2005). Women, co-occurring disorders, and violence study: Evaluation design and study population. *Journal of Substance Abuse Treatment, 28*(2), 91-107. doi:10.1016/j.jsat.2004.08.009

Marcellus, L. (2014). Supporting women with substance use issues: Trauma-informed care as a foundation for practice in the NICU. *Neonatal Network : NN, 33*(6), 307-314. doi:10.1891/0730-0832.33.6.307

Markoff, L. S., Reed, B. G., Fallot, R. D., Elliott, D. E., & Bjelajac, P. (2005). Implementing trauma-informed alcohol and other drug and mental health services for women: Lessons learned in a multisite demonstration project. *American Journal of Orthopsychiatry, 75*(4), 525.

Mezey, G., Bacchus, L., Bewley, S., & White, S. (2005). Domestic violence, lifetime trauma and psychological health of childbearing women. *BJOG: An International Journal of Obstetrics & Gynaecology, 112*(2), 197-204. doi:10.1111/j.1471-0528.2004.00307.x

Muzik, M., Ads, M., Bonham, C., Rosenblum, K., Broderick, A., & Kirk, R. (2013). Perspectives on trauma-informed care from mothers with a history of childhood maltreatment: A qualitative study. *Child Abuse & Neglect, 37*(12), 1215-1224. doi:10.1016/j.chiabu.2013.07.014

National Collaborating Centre for Methods and Tools (2015). *Appraising Qualitative, Quantitative, and Mixed Methods Studies included in Mixed Studies Reviews: The MMAT*. Hamilton, ON: McMaster University. (Updated 20 July 2015) Retrieved from http://www.nccmt.ca/resources/search/232.

Nathoo, T., Poole, N., Bryans, M., Dechief, L., Hardeman, S., Marcellus, L., Poag, E., Taylor, M. (2013). Voices of the community: Developing effective community programs to support pregnant and early parenting women who use alcohol and other substances. *First Peoples Child & Family Review 8*(1), 93-104.

Penaloza, D., Stafford, V., Ward-Driscoll, K., Soberano, L., & Kambright, D. (2015). *Understanding the journey of marginalized pregnant women in Surrey when accessing healthcare: a qualitative study.* Unpublished Article.

Polit, D. F., & Beck, C. T. (2014). *Study guide for essentials of nursing research, appraising evidence for nursing practice* (8th ed.). Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health.

Substance Abuse and Mental Health Services Administration, U.S. Department of Health and Human Services. (2011). *Addressing the needs of women and girls. Developing core*

competencies for mental health and substance abuse service professionals. HHS publication No. (SMA) 11-4657. Rockvillee, MD: Author.

Saia, K. A., Schiff, D., Wachman, E. M., Mehta, P., Vilkins, A., Sia, M., Bagley, S. (2016). Caring for pregnant women with opioid use disorder in the USA: Expanding and improving treatment. *Current Obstetrics and Gynecology Reports, 5*(3), 257-263. doi:10.1007/s13669-016-0168-9

Sorenson, D., & Tschetter, L. (2010). Prevalence of negative birth perception, disaffirmation, perinatal trauma symptoms, and depression among postpartum women. *Perspectives in Psychiatric Care, 46*(1), 14-25. doi:10.1111/j.1744-6163.2009.00234.x

Stenius, V., & Veysey, B. (2005). "It's the little things" - Women, trauma, and strategies for healing. *Journal of Interpersonal Violence, 20*(10), 1155-1174. doi:10.1177/0886260505278533

Torchalla, I., Linden, I. A., Strehlau, V., Neilson, E. K., & Krausz, M. (2015;2014;). "Like a lots happened with my whole childhood": Violence, trauma, and addiction in pregnant and postpartum women from Vancouver's downtown eastside. *Harm Reduction Journal, 11*(1), 34. doi:10.1186/1477-7517-11-34

Zanis, D. A., McLellan, A. T., & Corse, S. (1997). Is the addiction severity index a reliable and valid assessment instrument among clients with severe and persistent mental illness and substance abuse disorders? *Community Mental Health Journal, 33*(3), 213-227. doi:10.1023/A:1025085310814

Appendix

Table 1
Literature Review Matrix

Author/ Date	Country	Theoretical/ Conceptual Framework	Research Questions/ Hypotheses	Methodology	Analysis & Results	Conclusions	Implications For Research	Implications For Practice
Marcellus 2014	Canada	Literature Review	-Current state of knowledge of TIC, for application in NICU	Unknown	-Realizing prevalence of trauma -Effects of trauma -Putting knowledge into practice	-Relationship between SUD and trauma -TIC can improve experience of families, decrease staff stress	-Not mentioned	-Importance of developing new partnerships in NICU -Importance of incorporating voice of woman
Saia et al. 2016	United States	Literature Review	-Expanding knowledge base of HCP working with pregnant and postpartum women about evidence based practices in vulnerable populations	Review of: -Current literature on opioid use disorder among US women -Existing legislation on substance use in pregnancy -Available treatment options for pregnant women with SUD	-Opioid agonist treatment (OAT) is standard of care -Detoxification is not recommended -Histories of trauma, mental health disorders are prevalent -Breastfeeding with OAT is safe and beneficial	-Expansion of comprehensive treatment services and improving access to care to provide quality care	-Further research of OAT options and opioid antagonists in pregnancy	-Best practice incorporate gender-specific, trauma-informed, mental health services
Nathoo et al. 2013	Canada	Narrative Program Overview	-Overview of four programs in Canada, success and lessons learned	-Personal experiences from the developers of the programs	-Single access programs can lead to many success for mother and child -complexities include: multiple partnerships, governance models and funding structures	-There is an overwhelming demand for services -Flexibility in service delivery & negotiating relationships important component of programs	-Developing principles and practices for evaluation of community based prevention programs for mothers	-Best Practices: 1. Engagement and outreach 2. Harm Reduction 3. Cultural Safety 4. Supporting mother and child 5. Partnerships

Author/ Date	Country	Theoretical/ Conceptual Framework	Research Questions/ Hypotheses	Methodology	Analysis & Results	Conclusions	Implications For Research	Implications For Practice
Muzik et al. 2013	United States	Qualitative	-Understand healthcare preferences of trauma exposed women in the early postpartum period through qualitative interviews	-Grounded theory -Mixed method approach Methods: -Qualitative interviews -PTSD module -Postpartum Depression Screening Scale -Childhood Trauma Questionnaire	-Content analysis from grounded theory -N-Vivo open coding -Independent double coding -Ambivalence related to shame -desire to heal -10 recommendations for adequate healthcare services	-Healing involves ambivalence and hope -Chief motivators include children and motherhood	-More information about the unique needs of population to build and sustain successful programs	-More family centered, flexible approach to health service delivery
Stenius & Veysey 2005	United States	Qualitative	-Understand how women with a history of violence view & participate in their own healing process	-Grounded theory -Quasi experimental outcome study Methods: -Series of in-depth interviews	-Coding common themes - Constant comparative approach -How women take care of themselves in difficult times -Formal treatment services that have & have not been successful	-Women utilize a wide range of informal supports, formal treatment services -Healing activities: weekly support groups, pain or volunteer work, intellectual stimulation	-Not mentioned	-Outcomes may improve by how providers interact & treat women -Barriers: cost, limits to sessions & time, lack of 24 hour service, transportation, childcare, poor training & lack of therapeutic skills.
Markoff et al. 2005	United States	Qualitative	-Discuss & define most effective way to promote healing for women with co-occurring disorders & history of violence	-Qualitative description Methods: -5 year cross-site study -semi-structured interviews, site visits, interviews with key informants, trauma workgroup	-Develop consensus-based guidelines, principles and description of trauma-informed practice	-The woman plays an important role in all aspects of study -System changes must occur on many levels	-Not mentioned	-Application of trauma-informed principles -Creating a safe environment -Strength-based approach -Outreach, peer-led services

Author/ Date	Country	Theoretical/ Conceptual Framework	Research Questions/ Hypotheses	Methodology	Analysis & Results	Conclusions	Implications For Research	Implications For Practice
Torchalla et al. 2015	Canada	Qualitative	-Understand the subjective perspective of trauma & gender-based violence in women during pregnancy and early motherhood	-Phenomenological Methods: -Quantitative questionnaires & semi-structured qualitative interviews	-Transcribed interviews entered into NVIVO -Six key themes found	-Interventions should account for complex needs -Continuing impact of trauma, integration of trauma-informed care	-Not mentioned	-Trauma-informed approaches more important that trauma-specific interventions -Women with concurrent issues receive integrated treatment
Elliott et al. 2005	United States	Qualitative	-Increase awareness of importance of providing trauma-informed services -Provide guidance to improve service delivery	-Qualitative descriptive Methods: -5 year cross-site study -semi-structured interviews, site visits, interviews with key informants, trauma workgroup -Modified Delphi process	-Development of 10 Principles of Trauma-Informed Services -Consumer/ Survivor/ Recovering person integration -Applications of Trauma-Informed Services	-Understanding woman's life context is crucial -Each woman is expert on own life	-Developing & systematically evaluating trauma-informed models	-Collaborative rather than expert model – -Survivors involved in design, evaluation & delivery of services
Covington 2008	United States	Quantitative	-Definition, principles of gender-responsive services and the Women's Integrated Treatment (WIT) model	-Experimental studies of Helping Women Recover (HWR) & Beyond Trauma (BT) Methods: -Evaluating depression and trauma symptoms -One group pretest/posttest design	-Significant decrease in depression & trauma symptoms at completion of program	-Exposure to violence is a critical factor in treatment -Substance abuse treatment services become integrated	-Further empirical research of effectiveness of WIT program	-Gender-responsive, trauma-informed program provides safe, nurturing & empowering environment -Educate, normalize reactions, provide coping skills, avoid retraumatization

Author/ Date	Country	Theoretical/ Conceptual Framework	Research Questions/ Hypotheses	Methodology	Analysis & Results	Conclusions	Implications For Research	Implications For Practice
Gatz et al. 2007	United States	Quantitative	-Seeking safety therapy integrated into treatment program -Intervention group would show better treatment retention & improvement	-Quasi-experimental nonequivalent control group design sing intent-to-treat model	-Baseline differences -Treatment retention -Treatment outcomes -Effects of treatment completion on outcome -Effects of gain in coping skills on outcome -ANOVA testing	-Trauma informed program successful at meeting needs of women -more engaged, less likely to drop out -more gains in coping skills	-Not mentioned	-role of bonding & sense of safety -educating about effects of trauma & other symptoms -helping clients to learn new coping skills -meet al. l needs in integrated model
Choi & Seng 2015	United States	Qualitative and Quantitative	-Develop, implement and evaluate agency level training program on TIC for perinatal care providers and support staff	-Single group, pretest, posttest design	-Descriptive statistics and paired t tests to examine pre/posttests -Content analysis, transcription and open coding to identify themes -Limitations: small group size, bias in participant selection	-Training program useful and relevant to practice setting -More advanced programs needed for some providers	-Advanced programs and trainings for trauma-informed prenatal care should be developed and evaluated for clinicians	-All individuals working in the organization should receive training -Training can be tailored for specific groups