Mindfulness Based Cognitive Therapy (MBCT) as an approach for Treating Post-Partum Depression

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CHAPTER 2

METHODOLOGY & METHOD

Chapter Introduction

In this chapter I locate and describe the methodological/philosophical framework and research design I used to answer the research questions that were formulated to satisfy the purpose of my study. I also present my rationale as well as ~~nd~~ the procedures for sample selection and recruitment and provide a brief statement of the study's ethical considerations. I then describe and discuss the intervention used in this research design and list and discuss the quantitative and qualitative methods of data collection and analyses that I employed.

Methodological Framework

Research Rationale

As a body of work~~Taken together~~, the ~~above~~ literature reviewed above supports the importance and relevance of the proposed study, which seeks ~~ing~~ to explore the effectiveness, acceptability, and safety of MBCT as a psychologically informed ~~treatment~~ intervention program for pregnant women with a history of difficult postpartum moods (e.g., feeling worried, nervous, sad, down, overwhelmed) ~~postpartum.~~ The ~~context for this~~ research strives to ~~lies in~~ assess~~ing~~ and establish~~ing~~ the effectiveness, acceptability, and safety of MBCT for pregnant women at risk for PPD. ~~Given the time constraints of~~

~~the Master's degree program, t~~This study was not able to be designed longitudinally due to the time constraints of the Master's degree program, so ~~designed longitudinally and therefore~~ the findings are therefore limited to the contemporaneous effectiveness [immediate effectiveness? Direct effectiveness], acceptability, and safety of MBCT during pregnancy. If findings of the proposed study establish MBCT as an effective, acceptable, and safe program *during* pregnancy, follow-up control studies will need to assess the accrual and maintenance of benefits following the delivery of the intervention. For example, these benefits could be measured in terms of~~, for example,~~ the incidence ~~in~~of PPD in multiparous women at risk for PPD who receive MBCT during their pregnancy. As such, this research will contribute to the limited literature on ~~around~~ the preventive ~~treatment~~ intervention options available to ~~for~~ multiparous pregnant women at risk for PPD. The ~~F~~findings will contribute to the literature and ~~to~~ inform~~ed~~ practice options in the counselling field.

This study will make a step forward by combining both quantitative and qualitative approaches within one study to test the feasibility and safety of the MBCT for pregnant women. The~~I~~integration of qualitative and quantitative methods, which is often termed as mixed methods research, is a popular methodology in ~~the~~ mental health services research (Palinkas, Horwitz, Chamberlain, Hurlburt, & Landsverk, 2011). Mixed methods research is defined as a research approach that focuses on research questions that demand real-life contextual understandings, multi-level perspectives, and cultural influences; integrates quantitative research evaluating the magnitude and frequency of constructs as well as ~~nd~~ qualitative research investigating the meaning and understanding of constructs; and integrates multiple methods (e.g.~~,~~ interventions and ~~focus group~~focus groups) to draw

on the strengths of each (Klassen, Creswell, Clark, Smith, & Meissner, 2012). ~~Cresswell, Klaasen, Plano Clark, Smith, 2011).~~

Rationale for mixed methods. Combining quantitative and qualitative methods can capitalize on the strengths of each approach and provide more comprehensive answers to research questions, going beyond the limitations of a single approach. In this research the qualitative and quantitative methods inform one another. The two ~~Both qualitative and quantitative~~ methods set out to explore the acceptability, safety, and feasibility of the MBCT program for pregnant women from different points of view. Their integration will provide a deeper insight into the safety and acceptability of the MBCT program for pregnant women, first~~,~~ by identifying women's immediate reaction to each session, and second ~~, then,~~ by exploring the participants' experiences of the program in more depth. Methodologically, this study will add to mixed methods research by connecting ~~the~~ quantitative and qualitative data within a study.

Rationale for quantitative methods. Quantitative research seeks to establish objective knowledge and emphasizes measurement when collecting and analyzing data. Quantitative data provides measurable evidence, can be ~~offers the possibility of~~ replicated ~~ion~~ and generalized ~~ation~~ to other ~~a~~ populations, and ~~to~~ provides insight into a breadth of experiences. The ~~Q~~quantitative method generally ~~it~~ makes use of deduction in~~,~~ that ~~is,~~ research is carried out in relation to [to test a?] hypotheses drawn from theory [theoretically-based hypothesis] (Creswell, 1998). This makes qualitative methods appropriate for this study since the literature review suggests that MBCT may be effective for this specific population.

Rationale for qualitative methods. Qualitative research is defined as, a process of n inquiry process of understanding that is based on distinct methodological traditions and aims to of inquiry that explore and gain insight into a social or human problem (Creswell, 1998). Qualitative data provides a depth of understanding ofabout various concepts and emphasizes the voices of participants through interviews and quotes. The purpose of qualitative research is to understand and explain the perspectives and meanings elucidated by participants meaning (Morrow & Smith, 2000). Generally it makes use of induction in, that is, it generates theory from interpretation of the evidence. Qualitative research allows the researcher to build a complex, holistic picture, and report the detailed views of research participants (Creswell, 1998). As such, Qualitative research it includes context [foregrounds context] as an essential component of the research,; is uniquely able to capture the meanings the made by participants attribute to of their experiences, and addresses questions that cannot be answered using traditional quantitative methods (Morrow, Rakhsha, & Castaneda, 2001). Qualitative research was chosen because, although there is are evidence that of MBCT is safety and effectiveness for with numerous populations, but it has not been researched in the population of pregnant women.

Collecting, interpreting, and reporting of both quantitative and qualitative data maximizes the strengths of each type of data and minimizes their weaknesses of each type of data. As suggested by per Klassen Cresswell and colleagues' (20121), suggestion qualitative and quantitative data will be integrated by embedding data. Using In this form of integration, quantitative data about how participants are experiencing an intervention to will inform the development of procedures and qualitative data about participant's

overall experience of the intervention will ~~to~~ help explain the results of the trial; these data will be ~~is~~ embedded within the~~a~~ larger, primary design of the study and quantitative measures will be used to evaluate ~~ing~~ the effectiveness of MBCT ~~using quantitative measures~~.

Research Purpose

The research objective was to consider the effectiveness, acceptability, and safety of MBCT for pregnant women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 weeks ~~with~~in the first year following the ~~previous~~ delivery of a live infant.

Research Questions

This research asked and attempted to answer seven questions.

Research Question 1

Do women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant~~,~~ gain any measurable benefits from participating in an 8-week MBCT ~~treatment~~ intervention? The benefits are ~~as~~ assessed with the Outcome Rating Scale (ORS), which is ~~-~~administered at the beginning of each session as an indicator ~~ion~~ of week-to-week individual, interpersonal, and social functioning. ~~?~~ (See Appendix A)

Research Question 2

Do women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant~~,~~ show a measurable decrease in

depressive and anxious symptomology as measured by the Hospital Anxiety and Depression Scale (HADS)? (See Appendix B)

Research Question 3

For women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant, does participation in an 8-week MBCT program result in a measurable change in self-reported worry about the recurrence of those ~~difficult~~ moods and/or emotions ~~following the birth of their infant~~ as measured with the Worry About Difficult Moods (W-DM) scale? (See Appendix C)

Research Question 4

Is MBCT an acceptable, fusible, and safe ~~treatment~~ intervention program for women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant? This question will be answered with a help of qualitative and quantitative methods.

Research Question 5

Are women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following ~~previous~~ the delivery of a live infant~~,~~ satisfied with the goals, topics, and format of each MBCT group session; this is ~~-~~as measured at the end of each session by the quantitative method, Group Session Rating Scale (GSRS)? (See Appendix D)

Research Question 6

~~As focus groupfocus group, qualitative method, participants~~ Upon completion of the program, what do the focus group of pregnant women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant~~,~~ report about participating ~~on~~ in an MBCT ~~treatment~~ intervention program and the qualitative method?

Research Question 7

At any time during the course of their participation in MBCT, do pregnant women who have experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 consecutive weeks within the first year following the ~~previous~~ delivery of a live infant~~,~~ report any adverse emotional or physical experiences or side effects? This information will be acquired through the case notes and focus group.

Sample Characteristics

Five participants were enrolled in the study. All ~~participants~~ were pregnant women who ~~were currently pregnant and who~~ had experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least two consecutive weeks within the first year following ~~previous~~ the delivery of a live infant. All participants were at least 18 years of age, proficient in spoken and written English (whether first or second language), and lived in the greater Victoria area. A previous diagnosis of PPD or current diagnosis of depression was not required for inclusion in the study.

Exclusion Criteria

Exclusion criteria included not being able to read or communicate in English or being unable to participate as a result of not being able to find childcare ~~for their other children~~.

Recruitment Procedures

Ethical approval for the study was obtained from the University of Victoria's Human Research Ethics Board (HREB). Neither I nor any of my research assistants were acquainted with the participants prior to the study.

Participants were recruited with the help of informational posters that~~. Posters~~ were distributed to 12 midwifery centers, 41 General Practitioner offices, ~~and at various locations in Victoria 15 coffee shops~~, 2 parenting stores, ~~and~~ 3 recreation centers, and ~~)~~15 coffee shops in Victoria]. Two prenatal yoga class instructors were contacted through the mail (Appendix E) and asked to give us ~~for~~ permission to put the ~~pin up study~~ posters (Appendix F) or flyers (Appendix G) up in their offices or to distribute ~~study flyers~~ them at their classes. Each letter included five fliers and one poster. Information about the study was also posted ~~The research site, Mothering Touch, posted information about the study~~ on the Mothering Touch website and the Mothering Touch Facebook page and announced in the Mothering Touch's ~~the study in their~~ monthly electronic letter (Appendix H). The ~~S~~same information was posted on 5 local Facebook group~~s~~ pages that had been created to provide information to local Victoria women. Nineteen women contacted me (the PI) by email or telephone and expressed an interest in the study. I was unable to contact 3 women who e-mailed me about the study. I had a telephone discussion about the study with ~~Of the~~ 16 women ~~I had a telephone discussion with about the study~~. The ~~telephone~~ discussion was based on a prewritten script (see Appendix I). Three women (18.8%) did

not meet the inclusion criteria as they were expecting their first child. Out of the 13 women who met the inclusion criteria, ~~a total of~~ 8 (61.5%) declined participation ~~-;~~ 5 (38.5%) because they were unable to find child-care for their children and 3 (23.1%) because they were unavailable at the times the group met. ~~times.~~ Thus, the final sample of 5 women is ~~reflects~~ 38.5% of the eligible women who were interested in participating in the study. See Figure 1 for a summary of the recruitment process.

As a token of our appreciation and compensation for their participation, all participants received a copy of the book "Mindful Way through Depression" book as well as ~~ccompanied by~~ a CD of guided meditations and handouts with mindfulness exercises ~~as a compensation for their participation~~. The book describes the Mindfulness Based Cognitive Therapy approach to ~~for~~ dealing with difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and is a good compliment to the information that was provided during the group. The CD can be used for practicing mindfulness exercises at home.

Sample General Demographic Description

All participants in the sample were 18 years of age and older (M = 35.2, SD = 5.2; range = 27–40). All were also ~~participants in the sample were~~ Canadian citizens. Of these, 2 were Caucasian of longstanding Canadian heritage and others were of Scottish-Irish-Polish (n = 1), English-Norwegian (n = 1), and Irish (n = 1) descent. With regards to religion, two (40%) participants were Christian, one (20%) Roman Catholic, one (20%) "eclectic," and one was (20%) a baptized Christian who ~~and~~ belonged ~~ing~~ to a Vipasanna community. All participants identified English as their first language. Four (80%) participants were married and one (25%) was living common law. Three (60%)

participants had completed a graduate program ~~training~~ and two (40%) had a [an undergraduate?] university degree. Two (40%) participants were unemployed, one (20%) worked part-time, one (20%) worked full-time ~~time~~, and one (20%) had a full-time ~~time~~ position but was on medical leave. One (20%) participant reported that she had previous meditation experience. Regarding the participants' current pregnancy status, one (20%) participant ~~(20%)~~ was in the first trimester, 2 (40%) were in the second, and 2 (40%) were in the third trimester at the beginning of the study. All the participants reported that their pregnancy was planned. One (20%) participant was expecting her third child and four (80%) participants were expecting their second child. One (20%) participant stated that she was previously diagnosed with depression and anxiety, and one (20%) participant reported a ~~current~~ [?[previous diagnosis of PTSD following [CURRENT MEANS that she was still experiencing the symptoms of PTSD that had followed] the birth of her first child. None of the participants reported taking any medication for ~~their~~ mental health purposes~~concerns~~. Two (40%) participants reported that they received ~~ing~~ mental health help following a previous pregnancy. All these demographic characteristics are presented in Table 1.

~~Consistent with research to date~~Research to date consistently finds that~~, an adequate dose of MBCT is as~~ participation in 4 of 8 MBCT sessions is adequate for testing the therapy (Kuyken et al., [KL1]2008; Ma & Teasdale, 2004). In this study, dropout was conservatively defined as a participant who was absent for 4 or more of the 8 (≥ 37.5%) ~~treatment~~ group intervention ~~group~~ sessions. Participants were required to have a minimum attendance rate of 62.-5% ~~attendance rate~~ (i.e., attend 5 of 8 MBCT group sessions) in order to remain in the study. Three members had to miss one session due to ~~other~~ conflicting

priorities, such as medical appointments~~,~~ or ~~and~~ family obligations; all 3 participants informed me ahead of time as to which ~~the~~ session they had to miss~~ed~~. One participant missed 3 [KL2](37.5%) sessions because she gave birth between Session 4 and Session 5 and then consecutively missed sessions 5, 6, and 7. Based on the definition of ~~the~~ dropout, this study had 0% dropout rate. All participants completed measures at time one (T1) and time 2 (T2) of ~~-~~the study and attended at least 5 of the program's 8 (62.5%) sessions ~~of the program~~. One participant attended all 8 sessions (100%), 3 participants attended 7 sessions (87.-5%), and the ~~one~~ participant~~,~~ who missed session due to giving ~~gave~~ birth ~~between the fourth and fifth session and returned for the last group~~ attended 6 sessions (62.-5%). Thus the average attendance rate was 85% (*M* = 6.8; *SD* = 1.1; range = 5–8). All 5 participants participated in the ~~focus group~~focus group in Week 9.

Research Design and Procedures

~~M~~A mixed-methods concurrent single-study design, which gives ~~,~~ ~~with~~ equal priority to ~~y~~ ~~given to the~~ qualitative and quantitative research components, was used to ~~arms, to~~ explore and describe the effectiveness, acceptability, and safety of MBCT for pregnant women who had experienced difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 weeks within the first year following ~~a~~the ~~previous~~ delivery of a live infant.

A ~~M~~mixed-methods research design incorporates and integrates quantitative methods such as the HADS scale, [the?] GSRS and [the?] GORS and qualitative methods such as ~~focus group~~focus groups. Single study design refers to a study in which ~~where~~ a number of individuals are considered to constitute ~~as~~ one group. It is used to study the change a group exhibits as a result of an intervention. In this group all five women were

considered as one group and measures were assessed before ~~pre~~ and after the ~~post~~ MBCT intervention. In concurrent study designs~~,~~ such as this ~~as in this~~ one, all participants ~~undergo treatment~~are exposed to an intervention simultaneously.

By way of review [DOESN'T REALLY MAKE SENSE –MAYBE As previously stated?], the purposes of this study were to: (a) determine if empirical findings regarding ~~of~~ the effectiveness of MBCT on depression (Barnhofer et al., 2009; Dimidjian, Kleiber, & Segal, 2010; Eisendrath et al., 2008; Eisendrath, Chartier, McLane, 2011; Ma & Teasdale, 2004; Mason & Hargreaves, 2001; Segal et al., 2002; Teasdale et al., 2000~~Eisendrath et al., 2011; Dimidjian et al., 2010; Barnhofer et al., 2009; Barrett et al., 2008; Eisendrath et al., 2008; Ma & Teasdale, 2004; Segal et al., 2002; Mason & Hargreaves , 2001; Teasdale et al., 2000~~) and anxiety (Evans et al., 2008; Williams et al., 2008) in the general population and ~~in~~among primary care patients with active symptoms of depression and anxiety (Finucane & Mercer, 2006) ~~,~~extend to pregnant women; (b) extend the recent collective findings of ~~Duncan and Bardacke (2009), Vieten and Astin (2008), and~~ the Beddoe group (2009), Duncan and Bardacke (2009), and Vieten and Astin (2008) on the effectiveness of using the mindfulness-based intervention during pregnancy ~~in~~to reduce ~~ing~~ stress and improve a negative mood ~~during pregnancy~~,~~;~~ and; (c) to assess the acceptability and safety of MBCT during pregnancy for women with a history of difficult moods (e.g., feeling worried, nervous, sad, down, overwhelmed) and/or emotions for at least 2 weeks within the first year following the ~~a previous~~ delivery of a live infant.

Data Collection: Assessing Effectiveness and Acceptability

Quantitative data. Quantitative data were collected to assess the effectiveness and acceptability of a modified MBCT program for this population. Pre- and post-~~treatment~~ intervention data were collected for depression, anxiety, anticipatory worry about ~~difficulty coping with~~ a difficult postpartum mood, and the perceived ability to cope with that mood. ~~difficult postpartum mood.~~ Quantitative data were also collected before and after each session ~~treatment group for~~ to evaluate its ~~session~~ acceptability and effectiveness. The primary investigator (PI) and the research assistant~~,~~ (a fellow graduate student)~~,~~ were responsible for test administration.

Qualitative data. Qualitative data were collected to assess the effectiveness and acceptability of the program for pregnant women;~~,~~ to describe participants' experience of ~~in~~ the MBCT intervention;~~,~~ and to support/disconfirm and possibly explain the quantitative results. Qualitative data were collected from participants in a single-session video-recorded ~~focus group~~focus group format one week following the completion of the 8- session (one session per week) MBCT program. As a group, participants were asked to discuss their experience and thoughts about ~~on their~~ participating ~~on~~ in the MBCT program. ~~Focus group~~Focus group qualitative data were transcribed verbatim and subjected to a thematic analysis.

Data Collection: Assessing Safety

~~The~~ D~~d~~ata on the safety of the MBCT intervention was collected by ~~through the~~ monitoring ~~of~~ the incidence of "adverse effects" reported by the women. The research team members were attentive to mentions of any physical complaints that were attributed to participating in the program (e.g., shortness of breath during the physical exercise components of the session or~~;~~ undue stiffness during~~,~~ or immediately after each exercise

and on the day following the group session). The research team also monitored self-reports of heightened emotionality or distress as a result of participating in the group; absence from the groups; and withdrawal from the study. Each activity was followed by ~~a~~the question "How did you find this exercise?" This gave the ~~us~~ women ~~were given~~ an opportunity to provide ~~five~~ the research team with ~~an~~ immediate feedback. During the debriefing meeting following each group, the research team discussed any ~~mentions of~~ physical and emotional complaints that were attributed to participating in the program and the primary investigator included the main points of discussion in the field notes.

Credibility

Patton (1990) stated that data triangulation ensures high quality data that are [OR ensures that data are high quality,] credible, accurate, and true to the phenomenon under study. Anfara, Brown, and Mangione (2002) wrote that credibility may be obtained [achieved OR heightened] through prolonged engagement in the field, the use of peer debriefing, triangulation, member checks, and time sampling. This study utilized ~~Of the methods recommended,~~ triangulation, peer debriefing, and member checks ~~were utilized for the purpose of this study~~ to assure credibility.

Data triangulation. Triangulation refers to the combination of several research methodologies. It enhances the validity of research findings by validating data through cross-verification ~~verification~~ from more than two sources.

Field notes were used to establish the trustworthiness of the data. Field notes help researchers to keep track of the study's development ~~of the study~~, ~~and~~ promote reflexivity on the part of the researcher, and establish the data's trustworthiness ~~of the data~~. They can help researchers to identify ~~recognize~~ personal biases, values, and experiences~~,~~ as

they become a part of the study [OR as they progress through the study] (Creswell, 1998). Morrow (2005) argues that field notes based ~~taken from~~ on observations in the field are essential to exploring and expressing the ~~content~~ subject matter of the study. Rossman and Rallis (2003) encouraged the use of providing in-depth ~~thick~~ description and ~~providing~~ elaborate details in the field notes in order to enhance future analysis. Following ~~Based on~~ Morrow's and Rossman and Rallis' recommendation, the PI recorded fi~~e~~l~~e~~d notes were ~~taken~~ after each MBCT session. An hour was set aside for th~~e~~is task. ~~PI to write field notes.~~ The PI kept field notes over the course of the 8-week period ~~during~~ which the study was conducted and regularly reviewed ~~ad~~ the field notes between sessions. A focused effort was made to provide rich and nuanced details about ~~of all aspects of the each~~ participant~~s~~'~~s~~ demeanor, ~~and~~ comfort level, physical movements, and perceived stress levels, as well as ~~and~~ any ~~other nuances or~~ stumbling blocks that e participants encountered ~~presented by the participant~~. Field notes also tracked and accounted for possible contextual influences, ~~,~~ provided reasons for absences~~,~~ and anecdotal notes, and made ~~, as well as~~ practical observations for counselling.

Member checking. Lincoln and Guba (1985) described member checking as the most crucial technique for establishing credibility.~~"~~ Creswell and Miller (2000) argued that the participants add credibility to the qualitative study by having a chance to react to the data.

Peer debriefing. Creswell (1998) suggest~~s~~ed that peer debriefing provides an external check of the research process. He states that the peer is a person who keeps the researcher trustworthy and asks the hard questions. My group co-facilitator and my master's thesis supervisor assumed this role. Immediately following each

session I met with her ~~my group co-facilitator~~ to have a 15 minute~~s~~ debriefing session. She was also involved in ensuring that the focus group transcripts were transcribed accurately. ~~. My Masters thesis supervisor also~~ She naturally assumed the role of the peer as she critiqued my methods and questioned my data interpretation and analysis of data. The input, support, and feedback from both women were critical to the research process.

Data Collection Timeline

Part 1: pre-intervention/time 1 measures. At T1, women completed the informed consent form (Appendix J), the Demographic Questionnaire (Appendix K) and the two T1 measures: the Hospital Anxiety and Depression Scale (Appendix B) and the Worry about Difficult Mood Scale (Appendix C).

Part 2: intervention (weeks 1-8). During these weeks the MBCT group ~~treatment~~ intervention was delivered to the study sample. The description of the MBCT group ~~treatment~~ intervention is outlined below. Women were asked to complete the Outcome Rating Scale (Appendix A) at the beginning of each group session and the Group Session Rating Scale (Appendix D) at the end of each group session.

Part 3: post-intervention (week 9). This was ~~a~~the final group session for the study and took the form of a video-recorded ~~focus group~~focus group. Following the ~~focus group~~focus group, T2 measures (HADS and W-DM) were collected.

Intervention: Mindfulness Based Cognitive Therapy Group

The ~~treatment~~ intervention used in this study was a modified version of the Mindfulness-Based Cognitive Therapy protocol detailed in Segal, et al [KL3](2002). [NOTE: As previously indicated, IF TRUE] MBCT was developed as a group-based

intervention and has been tested in ~~the~~ group settings. Segal et al. ~~(2002)~~ suggests that the number of participants in ~~the~~ a MBCT group depends on the facilities available and argues that smaller group sizes of up to 12 participants ensures that the intervention remains skill-based and that the group ~~based MBCT group~~ does not turn into a therapy group. We were prepared to facilitate a group of up to 12 participants. However, during the one-month recruitment window only 7 women who met ~~eting~~ the inclusion~~/exclusion~~ criteria for the study were interested in participating ~~in the group~~. Of these 7 women, 5 were recruited. ~~into the study.~~ The present study ~~investigation~~ thus included a sample size of 5 participants.

MBCT is an eight-week ~~8 week~~ psychoeducation[al?] skill-based~~,~~ and on a small scale, therapeutic, group [is a psychoeducational eight-week skill-based intervention oriented to a small group]. Weekly sessions are manualized [follow a manual] and each session runs for approximately-2 hours. Mindfulness skills are taught, practiced, and then discussed within a group setting. The curriculum includes mindfulness meditations, guided relaxation, training in cognitive/behavioural skills ~~training~~, group discussions, and homework assignments. Mindfulness practices are intended to help participants ~~provide a means of~~ monitor~~ing~~ their internal reactions and thereby~~, thus enabling participants to~~ make more skillful response choices. The ~~S~~specific goals of MBCT include increasing participants' awareness of ~~difficult~~ mood triggers, shifting the ~~relationship and~~ response to discomfort or distress, and interrupting habitual behavioral reactions to difficult moods and thoughts, thereby reducing the likelihood of relapse. Sessions typically begin with a 20 to 30 minute guided meditation (e.g.~~,~~ ''body scan,'' or sitting meditation) and involve

a variety of experiential exercises (e.g.~~,~~ practicing nonjudgmental acceptance and ~~the~~ usinge of ‘‘mini-meditations’’ or ‘‘breathing spaces’’ in challenging situations).

The MBCT intervention relies on participants engaging in mindfulness practice at home as well as in group, which ~~and this~~ is supported by providing CDs and handouts for home practice. The MBCT manual and participant handouts set out the rationale and sequencing for the home mindfulness practice. This homework takes from 30 minutes to an hour a day, and is to be done six days a week, for eight weeks, and involves tasks such as listening to CDs, performing brief exercises~~, and so on~~.

Participants ~~in the present study attended sessions and~~ were encouraged to listen to mindfulness meditation CDs at home for 45 minutes, six days a week~~out of seven~~. In order to enhance their compliance with protocols, ~~compliance~~ the ~~participant~~ handouts were prepared in accordance with that outlined in [OR handouts used the format outlined by] Segal et al. [KL4](2002). Further, ~~F~~facilitators followed the weekly agenda set out in the manual.

Modification of the Mindfulness Based Cognitive Therapy Program

The structure of the ~~S~~sessions ~~structure~~ and the interventions closely followed the~~ose outlined in the~~ manual. Although ~~Whilst~~ I respected and for the most part ~~in the main~~ adhered to the MBCT program, ~~given the nature of the sample (pregnancy)~~, I thought it was imperative that the program was flexible enough to meet the~~ group's~~ needs of the sample (pregnant women). ~~.~~For this reason, a weekly checkout was included to determine whether there ~~gather information on if there~~ were things (e.g.~~,~~ women's body positioning in meditations) that ~~women~~ needed to be adjusted in the program. The main deviation from the published manual was an extended check-in. Women valued the check-in time

and continuously commented on the importance of checking in with the group about their mindfulness homework as well as how mindfulness related to their [OR influenced their experience of] pregnancy in general. During the course of the program women made several requests for adjustments ~~in~~ to ~~-~~session structures. ~~These requests were accommodated and adjustments to the program were made because~~ I believed it would be unethical to ignore these requests, so adjustments to the program were made to accommodate them. ~~.~~ The ~~R~~requests and corresponding modifications ~~include the following~~were as follows: (a) ~~by~~ in Session 2, the women requested an extra break and a few modifications to the working meditations (give an example – Katya's note); (b) from Session 3 onwards, the ~~working~~ "dignified posture" was omitted from the meditations and body scans included a scan of the belly, and; (c) at the end of the Session 3, women requested ~~to~~that the time spent ~~reduce the duration of~~ in sitting meditations be reduced; body scans and guided sitting meditations were subsequently reduced from 40 to 30 minutes. Additional modifications included: ~~;~~ (a~~d~~) deviating from the MBCT's narrow focus on depression throughout the program to ~~examples were provided throughout the program to~~ illustrate key points about depression and anxiety and ~~to~~ to link practices to either or both depression and anxiety ~~rather than relating more narrowly to depression as in the MBCT manual; correspondingly~~, (e~~b~~) in Session 4, extending psychoeducation around depression ~~was extended~~ to include anxiety and stress in Session 4, and; ~~and~~ (c~~f~~) not showing the MBSR video ~~was not shown~~ to the participants because neither the video nor the technology were available. Despite ~~Although~~ thes~~e~~re ~~were some~~ alterations, ~~to the program~~ the modified intervention still utilizes the core MBCT exercises and philosophy. The s~~S~~tructure, content, and modifications of each session are outlined in Table 3.

MBCT exercises used in the study.

Raisin exercise. This 15 minute~~s~~ long exercise is used as an introduction to mindfulness. Using a transcript available in Segal et al. (2002), the facilitator talks participants through a guided examination of all aspects of a raisin – its~~'s~~ shape, texture, colour, and sound. Participants are then asked to place the raisin in the mouth, but ~~to~~ not bite it. The end of the exercise involves participants chewing the raisin, swallowing it, and following it mentally all the way down to the stomach. ~~Following this activity~~, ~~p~~Participants are then asked open-ended ~~-ended~~ questions to help them explore and articulate their experience.

Body scan meditation. The body scan meditation focuses on specific areas of the body and enhances awareness of ~~brings a detailed awareness and focus to specific~~ these areas ~~of the body~~. ~~Starting f~~From Session 3 onwards, body scans included a scan of the belly.

Be mindful during a routine activity. For this homework activity participants are asked to choose a routine activity (e.g.~~,~~ brushing teeth, vacuuming, washing dishes) and to experience it in the same way they experienced the raisin ~~exercise~~.

Homework record forms. These forms were taken directly from Segal et al. (2002) and allowed participants to document the frequency of their ~~practice of~~ [OR document how often they practiced] mindfulness activities and to comment on the feelings, thoughts, or behaviors that they ~~were~~ experienced while engaged in the activities.

Thoughts and feelings exercise. In this exercise, participants are given ~~introduced to~~ a scenario where someone they know passes them on the street without saying hello.

Participants are then asked to explore their thoughts and feelings in response to ~~surrounding~~ the scenario and facilitators help them to ~~participants~~ see how the thoughts, feelings and behaviors are connected.

Pleasant and unpleasant events calendars. Participants are given forms (Segal et[KL5] al. (2002) that help them identify one pleasant event per day in Week 2and one unpleasant event per day in Week 3. Participants are also asked to record how they thought, felt, and physically reacted to each event. The purpose of this exercise is to help participants understand the need to accept pleasant and unpleasant events equally and without judgment.

Breathing meditation. The breathing meditation focuses on breath and enhances ~~brings a detailed~~ the awareness of ~~and focus to the~~ breath. The ~~W~~women were asked to complete the breathing meditation every day for the second and third weeks of the intervention.

Five-minute hearing exercise. Participants were ~~are~~ asked to sit for five minutes with their eyes closed and ~~center all of their~~ focus closely on the hearing. When their mind wa~~o~~nered~~s~~ or intrusive thoughts arose, ~~enter,~~ participants were ~~are~~ instructed to acknowledge it and then ~~them, but then~~ refocus ~~back~~ on their hearing. After the exercise, facilitators engaged participants in a discussion about their experience and asked them to identify any obstacles that interrupted their ~~to~~ focus on hearing ~~that they encountered~~.

3-Minute breathing space. This exercise asks participants to take one minute to evaluate their immediate physical, emotional, and cognitive situation [conditions OR feelings OR states]~~, using,~~. Then participants ~~are~~were ~~-~~asked to ~~then take a minute to center with a~~focus on their breath ~~-~~for a minute~~focus~~. Finally, the facilitators guided

participants through one minute scan of their bodies~~y~~. ~~centering to enter into all parts of body.~~

40-minute sitting meditation. This meditation ~~is a~~ combined ~~ation of~~ all of the skills participants have learned up to this point, including the body scan, breathing meditations, and hearing exercise. Participants are instructed that if an intrusive thought or event occurs, they should ~~to~~ acknowledge it and return their focus back to the breath. In session 4, ~~due to participant's request the~~ the 40-minute sitting meditation was reduced to 30-minutes due to participants' request.

Moods, thoughts, and alternative viewpoints discussion. This activity involved~~s~~ a short overview of how thoughts can influence moods~~,~~ and a discussion about techniques and practices ~~and suggestions to~~ for viewing intrusive thoughts in a different way.

Facilitation of the Mindfulness Based Cognitive Therapy Program

The MBC was originally conceived of as a class-driven modality and ~~D~~designed as an eight-week program with specific guidelines for each session ~~, MBCT was originally conceived of as a class-driven modality~~ (reference). For the present study, each session was facilitated according to [each session followed] the MBCT manual (Segal et al. 2002), with the exception of the previously mentioned modifications mentioned ~~above~~. I facilitated all the s~~S~~essions as PI with the assistance [OR collaboration] of ~~were facilitated by myself and~~ a colleague ~~of mine,~~ who is also in her second year of the ~~her~~ MA Counselling Psychology degree program. As a result ~~function~~ of our graduate training, we both have a ~~-~~solid range of clinical experience that includes ~~ing the~~ facilitating ~~on of~~ groups. In accordance with Segal et al.'s ~~(2002)~~ recommendations, we both maintained a practice of personal mindfulness ~~practice~~. The PI ~~primary investigator~~

~~One of us~~ had ~~specific~~ experience in the delivery of the MBCT and other cognitive-behavioral and mindfulness interventions in a group setting as well as ~~nd had 4~~ 3 years of regular ~~personal~~ mindfulness meditation practice. ~~As facilitators, we had~~ Dr. Susan Tasker, PhD, CCC, ~~as a~~ was the primary supervisor of the facilitators ~~supervisor~~ for the duration of the ~~the~~ group.

Measures

Demographic Questionnaire

The demographic questionnaire (Appendix K) designed for this study included traditional demographic questions (e.g., relationship status, education, income) and pregnancy-specific questions ~~specific~~ (trimester, number of pregnancy) items. The questionnaire was comprised of check boxes and fill-in-the-blank items and took about 7 minutes to complete.

Quantitative Measures

Quantitative measures were among the tools used to assess ~~in part~~ the effectiveness and acceptability of MBCT for this sample. I selected instruments that have been employed in previous studies and designed the Worry About Difficult Moods (W-DM) scale specifically for this study. I also designed the Demographic questionnaire, paying particular attention to variables that I considered interesting or potentially relevant.

All the instruments that were employed are "paper-and-pencil" tests involving ~~calling on participant completion of~~ rating scales, check box items, and survey questions about participants' ~~their~~ experiences, behaviour, or attitudes. The ~~A~~advantages of these self-report methods are that they are easy to administer and interpret. The key disadvantage~~s~~ of self-reporting methods is ~~are mainly~~ that they are susceptible to

distortion by participants, as they ~~who~~ may exaggerate or minimize their answers in an attempt to meet the approval of the researcher/questioner; this effect is known as the social desirability bias. Participants were assured of confidentiality, which ~~as such~~ decreases ~~ing~~ the likelihood of ~~potential for~~ the social desirability bias occurring. Another problem with self-reporting is one of language ~~and~~ literacy. As the participants in the ~~however for the~~ present study ~~participants~~ were required to have proficient spoken and written English, ~~and~~ it was unlikely that ~~therefore~~ their responses would be ~~are unlikely to be~~ skewed by ~~language~~ literacy limitations. ~~ability.~~

At T1 the participants completed a questionnaire package that included the Demographic Questionnaire, the Hospital Anxiety and Depression Scale (HADS), and Worry about Difficult Mood scale (W-DM). The HADS and W-DM [the W-DM?] were administered once again at T2. The Outcome Rating Scale (ORS) and the Group Session Rating Scale (GSRS) were administered before ~~prior to~~ and after each session.

Hospital anxiety and depression scale (HADS) ~~.~~

The HADS (Appendix B; Zigmond &~~and~~ Snaith, 1983) is a popular clinical and research self-assessment ~~assessmen~~t tool designed to assess the dimensions of anxiety and depression among ~~in~~ non-psychiatric populations (Herrmann, 1997; Zigmond & Snaith[KL6]~~, 1983~~). It ~~The HADS~~ is an easily administered 14-item measure consisting of two subscales, anxiety (HADA) and depression(HADD), which have ~~ith~~ seven items ~~on~~ each. The items are scored on a 4-point ~~poin~~t Likert scale with higher scores representing higher distress. Total scores for anxiety or depression are *normal* (0–7), *borderline caseness* (8– 10), and *probable caseness* (11–21) (Zigmond & Snaith~~, 1983~~). Snaith and Zigmond (1994) advocate the use of the anxiety and depression sub-scale scores as

clinical indicators rather than a HADS total score ~~being used~~ [as more accurate clinical indicators than a total HADS score].

As ~~T~~the HADS was originally designed to measure depression and anxiety in hospitalized patients with physical health problems, ~~and Ttherefore~~ it specifically excludes symptoms that might arise from the somatic aspects of illness such as insomnia and fatigue (Zigmond & Snaith, 1983). Sixty-six per cent to ~~In pregnancy, 66%~~ to 94% of pregnant women report sleep disturbances as a result of the major physiological and psychological changes associated with pregnancy (Schweiger, 1972; Suzuki, Dennerstein, Greenwood, Armstrong, Satohisa, ~~et al.,~~ 1994~~]~~). Consequently, f~~F~~atigue is a common complaint during pregnancy (Chien & Ko, 2004; Lee & Gay, 2004). This increases the suitability of the HADS for evaluating depression and anxiety in pregnant women~~cy~~.

~~EXCELLENT.~~

The HADS has demonstrated strong ~~good~~ sensitivity and specificity for depression and anxiety and is an efficient, ~~and~~ useful means of measuring severity with strong ~~good~~ reported validity and reliability (Zigmond & Snaith, 1983). Spearman correlations of the subscale scores and psychiatric ratings suggest that the subscales are adequate measures of symptom severity (for depression, $r = 0.70$, $p < 0.001$; for anxiety, $r = 0.74$, $p < 0.001$; Zigmond & Snaith~~, 1983~~). Moorey, Greer, Watson, and Gorman ~~et al.~~ (1991) reported positively on the validity of the scale as a measure of two independent factors and Bjelland, Dahl, Haug, and Neckelmann ~~et at~~ (2002) reported a high internal consistency of the two sub-scales [that the two sub-scales had a high degree of internal consistency] (anxiety = -0.68–0.93, depression = -0.67–0.90. Test-retest reliability,

when [OR Test-retest reliability, which was] established within a healthy sample, indicated correlations of 0.89 for the anxiety scale and 0.92 for the depression scale.

The HADS has been used for screening purposes in a diverse and broad range of clinical groups (Bjelland, ~~Dahl, Haug & Neckelmann,~~et al., [KL7]2002; Herrmann, 1997; Johnston, Pollard & Hennessey, 2000). ~~Of relevance to the present study, the HADS has been~~ Its use~~d~~ in assessing levels of anxiety and depression in pregnant women is of relevance to the present study (e.g., Cederholm, Sjoden, & Axelsson, 2001; Jomeen & Martin, 2004; Prettyman, Cordle and Cook; 1993; Pritchard, 1994; Rowsell, Jongman, Kilby, Kirchmeier & Orford, 2001; Thapar & Thapar, 1992).

~~Cederholm, Sjoden & Axelsson, 2001; Jomeen & Martin, 2004;Thapar and Thapar, 1992; Prettyman, Cordle and Cook; 1993; Pritchard, 1994; Cederholm et al., 2001; Rowsell, Jongman, Kilby, Kirchmeier and Orford, 2001).~~

I chose to use the HADS ~~for use~~ in the present study because it is a brief questionnaire which considers depressive and anxious symptomology; it~~'~~s psychometric properties are well-documented ~~documented~~ and adequate; it is concise~~,~~ ~~and~~ thorough, and appears to have good face validity; and it has been used across studies [OR used in a variety of studies] to assess anxiety and depression in pregnant women.

Worry about difficult moods scale (W-DM). The W-DM is a 6-item scale that includes 1 yes or no question, 2 likert-scale questions, and 2 open-ended questions (Appendix C). This scale was designed specifically for this study to subjectively assess women's anticipatory worry about difficult postpartum moods and their perceived ability to cope with those ~~possible difficult postpartum~~ moods. The first question asks "Are you worried about experiencing difficult moods (e.g.~~,~~ feeling worried, nervous, sad, down, or overwhelmed) after the birth of your baby?" The second question asks the participant to

elaborate on the first answer. The next question asks the participant to rate the level or degree of worry on a likert scale ranging from 1 (very little) to 5 (almost overwhelming) and it is followed by a question asking respondents to explain their rating – ~~;~~ for example, why they rated their worry as a 2 and not a 1 or a 3. Question 5 is a likert scale question assessing how confident the women perceived ~~-~~themselves to be in terms of their ability to cope with a [assessing the women's perception of how capable they were of coping with a OR assessing how confident the women were about their capacity to cope with a].difficult mood following the birth of their baby ~~.~~ The response options range from 1(very little) to 5 (very). The last question asks the participants to explain their rating, as described above.

The outcome rating scale (ORS). ~~.~~

The ORS (Appendix A; Miller~~ et al.,~~ , Duncan, Brown, Sparks, & Claud, 2003) is a brief 4-item visual analogue self-report measure designed to monitor clients on a ~~for~~ session-by session basis ~~monitoring client progress in every session~~ (Bringhurst, Watson, Miller, & Duncan, 2006; Duncan, 2010; ~~Duncan & Sparks, 2010; Duncan et al., 2003;~~ Miller & Duncan, 2004; Miller, Duncan, Brown, Sparks & Claud, 2003~~; Bringhurst, Watson, Miller, & Duncan, 2006~~). ~~and which~~ It allows practitioners to predict ~~with a high degree of certainty~~ the value of therapy and the continuity of their services ['the continuity of their services' IS UNCLEAR, MAYBE the value of ongoing therapy with the same therapist?] ~~-~~(Saggese, 2005). The flexibility of this measure allowed us to identify when participants did not respond to ~~treatment~~ the intervention and to discuss this with participants during the next session's check-in; ~~and to make~~ adjustments were made if appropriate or required. ~~ly.~~ For each item on the 4-item ORS, the respondent ~~is~~was instructed to place a mark on an unmarked 10-cm line. ~~The m~~Marks closer to the left end

indicate more difficulties in the particular domain, while ~~and~~ marks closer to the right end depict fewer difficulties~~problems~~. The ORS items focus on three areas of functioning by asking participants how they felt ~~,~~ in the last week~~, they felt~~ individually (personal well-being), interpersonally (family, close relationships) and socially (work, school, friendships). The fourth item requires the participant to globally [generally?] evaluate her daily functioning over the last week. Each item is scored by simply ~~-~~measuring the marks made by the participant to the nearest millimeter on each of the four lines.

~~Researcher~~ Past research has demonstrated that the ORS has good psychometric properties ~~for the ORS (~~Bringhurst, Watson, Miller, & Duncan ~~et al.,~~ , 2006; Campbell & Hemsley, 2009; Miller et al., [KL8]2003). Miller et al. ~~(2003)~~ assessed the validity, reliability, and compliance rate of the ORS using ~~a~~ non-clinical (n ~~-~~= ~~-~~86) and clinical samples (n = 435). Their ~~R~~results showed a high degree of internal validity (a ~~-~~=.~~-~~93), moderate test–retest reliability ~~as moderate~~ (a=.~~-~~66), and a relatively high compliance rate ~~as relatively high~~ (89%). Campbell and Hemsley [KL9]~~(2009)~~ also evaluated the validity and reliability of the ORS and found ~~M~~moderate to strong [OR capitalize both M and S] correlations ~~were found~~ between the four ORS items (r =.~~-~~58–.~~-~~97); ~~and , in~~ a particularly~~,~~ ~~a~~ strong correlation was found between ‘‘Overall’’ and ‘‘Individually’’ (r =.~~-~~97, p = 5. 01). The reliability coefficient for the ORS (a =.~~-~~90) was particularly impressive given the small number of items in each scale.

I selected the ORS for this study because of ~~for~~ its brevity, simple content structure, and scoring procedure, in addition to its ~~being reliab~~reliability ~~le~~ and validity.

The Group Session Rating Scale (GSRS). The GSRS (Appendix D; (specific reference for author/s of the SRS) –is adopted from the Session Rating Scale (SRS),

which was designed for the session-by-session monitoring of the therapeutic alliance [OR of therapeutic alliances] during therapy (Bringhurst, Watson, Miller, & Duncan, 2006; Duncan, 2010; ~~Duncan & Sparks, 2010; Duncan et al., 2003;~~ Miller & Duncan, 2004; Miller, Duncan, Brown, Sparks & Claud, 2003~~;~~). It was specifically adopted by the designers of the SRS to monitor ~~session by session of the~~ therapeutic alliance [OR alliances] in groups on a session-by session basis.~~.~~ Participants are also encouraged to identify any concerns that they have about a therapeutic alliance [OR about therapeutic alliances ~~concerns~~]~~-~~for each] ~~that~~ session. ~~Thus, i~~In addition to using the GSRS to assess session-by-session satisfaction, I could use the scale's data to guide week-by-week facilitation in terms of tailoring the MBCT program ~~for~~ to pregnant women [OR to tailor the MBCT program to pregnant women and inform facilitation on a week-by-week basis].

The GSRS consists of four items. For each item, the participant is instructed to place a mark on an unmarked 10-cm visual analogue scale. ~~The m~~ Marks closer to the left indicate ~~depicts~~ negative responses to the session and ~~the~~ marks closer to the right~~,~~ indicate ~~-~~positive responses ~~about the session~~. The GSRS items focus on three main elements of the therapeutic alliance: the relationship (on a continuum from "I did not feel heard, understood, and respected" to "I did feel heard, understood, and respected")~~;~~, goals and topics (on a continuum from "We did not work on or talk about what I wanted to work on and talk about" to "We did work on or talk about what I wanted to work on and talk about") and the approach or method used (on a continuum from "The therapist's approach is not a good fit for me" to "The therapist's approach is a good fit for me"). The fourth item requires the client to generally evaluate the ~~treatment~~ intervention session. The GSRS is scored by ~~summing the marks made by the client~~ measuring all of the marks

made by the client ~~ed~~ to the nearest centimeter on each of the four lines and summing them up. Given that 10 is the ~~Based on a~~ highest possible score ~~of 10~~ on each line and that 40 is the highest ~~a~~ total possible score, ~~of 40,~~ any score lower than 9 or 36 respectively~~,~~ could be a source of concern, in which case the therapist should [OR might] ~~and therefore suggesting to~~ invite the client to comment.

[NOTE: Red text here is yours, bold are my additions] As mentioned above, ~~in 2007 GSRS~~ **the GSRS was developed in 2007** by the creators of the SRS to assess **the** therapeutic group **alliance [OR alliances]**. ~~Due to the novelty of the GSRS, T~~to the best of my knowledge, published evidence of ~~its~~ **GSRS's** reliability and validity are not yet available. **This is likely because of its novelty.** In 2010, Miller ~~has~~ presented preliminary favorable findings on the reliability and validity of the ~~SGRS~~ **GSRS** at the Achieving Clinical Excellence Conference (Miller, 2010). However the results have not yet been published. ~~Recently a~~

Further, a paper on GSRS Psychometrics has recently been submitted to the Counselling and Psychotherapy Research Journal (Quirk, et. al., under review). Quirk and her [OR his] colleagues examined whether the GSRS is related to other commonly used group process measures [OR commonly used measures of group processes?] such as~~(e.g.,~~the Working Alliance Inventory, Group Cohesion, Group Climate~~)~~ and early change [Early Change?](change over the first four sessions of group therapy) [NOTE: I deleted the brackets because the sentence was otherwise confusing. At first I left the () in but added 'measures' after 'early change'. YOU WOULD USE THAT IF early change IS NOT A 'group process measure. THE LAST ALTERNATIVE I OFFERED WAS 'commonly used measures of group processes' – MIGHT MAKE THE

MOST SENSE]. They examined 105 clients in five ~~5~~ group therapies. Their ~~R~~results suggest that therapists who lead group therapy can use the GSRS to gather information about alliances and alliance outcomes ~~and alliance information~~ in a clinically useful and efficient manner. The ~~R~~researchers found that the GSRS correlated with early change and was related to other group process measures [processes]~~as well as predicted early change~~. Their findings also provide support for the GSRS reliability based on [OR indicated by] the [?] Cronbach alphas and the [?] test-retest coefficients. This study provides initial support that ~~for~~ the GSRS is ~~as~~ an ultra-brief measure of how each group member feels about the group process [OR about group processes]. Although this study has not yet been published, it provides promising ~~the~~ evidence of the validity, reliability, and feasibility of the SRS that is ~~are promising~~ ~~and~~ relevant to the GSRS. The ~~instrument's~~ psychometric properties of the SRS have been examined and reported for both clinical and non- clinical samples (~~Miller, Duncan, Brown, Sparks, & Claud, 2003;~~ Duncan & Miller, 2006; Miller, Duncan, Brown, Sparks, & Claud, 2003). Duncan & Miller [KL10]~~(2006)~~ assessed internal consistency by calculating Cronbach's coefficient alpha of ~~, (N = 420) was~~ .-88 (*N* = 420). The high inter-correlations among the subscale scores suggest a single underlying factor. This represents a very high level of internal consistency for the overall SRS as well as the subscale scores.

A recent report by Campbell & Hemsley (2009) suggests that the SRS demonstrates good reliability (*a* =.-93) and strong inter-item correlations (*r* =.-74 – .-86, *p* < ~~5~~.-01). Duncan & Miller [KL11]~~(2006)~~ also demonstrated that the SRS possesses moderate stability as reflected by the [OR its] test-retest coefficients. The test-retest

reliability demonstrates positive results (*r* =.-64). Duncan & Miller ~~(2006)~~ suggested that measures of the alliance [OR of alliances], as measured by SRS, tend to change over time. ~~, so t~~The fact that lower test-retest reliability occurred over multiple administrations is therefore not surprising. Duncan & Miller [KL12]~~(2006)~~ assessed the feasibility of the SRS by evaluating the utilization or compliance rates in two clinical sites. They ~~Researchers~~ report the that SRS was used 96% (48 of 50 cases) of the time. Much like the ORS, ~~in addition to being reliable and valid~~ the SRS is not only reliable and valid, but is also a brief, user-friendly, four-item ~~items~~ visual analogue instrument [OR In addition to being reliable and valid, the SRS is much like the ORS in that is a brief, user-friendly, four-item item visual analogue instrument] ~~.~~

Both the ORS and the SRS are brief, easy to administer and calculate, and have an essential component of content simplicity. All of these qualities make it feasible to ~~be~~ use~~d~~ on a session- by-session basis in order to enhance client~~'s~~ care. ~~Given the pilot nature of this research t~~These scales allow for an ethical approach to evaluating a new program with a clinical population because they facilitate the ~~allow for~~ gathering and dissemination of participant feedback as well as enable ~~nd allow~~ facilitators to systematically monitor their work on an ongoing basis in order ~~a systematic and ongoing fashion~~ to ensure that it continually reflects the needs ~~and treatment goals~~ of the participants (Saggese, 2005). This is particularly important given the pilot nature of this research.

Qualitative Methods

Qualitative data were primarily collected through ~~participation in~~ a ~~focus group~~focus group in Week 9 and used to differentially assess the acceptability and

effectiveness of the MBCT for pregnant women. In addition, I recorded and maintained field notes directly following each ~~week's~~ MBCT session and immediately following the ~~focus group~~focus group ~~in Week 9~~. ~~In addition, m~~My co-facilitator/research assistant also recorded field notes during each ~~week's~~ MBCT group~~s~~ and after the ~~focus group~~focus group ~~in Week 9~~.

Focus Group. Focus groups are ~~O~~one of the most broadly used techniques in qualitative research ~~is focus groups~~ (Sim, 1998). A focus group is a group interview [discussion] in which participants are asked about their perceptions, opinions, beliefs, and attitudes in regard to ~~towards~~ a specific topic ("i.e.~~,~~ product, service, concept, idea). Focus group often consists of 8-12 participants~~members~~, although some are ~~, sometimes~~ smaller ~~groups,~~ and consist of four to six participants (Strong, Ashton, Chant, & Cramond, 1994). Focus ~~G~~groups are facilitated by a facilitator, who is ~~and are~~ often assisted by a co-researcher (Sim, 1998).

Coenen, Stamm, Stucki, & CiezaIn (2011) recommended conducting ~~performing~~ focus groups if the objective of a ~~the~~ study is to comprehensively explore ~~the~~ participant~~s~~'~~s~~ perspective~~s~~. ~~**Focus group.**~~ The ~~focus group~~focus group information gathering technique is based on an informal discussion among participants ~~and~~ about ~~on~~ a topic selected by the researcher (Acocella, 2012) ~~and facilitated by a facilitator~~ (Sim, 1998). The data emerging from a ~~FOCUS GROUP~~focus group reflect~~s~~ the common experiences of the participants involved in the group (Stewart & ~~and~~ Shamdasani, 1990).

Focus[KL13] group~~s~~ have~~s~~ a number of advantages over interviews and ~~question~~questionnaire~~s~~~~er~~. The main advantage ~~of the focus group~~ is that their cost is fairly low cost in compar~~ed~~ison to interviews. They are fairly easy to organize ~~,~~and ~~as~~

talking with several participants at once increases the sample size, [at once is more time-efficient than one-on-one discussions,] provides sufficiently detailed information in a short amount of time, and generates results relatively quickly ~~one can get results relatively quickly and increase the sample size by talking with several people at once. The FOCUS GROUPfocus group is also easy to organize and provides sufficiently detailed information in a short amount of time~~ (Bertrand, Brown, & Ward, ~~et al.,~~ 1992) [CHECK CITE POSITION AS THE SENTENCES WERE COMBINED]. Group interviews are often a very effective venue for feedback (LeCroy & Daley, 2005, p~~.~~ ~~1~~.105). Kitzinger (1995) suggested~~s~~ that group processes helps people to explore and clarify their views in ways that would be less easily accessible [that would be less likely to occur] in a one-to-one interview or while filling out a questionnaire (Kitzinger, 1995) [OR MOR SIMPLY: clarify their views in different ways than the one-to-one interview or questionnaire methods]. Sim (1998) suggested~~s~~ that ~~the~~ group interaction enriches the information that is generated during focus group and prompts a ~~provides~~ rich understanding of people's experiences. For example, Butler (1996) suggests that participants'~~'~~ statements in focus groups can motivate ~~be a stimuli for~~ other participants to share similar experiences or problems ~~in the discussion~~, which does not occur in ~~than~~ alternative methods of data collection (Butler 1996). Powell, Single, & Lloyd (1996) suggested that the non-directive nature of focus groups gives ~~allows~~ participants many opportunities to comment, explain, disagree, and share experiences and attitudes (Powell, Single, & Lloyd, 1996). Further, ~~Compared to an interview~~ focus groups have a more relaxed atmosphere than interviews or questionnaires ~~can be established in focus groups~~ because participants do not expected to answer every question (Vaughn, Schumm, &

Sinagub, 1996). Basch (1987) pointed out ~~suggests~~ that thi~~s~~e relaxed atmosphere ~~in focus groups could~~ can create a setting in which participants ~~where~~ discuss sensitive topics ~~can be discussed more~~ frequently, openly, and truthfully; ~~than in~~ other qualitative methods cannot replicate this process (Basch, 1987). ~~Taken together,~~ I selected the ~~FOCUS GROUP~~ focus group data collection method for all of these reasons, particularly ~~this research~~ because it allows for an interaction among participants and maximizes the collection of high quality information in a short time period.

Focus group procedures. Sim (1998) suggested that when researchers are collecting data via focus group they need to record ~~be collect data~~ not only ~~on~~ what participants say, but also ~~on~~ how they interact with one another; attribute quotations accurately to individual group members; ensure that the process of data collection does ~~should~~ not interfere with or detract from the facilitation of the group; and ensure that the method of recording data does not have reactive effects upon the group participants. Following ~~In line with~~ Sim's guidelines in order to preserve the nature and quality of the data collected, the PI informed the group that she considered~~s~~ them experts in the subject of the research ~~topic~~ as they all attended at least five ~~5~~ out of eight ~~8~~ sessions and that she would ~~will be~~ learn~~ing from them~~ about their experience in the group from them. ~~As far as possible, t~~ The group facilitators adopted ~~a~~ relatively passive role~~s~~ as much as possible and allowed group discussion~~s~~ to be led primarily by~~e~~ the group participants. This ensured ~~ing~~ that dialogue occurred~~s~~ among the group members, rather than between them and the facilitators.

Aocella ~~'s~~ (2012) argued~~s~~ that it is important to distinguish the ~~FOCUS GROUP~~focus group from group interviews because the former ~~by explicit~~ use~~s of~~ group

interaction to acquire data. She warneds against asking questions of each person in turn and urgeds researchers using a FOCUS GROUPfocus group to encourage focus group participants to talk to one another: asking questions, exchangeing anecdotes, and commenting on each others' experiences and points of view. Furthermore Acocella's (2012) arguesd that questions focused on collecting data about individual experiences do cannot stimulate interaction among participants. , rRather, they encourage each member to interact solely with the moderator and to report on his or her their private experience. As Ssuch, these data do not emerge from a discussion of different perspectives and do not represent group themes. In compliance Following with Acocella's (2012) suggestions for the FOCUS GROUPfocus group as a venue for data collection, the participants in this study's focus group were informed that they should develop FOCUS GROUPfocus group discussions should develop among themselves, and that we the facilitators (myself and my co-facilitator for the MBCT groups) would intervene at the minimum. In order to assure the free [OR uninhibited OR spontaneous] production of ideas, we informed participants that they were not expected to comment on or participate in every single aspect of the group discussion. The primary investigator proposed a discussion topic and waited for the participants to generate a discussion – (e.g., expressing their ideas, commenting on each other's ideas, expressing agreement or disagreement, and provideing examples). As the session was semi-structured, the participants were able speak about many of the topics without being prompted to do so. The Ffacilitators also avoided asking questions aimed at collecting information about individual experiences. The interview was of a semi-structured nature, so the participants were able speak about many of the topics without being prompted to do so.

The ~~FOCUS GROUP~~ focus group ~~-~~was conducted with all five participants and co-facilitated by ~~. T~~the PI~~rimary Investigator~~, Katya Sivak, and the group co-facilitator, Amrita Grewal,~~ co-facilitated theFOCUS GROUP focus group~~. The p~~P~~articipants were asked to discuss their experience of the MBCT program. Questions from the Finucane and Mercer (2006) study were adopted as prompts. ~~Below is a list of~~ The focus group prompts that were used to gather the information necessary to answer the research questions are as follows:~~.~~ ~~The interview was of a semi-structured nature, so the participants were able speak about many of the topics without being prompted to do so.~~

1. What was your experience in the group?
2. In general what did you think of the overall approach?
3. What aspects of the course did you find beneficial?
4. What aspects of the course did you find difficult/ unhelpful?
5. What did you think about the length of the course?"
6. Are there any techniques you [will] continue to use?" [NOTE: 'will' seems appropriate but you can't include it unless it was actually in the question]
7. Do you feel better able to cope with adversity than before you started the course?

The ~~focus group~~focus group was audio and video recorded for subsequent transcription and thematic analysis. ~~HOW MANY?~~One Zoom H2 Ultra-Portable Digital Audio Recorder~~s~~ was ~~were~~ used for audio recording and a Flip UltraHD Video Camera was used for video recording~~ the FOCUS GROUP focus group~~; the camera was positioned ~~placed~~ so that all the focus group~~focus group~~ participants were visible on the screen. This ~~Recording of participants was done for~~ enhanced accuracy and the ease of analysis. The ~~FOCUS GROUP~~ focus group was transcribed verbatim from the slowed-

down ~~down~~ audio-recording using then AudioSpeed Program and then checked against the audiovisual recording. That is, video footage was used to confirm or clarify the identity of the speaker during transcription. To protect participants' confidentiality, I removed all names from the transcript.

Focus group transcription. The ~~FOCUS GROUP~~ focus group ~~-~~was transcribed in its entirety using the audio and video recordings. Video recording was important for capturing nonverbal communication.~~, and is the best attempt to a verbatim~~The written account of what was *said* in the ~~focus group~~focus group is as close to verbatim as possible. ~~Video recording was important to capture nonverbal communication.~~ To that end, ~~ensure that focus group transcripts are verbatim accounts of what transpired~~ I used strategies suggested by Poland (1995) for maximizing transcription quality. During the transcription process I revisited the ~~my~~ field notes I had taken after the focus group. This was done to ensure that the transcripts captured participants' ~~the~~ utterances as closely as possible when ~~as~~ they were video and audio recorded. ~~As far as possible, d~~During the transcription process I noted ~~aspects of~~ emotional nuances ~~context,~~ such as volume, the ~~and~~ intonation of voices, pauses, sighs, laughter, and emphasis as much as possible. For example, participant 5 said, "Can I tell you it's a little weird to start without a check-in. I'm like so how are <u>you</u> guys?" ~~In t~~This example highlights ~~underscoring indicates~~ how ~~stress, via~~ pitch and/or amplitude can stress a point. Another example is ~~a~~the following quote from participant 3:~~,~~ "I've got ENOUGH TO WORRY ABOUT". In this example capital letters in the middle of the sentence indicate especially loud sounds relative to the surrounding talk and indicate that the participant is very worried.

For the purpose of the thematic analysis, the transcript was not edited or tidied up to make individual statements, trains of spoken thoughts, reflections, or comments sound better grammatically or otherwise. The PI ~~primary investigator~~ and research assistant ensured that the omitted sections did not considerably affect the interpretation of the text. I completed the first transcript using a slowed down audio recording 2 days following the ~~focus group~~focus group. Two days later, I watched the video recording and reviewed the transcript for accuracy. Because transcription is considered an interpretive activity (Lapadat & Lindsay, 1999), my co-facilitator/research assistant reread ~~read~~ and visually tracked the transcript while simultaneously watching and listening to the audiovisual recording ~~of the focus group~~focus group. She subsequently ~~has~~ made a few adjustments to the transcripts, which I re-checked and agreed with. These adjustments were either misspelled words or words accidentally omitted when I performed ~~during~~ my transcription ~~process~~.

Field notes. Field notes are personal written accounts of what a researcher hears, sees, experiences, and thinks in the course of a qualitative study (Bogdan & Biklen, 2003). Bogdan and Biklen [KL14]~~(2003)~~ argued that ~~not only are~~ the meaning and context of ~~the~~ interviews are captured more completely if they are supplemented by written descriptive field notes and ~~, but~~ that reflective field notes~~, which reflect which are personal accounts of the course of inquiry,~~ capture researchers' reactions, ideas, hunches, impressions, feelings, and concerns. Bogdan & Biklen ~~(2003)~~ pointed out that qualitative research requires long-term contact with participants, which ~~and that this~~ can overwhelm researchers. Reflective field notes are one way of attempting to acknowledge, document, and control the effect of the research on the researcher. Essentially, ~~and~~ researchers ~~to~~

record their ~~her~~ thoughts, feelings, and ideas in order to conduct ~~accomplish~~ a better study. In addition, ~~D~~descriptive field notes provide clues~~,~~ that help the researcher to ~~which help~~ make analytical sense out of what he or she ~~the researcher~~ is investigating (Bogdan & Biklen~~, 2003~~).

Accordingly, after each session, the PI ~~primary investigator~~ and the group co-facilitator had a 10-15 minute~~s~~ debriefing session. [KL15] ~~Then I, t~~The PI ~~primary investigator,~~ then wrote descriptive, ~~and~~ reflective fi~~e~~ld notes, as described by Bogdan & Biklen (2003). In my field notes, I included a short summary of our debriefing session;~~,~~ descriptive and objective details of the session (e.g.~~,~~ descriptions of conversations and themes that occurred ~~ing~~ in the session~~,~~ and ~~women's~~ requests for program adjustments), and; ~~of~~ my concerns, thoughts, hunches, feelings, or ideas at the time (e.g.~~,~~ ~~noticing that and~~ wondering why the women were becoming restless after a 25-minute ~~minutes of~~ body scan meditation or ~~, having a~~ feeling that the arrival of a ~~the~~ new, very outspoken group member in the second group had an influence on the pre-existing ~~already formed~~ group dynamics).

Data Analysis

Quantitative Analysis

All data were entered twice and thoroughly checked to ensure accuracy. Descriptive statistics such as means, standard deviations and proportions were used to describe clients' ~~the~~ characteristics ~~of clients~~ (Table 1). It was not possible to perform a~~A~~nalyses [OR Chi-square test analyses AND DELETE using Chi-square tests BELOW] assessing the relationships between ~~among~~ the categorical demographic variables of the sample (e.g., sex, ethnicity, relationship status, employment status) and the outcome

variables ~~were not possible~~ using Chi-square tests due to the small cell sizes (*N*=5). Pearson correlations were conducted to examine if there ~~are~~were any significant relations between the ~~among~~ continuous demographic and dependent variables within the full sample (N=5).

HADS, W-DM, ORS, and GSRS questionnaire data were assessed using descriptive, within-group correlations and pre/post intervention paired t-test statistics. Given that the study is exploratory, analyses were ~~was~~ two-tailed and performed at $p < 0.05$. All statistical analyses were performed using the [?] STATA version 10. Paired t-tests were applied to T1 and T2 anxiety and depression (HADS) as well as ~~nd~~ worry about difficult mood and coping with difficult mood (W-DM) scores in order to assess ~~for~~ measurable within-group change as a function of MBCT the intervention. ~~treatment.~~ In the case of the ORS and GSRS, paired t-tests were applied to the computed scores for each session in order to assess for measurable change in response to completing each MBCT session. We reported all statistically significant results where $p < 0.05$.

Given the limitation of the study's small sample size and the sample's insufficient power [NOTE: I added 'the sample's' but am not sure what insufficient power refers to – 'relatively small level of power' might be better. As written, it infers a negative in suggesting the group was too small to be powerful] , I implemented Cohen's *d* as a way to assess the magnitude and clinical or practical significance of the differences between the T1 and T2 means in terms of effect sizes (*ES*). Reporting ~~of~~ the effect size for all outcomes is becoming a common "good research" practice in ~~the~~ peer-reviewed psychology literature (Durlak, 2009). Durlak[KL16] suggests that researchers should report ESs for all outcomes regardless of their p-values, especially when reporting on

studies that use ~~with~~ small sample sizes. Results that are significant are not always noteworthy in a practical sense, especially when a small sample is used to gather data. The use of the ES in result interpretation highlights the distinction between statistical and practical significance. That is, [OR In addition? As such?] ES emphasize ~~highlights~~ how much of the dependent variable can be controlled, predicted, or explained by the independent variables.

Furthermore, ~~this study contains a very small sample size and~~ in studies with small sample sizes~~,~~ like this one, the addition of data from a single participant can shift the [OR 'a'?] p level from above.05 to ~~one~~ below.05 without any change in the ES. For example, Snyder & Lawson, (1993) demonstrated that ~~how~~ in studies with small sample sizes and ~~with~~ a magnitude of effect as large as a *d* of.66, the addition of data from a single subject changed results from ~~being~~ non-significant ($p > .05$) to ~~being~~ significant ($p < .05$) without any change in the ES.

Cohen's *d* is one of the most commonly used measures of effect size or clinical significance when sample sizes are small because it is independent of sample size(Cohen, 1988). Given the limitation of small sample size and insufficient [a relatively low level of] power, I implemented Cohen's *d* as a way to assess the magnitude and clinical or practical significance of the differences between the T1 and T2 means in terms of effect sizes (*ES*). Cohen's *d* is calculated by dividing the difference between the two means by the common or pooled standard deviation for the data. In the case of paired t-tests, the original standard deviations of the T1 and T2 means are used to compute d (reference). Effect sizes are considered small where $d = 0.2$, medium where $d = 0.5$, and large where $d = 0.8$ (Cohen~~,~~ ~~1988~~). [KL17]

Qualitative Analysis

Qualitative data analysis addressed questions of acceptability and effectiveness. Interview transcripts were thematically analyzed and coded using Bogdan and Biklen's (19923) method. Specifically, my research assistant and I interview data were read and recursively divided the interview data into small, meaningful segments collaboratively by my research assistant and me. We focused on content that was specific to two areas, namely: (a) what was helpful, and (b) what was effective. Themes were identified if at least 3 of the 5 participants (i.e., 60%) spoke directly about to what became anthe overarching category and constituted ing a theme. Weak-form endorsement of each theme was also recorded. Participants were considered to demonstrate endorsement of an idea (and which later emerged as a theme) by making a short supportive comment such as "yes," "ahha," or 'that's for sure'. The endorsement of themes later emerged as a theme and weak endorsements were also recorded. To increase coding reliability and thematic representativeness, I engaged in peer consultation with my research assistant and thesis supervisor to where we discussed coding, the content of themes, representative quotes and labels for themes. After several discussions, the themes were summarized into concise sentences (e.g., Overall, the content of the Momfulness group reminded me to take care of myself or; I found mindfulness to be a portable and practical coping strategy that I could use when my other coping strategies were not available). A total of twenty statements were presented to participants for member checking, a . The process which of member checking increases and assesses the external validity or transferability of qualitative findings (Krefting, 1990). All participants were asked to read and comment on the appropriateness of the final themes and all five (100%) of the participants

contributed their opinions to the deductive and inductive thematic verification process. Findings from the thematic analyses werearee independently reported and linked with the study's findings in Chapter 3.

Chapter Summary

In this chapter I have detailed what procedures were undertaken to generate come up with the research results. First, I began with described ing my participants, and the recruitment process, and followed by the research design method. Second, I outlined the MBCT intervention and the modifications to it that were made for this research project. Thirden, I presented the demographic questionnaire and other qualitative and quantitative measures used in theis study. Fourth, I described the procedure for qualitative and quantitative data analysis. [NOTE: I don't think the ethical considerations were included?] Lastly, I commented finished the chapter with notes on the ethical considerations pertinent to of the proposed study. The next chapter will detail the results of the study.