



CHAMPLAIN MATERNAL NEWBORN REGIONAL PROGRAM
PROGRAMME RÉGIONAL DES SOINS À LA MÈRE
ET AU NOUVEAU-NÉ DE CHAMPLAIN

Preparing to Become a Parent... Before Baby's Arrival

- An Innovative Strategy -



CMNRP's Postnatal Plan Workgroup Report

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on behalf of the

CMNRP Postnatal Plan Workgroup

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Disclaimer

Please note that the terms “mothers” and “women” used in this report are meant to refer to all expectant and birth parents regardless of gender or gender identity.

Although significant effort has been made to ensure the accuracy of the information presented in this report, neither the authors, CMNRP, nor any other parties make any representation or warranties as to the accuracy, reliability or completeness of the information contained herein.

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Executive Summary

In January 2017, a workgroup of new parents and interprofessional perinatal care providers from across eastern and southeastern Ontario was convened to explore ways in which we could assist expectant mothers to better prepare for the immediate postpartum period. After conducting an environmental scan to confirm that no tool existed to achieve this purpose, the workgroup conceptualized and designed a checklist called the *Good Parenting Start (GPS): A Roadmap to Getting Ready to Go Home with Baby*. The GPS focused on topics identified by the workgroup parents as being most important to them, having recently transitioned to home with a new baby. The workgroup then designed a pilot intervention study using a pre/post survey design. The purpose of the study was to evaluate the checklist. Research ethics board approval was obtained for this project. Funding was received from the Women's College Hospital, Women's Xchange 15K Challenge.

134 pregnant women enrolled in the study and completed a pre-intervention survey. 95 participants completed a post-intervention survey (response rate = 70.9%). Forty percent (n=38) of the participants who completed the post-intervention survey identified that they used the GPS checklist given to them during their pregnancy. Of those that did not use the GPS, the most commonly identified reason was because they forgot about it (68.4%). No participants indicated that the checklist was too difficult to use.

Of the participants who used the checklist, 94.7% thought the checklist was very easy/somewhat easy to use, 78.9% thought the checklist made them think about topics or situations that they may not have thought about and 94.7% thought that the checklist touched on most topics of concern. There was a high level of satisfaction with the checklist and 65.8% indicated that they would use the checklist for a future pregnancy. Many participants would have preferred receiving the checklist electronically and earlier in pregnancy.

Surprisingly, it appeared that those who did not use the checklist reported a higher rating of feeling "definitely ready" to go home after birth, compared to those who used the GPS checklist (60.7% vs 50%). Approximately 2/3 of participants were aware of some community resources, regardless of use of the checklist, and 10.5% overall indicated that they were "not aware of any community resources". This indicates that more work needs to be done to raise awareness of existing resources.

Given the positive results of this pilot, the following recommendations were made by the workgroup:

1. Explore the potential of revising the GPS checklist in light of feedback received and opportunities for alternative formatting and distribution options.
2. Encourage organizations and health care providers choosing to implement the checklist to provide it to pregnant women early in the prenatal period and as part of an integrated education strategy.
3. Suggest and highlight high quality resources that perinatal care providers can use to complement the checklist.
4. Collaborate with partners to create public health messaging "from moms to moms" about the importance of preparing for parenting during the prenatal period.

Introduction

Historically, mothers and babies stayed in the hospital a few days following birth, which allowed time for perinatal care providers to teach new parents about their newborn and about maternal self-care. Over the past two decades, Canadian hospitals have been under increasing pressure to decrease the length of stay for new mothers and newborns. This leads to unique challenges related to limited time available for postnatal teaching and mothers' inability to process and retain an overwhelming amount of information, being exhausted from birth. This can potentially result in parents' gaps in knowledge of available supports during their transition from hospital to home.

In the 1990's, Health Canada implemented a program called the "Postpartum Parent Support Program" or PPSP (Health Canada, 2013). There were a number of resources associated with the PPSP including a booklet for parents and a reference manual for health care professionals. The booklet had a list of postnatal care questions that parents could circle if they needed more information about specific topics. To ensure consistency, there was a corresponding evidence-based manual for health care professionals with the answers to the questions. To the best of our knowledge, the outcomes of this program were never formally evaluated nor do we know what impact, if any, it had on improving parental knowledge. Additionally, these resources have not been updated since the early 2000's. However, in recent years, the Best Start Resource Centre developed Key Prenatal Messages which include postnatal topics that in many ways resemble the content of the PPSP (Best Start Resource Centre, 2018). The topics covered include newborn care, newborn safety, breastfeeding, recovery after birth and transition to parenthood. Despite these resources being available, there remains a significant gap in parental knowledge which is magnified by a shortened length of hospital stay.

To better understand this issue, CMNRP explored hospital discharge experiences of new parents and perinatal care providers through two bilingual online surveys (CMNRP, 2017). Results from the parent survey indicated that:

- 27.7% of new parents spent little to no time during pregnancy learning about postnatal care;
- 30.2% identified a lack of readiness to go home following birth;
- 71.9% retrospectively felt the prenatal period was the best time to learn about caring for themselves and their babies.

The parallel survey aimed at perinatal care providers identified that new parents lacked awareness regarding the early follow-up requirements for their newborns and themselves (CMNRP, 2017). This lack of awareness presents potential increased risks of complications for both mother and baby. Expectant parents' knowledge of what to expect when going home with their baby, with a clear follow-up plan, would contribute to ensuring there are no gaps in the care mothers and newborns receive after being discharged from the hospital. A postnatal plan was suggested as a potential strategy to help prepare expectant parents for the early postnatal period.

To explore ways in which we could assist expectant mothers to better prepare for the immediate postpartum period, a workgroup of new parents and interprofessional perinatal care providers from across eastern and southeastern Ontario was convened in January 2017. We received funds from the Women's College Hospital, Women's Xchange 15K Challenge to develop and pilot a postnatal plan, herein referred to as the checklist.

Primary Objectives:

1. To determine the acceptability, comprehensiveness, and usefulness of the checklist.
2. To determine amongst new parents who used the checklist 1) satisfaction with the checklist; 2) time spent antenatally learning and getting prepared to care for their baby and themselves; 3) perceptions about their readiness to go home; 4) knowledge of care for themselves and their baby and follow-up requirements; and 5) overall feelings of preparedness and knowledge of community supports.
3. To determine amongst new parents who chose not to use the checklist 1) time spent antenatally learning and getting prepared to care for their baby and themselves; 2) perceptions about readiness to go home; 3) knowledge of care for themselves and their baby and follow-up requirements; and 4) overall feelings of preparedness and knowledge of community supports.

Secondary Objective:

To determine new parents' preferences regarding how to access the checklist to help them prepare.

Part 1 - Methodology

Checklist Development

The workgroup conceptualized and designed a postnatal plan “checklist” intended to provide guidance to expectant parents to help facilitate a smooth transition following birth (e.g. knowing how to care for self and newborn, finding a care provider for their newborn and breastfeeding support close to home).

The parent experience advisors and health care providers on the workgroup spent considerable time brainstorming and discussing the content of the checklist in order to identify the priority topics that were perceived to be of greatest importance to learn during pregnancy. The checklist included topics identified by respondents from the new parent hospital discharge experiences survey (CMNRP, 2017). It was designed to prompt pregnant women to seek out available resources and information in their community as opposed to providing educational information; we intentionally avoided duplicating existing high quality education resources. Detailed information was not included but rather checklist boxes “yes” and “not yet” indicating specific information recommended to be reviewed in preparation for parenting. The parent experience advisors strongly recommended the use of the words “not yet” rather than “no” to avoid adding pressure or guilt to the expectant women as well as to leave it open for ongoing and future completion of the checklist. The workgroup identified public health units as the best avenue for expectant and new parents to connect with key community resources.

The checklist's topics were categorized into four sections: Caring for Your Needs (which included physical, social, emotional and mental health), Caring for Baby, Feeding Baby and General Topics. The parent experience advisors on the workgroup highlighted the importance of listing mothers' needs prior to the topics about caring for baby, because in the immediate postpartum period, they indicated their focus and the focus of their support people was on the baby.

Once the checklist was finalized, the workgroup hosted a naming contest via social media; all the suggestions were compiled and sent to the workgroup to vote on, and the following name was chosen: *The Good Parenting Start (GPS): A Roadmap to Getting Ready to Go Home with Baby*. CHEO Media House designed an initial draft of the checklist that was reviewed and revised by the workgroup.

Design

The pre/post surveys, designed by the workgroup, incorporated questions from a previously developed parent “Hospital Discharge Experiences Survey” (CMNRP, 2017), new questions which addressed specific research issues, as well as selected questions from Bridget Lynch’s “First 40 Days Class” registration survey. The “First 40 Days Class” is a prenatal session offered to expectant couples in the Toronto area. Research ethics board approval was obtained for this project from the Queen’s University Health Sciences and Affiliated Teaching Hospitals Research Ethics Board (#6021178) and from the Ottawa Public Health Research Ethics Board (Project # 327-17).

Participants

We recruited pregnant women at each of the three pilot sites. Each site was unique and had the potential to engage participants from varying socioeconomic backgrounds. The three pilot sites included the Kingston Health Sciences Centre (a tertiary care (Level 3) obstetrical hospital), Ottawa Public Health (a large urban public health unit), and EarlyON Child and Family Centre - Deep River & Community Resource Centre in Killaloe (a rural community centre drop-in program for prenatal and postnatal clients). The workgroup decided to exclude pregnant women who were receiving care from midwifery practice groups due to the unique pre- and postnatal model of care provided by midwives which offers a significant high level of parental preparation and support.

Potential participants were informed about the study at various gestational ages in their pregnancy. At 32 weeks gestation or more, individuals who wished to enroll in the study completed a contact information sheet and a consent form. Participants were assigned a unique study ID upon registration which allowed the researchers to link the pre and post survey results anonymously. Upon enrollment into the pilot study, participants completed a pre-intervention survey. Neither the pre- nor the post-survey contained any identifying information. Following the completion of the pre-intervention survey, study participants were given a copy of the GPS checklist. The researcher(s) provided brief instructions on the use of the checklist and answered any questions the participants had.

Potential study participants who were interested in enrolling in the study, but were not yet 32 weeks gestation, were encouraged to participate by completing the consent form and the contact information sheet. Once the participant reached 32 weeks gestation, the research team mailed the pre-intervention survey in a self-addressed and stamped return envelope. Upon receipt of the completed survey, the researcher mailed a copy of the GPS checklist.

Data Collection

Pre-intervention data collection was completed on paper copies of the survey. The research team followed-up with all study participants four to six weeks after their estimated date of birth. In total, three attempts were made to contact participants to complete the post-intervention survey. The first two attempts at follow-up were based on the participants’ preferred contact method, the third attempt was via the participants’ alternative contact method. Depending on participants’ preferences, the post-intervention survey was offered by paper, electronically through RedCap or over the phone. Participants were reminded that they did not have to answer questions which made them feel uncomfortable and they could withdraw from the study at any point. After the third unsuccessful attempt to contact a participant had been made, the participant was considered lost to follow-up.

Data from paper copies were manually entered into the RedCap database by the researchers, and responses to telephone surveys were entered directly into RedCap by the researchers during the phone

call. Participants choosing to complete the post-intervention survey electronically received an email with a direct link to the survey.

Data Analysis

Data analysis was completed by two CMNRP Perinatal Consultants and a BORN Ontario data analyst on behalf of the workgroup. Data analyzed included both qualitative and quantitative data. Quantitative data were analyzed using SAS version 9.4. Chi-Square and Fisher’s Exact test were used to compare demographics of the study participants and provide insight into potential sample bias. A p value of <0.05 was used to determine statistical significance in all tests conducted. No formal thematic analysis of the qualitative data was conducted, however, these data were reviewed by the research team and relevant quotes extrapolated.

Part 2 - Results

A total of 134 participants enrolled in the study and completed a pre-intervention survey. Of these, 95 completed the post-intervention survey (response rate = 70.9%). The majority of participants were 26-35 years of age (75.4%), married (73.9%), having their first baby (63.9%), and were English speaking (91%). Approximately 2/3 of our survey respondents (60.5%) reported household incomes over \$70,000, however, 11.2% of respondents chose not to answer that question. Participants were asked about their length of stay in hospital following the birth of their baby. Nearly half of respondents (44.2%) identified that they were discharged home at or before 36 hours following birth. The majority of mother-baby dyads (95.7%) were discharged home together. 67.4% of participants had a vaginal birth (n=64), and 32.6% had a cesarean birth (n=31).

Table 1: Demographics of respondents – Pre-intervention survey questions

Descriptor	Category	n*	%
Age n=134	<20	0	0
	21-25	11	8.2
	26-35	101	75.4
	36 and older	22	16.4
Number of Children n=133	0	85	63.9
	1	24	18
	2	18	13.5
	3 or more	6	4.5
Marital Status n=134	Married	99	73.9
	Common-law	33	24.6
	Single	2	1.5
Primary Language n=134	English	122	91
	French	4	3
	Other	8	6
Health Care Provider n=134	Obstetrician	74	55.2
	Family Physician	26	19.4
	Midwife	8	6
	Nurse Practitioner	12	9
	Other**	14	10.5
Income n=134	Less than \$25,000	4	3
	\$25,000-\$39,999	6	4.5
	\$40,000-\$54,999	12	9
	\$55,000-\$69,999	16	11.9
	\$70,000-\$100,000	19	14.2
	Over \$100,000	62	46.3
	Prefer not to answer	15	11.2

*Numbers are variable as not all respondents answered all questions

** Shared care

There were no statistically significant differences between the demographics of participants who used the checklist versus those who did not in regards to maternal age, number of previous children, number of people living in the household, income, primary language spoken at home, and primary health care provider.

Married women were more likely to use the checklist (81.6% of women who used the checklist were married compared to 66.7% of women who didn't use the checklist) ($p=0.021$). The results need to be interpreted with caution given the small number of participants who used the checklist.

Despite the plan to exclude midwifery clients, eight participants reported having a midwife as their most responsible care provider. As such, the initial analysis excluded data from the midwifery clients. When included in the analysis, there were no statistically significant differences in the results. However, this information should be interpreted with caution as the sample size may have been too small to detect differences.

Use of the Checklist

Forty percent of the participants ($n=38$) who completed the post-intervention survey identified that they used the GPS checklist given to them during their pregnancy.

We asked the participants who did not use the checklist to select all of the reasons why they did not use it: 19.3% indicated that they looked through it and thought about the topics but did not fill it out; 12.3% didn't think they needed a checklist to help prepare; and 7% found the checklist too long. However, the most commonly identified reason for not using the checklist was that they forgot about it (68.4%). No participants indicated that the checklist was too difficult to use.

Satisfaction with Checklist

Of the participants who used the checklist, 94.7% thought that it was very easy/somewhat easy to use; 78.9% thought the GPS checklist made them think about topics or situations that they may not have thought about; and 94.7% thought that the checklist touched on most topics of concern. There was a high level of satisfaction with the checklist and 65.8% indicated that they would use the checklist in a future pregnancy.

Table 2: Satisfaction with checklist

Question	Response	%
How happy are you with the postnatal checklist?	Very happy	15.8
	Happy	50
	Neither happy nor unhappy	31.6
	Unhappy/very unhappy	2.6
Would you use the checklist again if you were to have another baby?	Yes	65.8
	No	34.2
How much did the postnatal checklist help you to prepare to take care of your baby after going home with your baby?	A little bit	36.8
	Somewhat	50
	A lot	13.2

Time Spent Learning in the Prenatal Period

Participants were asked "How much time have you spent learning to care for your baby?" Half of the respondents spent some time, but not a lot of time, learning about baby care, regardless of whether they used the checklist.

Table 3: Amount of time spent learning to care for baby

	Pre Survey				Post Survey			
	Used Checklist		Didn't Use Checklist		Used Checklist		Didn't Use Checklist	
	n	%	n	%	n	%	n	%
How much time?								
No time	4	10.5	3	5.3	2	5.3	4	7
Very little time	7	18.4	14	24.6	5	13.2	9	15.8
Some time but not a lot of time	19	50	30	52.6	20	52.6	28	49.1
A lot of time	8	21.1	10	17.5	11	28.9	16	28.1
Total	38	100	57	100	38	100	57	100

Participants were also asked “How much time have you spent during this pregnancy learning to care for yourself?” As anticipated, participants spent less time learning about self-care.

Table 4: Amount of time spent learning to care for self

	Pre Survey				Post Survey			
	Used Checklist		Didn't Use Checklist		Used Checklist		Didn't Use Checklist	
	n	%	n	%	n	%	n	%
How much time?								
No time	4	11.1	7	12.5	9	23.7	16	28.1
Very little time	13	36.1	16	28.6	12	31.6	16	28.1
Some time but not a lot of time	16	44.4	29	51.8	16	42.1	20	35.1
A lot of time	3	8.3	4	7.1	1	2.6	5	8.8
Total	36	100	56	100	38	100	57	100

There were no significant differences in time spent learning between participants who used the checklist versus those who did not. The data were further analyzed by parity. Not surprisingly, multiparous women in both groups spent less time preparing for the postpartum period. Nulliparous women spent significantly more time learning to care for their baby, regardless of their use of the checklist. There were no significant differences in regards to parity for learning about self-care.

Table 5: Learning to care for baby

	Used Checklist	Didn't Use Checklist
Pre survey	p=0.0012*	p=0.0032*
Post survey	p=0.0192*	p=0.0073*

Fisher's Exact Test comparing nulliparous versus multiparous women

* Significant p<0.05

Table 6: Learning to care for self

	Used Checklist	Didn't Use Checklist
Pre survey	p=0.7742	p=0.0998
Post survey	p=0.9268	p=0.7602

Fisher's Exact Test comparing nulliparous versus multiparous women

Methods of Learning

Respondents were asked “In what ways are you learning to care for baby?” and were provided with multiple answers to select and could make additional comments. The top three methods included talking with family and friends, looking at websites and blogs, and reading books and articles. The most

common websites and blogs participants accessed were: BabyCenter, *What to Expect When You're Expecting*, the Bump, YouTube, Pinterest, and Facebook. The results were similar between the pre- and post-intervention surveys. Approximately 2/3 of participants reported talking with a health care provider; the survey did not prompt the participant to identify which health care provider they consulted.

Table 7: Top methods of learning about postnatal topics

	Pre Survey %	Post Survey %
Talked to family & friends	82.8	83.2
Looked at websites & blogs	79.1	73.7
Read books & articles	74.6	66.3
Asked a health care provider	66.4	58.9

Perception of Readiness to Go Home

We wanted to explore parents' perception of readiness to go home with their baby when discharged from hospital. Surprisingly, it appeared that those who did not use the checklist reported a higher rating of feeling "definitely ready" compared to those who used the checklist (60.7% vs 50%). This may be due to the high number of multiparous participants (36%). Approximately 1 in 10 participants "thought they were ready" but got home and realized that they were not. Of greater concern are the nearly 10% of participants who were "not ready" (8.9% who didn't use the checklist and 7.9% who used the checklist).

Table 8: Readiness to go home

Readiness to go home	Used Checklist		Didn't Use Checklist		All Respondents
	n	%	n	%	
Not ready	3	7.9	5	8.9	8.5
Sort of ready	12	31.6	10	17.9	23.4
Thought I was but I wasn't	4	10.5	7	12.5	11.7
Definitely ready	19	50.0	34	60.7	56.4
Total	38	100.0	56	100	100

Awareness of Follow-up Care for Baby and Mom

In our previous work on Postnatal Hospital Discharge Experiences (CMNRP, 2017), we learned that many families did not have an identified health care provider for their newborn, and furthermore, were not aware of the follow-up requirements. This lack of knowledge created a barrier to the transition home. Knowing this, we wanted to determine if parents who used the GPS would be more aware of the follow-up requirements after birth compared to those who did not use the GPS. The results were comparable: regardless of group, the majority of parents were aware of the follow-up care for the baby. Of concern are the mothers in both groups who were "not at all aware" of maternal follow-up care. There were more multiparous women who didn't use the checklist which might explain why there were fewer participants in this group who were "not at all aware" of maternal follow-up.

Table 9: Awareness of follow-up care for mom and baby

Question	Response	All Respondents %	Used Checklist %	Didn't Use Checklist %
To what extent were you aware of the follow-up care that <u>your baby</u> needed after birth?	Very aware	53.7	52.6	54.4
	Somewhat aware	43.2	42.1	43.9
	Not at all aware	3.2	5.3	1.8
To what extent were you aware of the follow-up care that <u>you</u> needed after birth?	Very aware	38.9	39.5	38.6
	Somewhat aware	48.4	42.1	52.6
	Not at all aware	12.6	18.4	8.8

Knowledge of Community Resources

Approximately 2/3 of participants were aware of some community resources, regardless of use of the checklist. In contrast, 10.5% indicated that they were not aware of any community resources.

Table 10: Knowledge of community resources

Question	Response	All Respondents %	Used Checklist %	Didn't Use Checklist %
Immediately after birth, how familiar were you with community services and programs for new parents in your area?	I am aware of many	26.3	21.1	29.8
	I am aware of some	63.2	68.4	59.7
	I am not aware of any	10.5	10.5	10.5

Preferences about the Checklist

Study participants were asked to consider their personal preferences on how they would have liked to have received the GPS. This open-text question highlighted a variety of preferences for receiving the GPS, including feedback about its current booklet format, as an online resource with links to reliable information and as an app. Many participants would have preferred the GPS to be available online. Some comments referred to the convenience of being able to access it via their phones with one mom stating “[There is] not always time to get up and look for papers and sometimes [the papers] can be tossed out by accident or damaged”.

Part 3 - Discussion

Given the increasingly shortened postnatal length of hospital stay, it is imperative that expectant parents acquire basic postnatal care knowledge during pregnancy. Ideally, parents would arrive at the hospital prepared for going home with their baby. This would drastically shift the role of the postpartum nurse, from teaching new information to reinforcing knowledge. In this pilot study, new parents and perinatal care providers co-designed a checklist to help expectant parents prepare for the time after birth. We implemented the checklist at three pilot sites in our region and evaluated the pre/post-intervention outcomes. Engagement in and completion of this study were quite high with minimal attrition. Forty percent of the study participants completed the checklist and reported high levels of

satisfaction. Not surprisingly, nulliparous participants spent significantly more time learning about baby care.

The sample was biased towards women who were already engaged in care and who had attended prenatal classes. Despite the sample bias, many study participants thought the checklist was a good review of information they had learned previously. Some study participants mentioned that they knew the information already, which is not surprising given the number of multiparous women in the study. One participant commented *“It is still hard to prepare before the baby”* and another stated *“... if this was my first baby this would have been super helpful”*.

Given the positive results of this pilot, the workgroup recommends revising the checklist and exploring other formats such as an online version. This could be similar to the [18-Month Well-Baby Visit Planner](#) developed by McMaster University Health Sciences (2018) where parents, in advance of their appointment with their provider, prioritize the topics they would like to discuss. A summary is then generated which can be saved or printed and brought to the visit.

While many women indicated that they would prefer the checklist in an electronic format, we are cognizant that some families and rural communities in our region lack reliable internet access. The postnatal plan workgroup recommends exploring wide distribution of the checklist during routine prenatal interactions such as prenatal appointments, ultrasounds, classes, and hospital tours. However, the checklist needs to be part of an integrated strategy which allows multiple opportunities for expectant parents to use it and realize the need to plan and prepare for the time after birth.

There were suggestions made by study participants to reduce the length of the checklist:

“Make it shorter to read. It was too long. I was busy getting ready for baby and didn’t have time to complete the checklist...”

“The amount of information is overwhelming - felt overloaded with information and made me feel nervous.”

If the GPS checklist was utilized as an integrated part of ongoing prenatal care, expectant parents would not as likely feel overburdened with the content. Repeated reference to the GPS checklist by health care providers during the pregnancy would serve as a reminder to use it, decreasing the risk of the checklist being “forgotten”:

“We had renovations happening at the same time and the checklist got lost in the shuffle. Great initiative though!”

“[It] wasn't a priority. We were just trying to survive but it is good for people to have as a reference. Follow-up reminder might help.”

“I liked the look of the checklist, I just forgot about it.”

It was evident that in the absence of reminders, a large number of pregnant women forgot about the GPS checklist and consequently the goal of encouraging prenatal preparation for parenting was not fully achieved.

While the majority of survey respondents indicated they were looking online for information, often they were not accessing high-quality websites. Although the project’s intention was not to duplicate existing resources, participants were looking for specific information within the GPS checklist:

“The checklist was informational and good to start thinking about services. But I thought that it would have more specific local info. Ex: “If you have breastfeeding issues, follow these steps...”

“I thought the list would provide resources i.e. numbers to call, websites etc. I didn't realize I would need to look everything up and keep track of the info myself. Some checklist items were good reminders of things I still needed to do (example find a pediatrician).”

The checklist was intentionally designed so individual communities could direct parents to local resources and support. Further instructions/reinforcement regarding the purpose of the checklist may be beneficial.

In order for a prenatal preparation strategy to be successful, there needs to be interprofessional and intersectoral collaboration across the perinatal continuum. In speaking with participants completing the post-intervention survey, many commented that although they thought they didn’t have time to prepare when they were pregnant, they realized they really didn’t have time after the baby’s birth. This is not a new phenomenon but one that needs to be emphasized with expectant parents and explored further. Parents on our workgroup have suggested that broad public health messages from “moms to moms” could be effective in conveying the importance of prenatal preparation for the postnatal period.

According to the results of both this pilot study and the Postnatal Hospital Discharge Survey (CMNRP, 2017), health care providers are not the top sources for postnatal information during pregnancy in our region; they were ranked as the fourth source of information in both the pre- and post-intervention surveys. Appreciating that there is variability in the knowledge and/or comfort level of providers discussing postnatal topics, as well as insufficient time to discuss these issues during brief prenatal visits, we suggest that an important role of prenatal care providers would be to guide parents towards reliable sources of information from which they can review and clarify the required information.

It is important to note that a question on the pre-intervention survey asked participants to identify the challenges they were worried might happen after birth. Although outside the scope of the current study, these responses are helpful to inform future work (see Table 11). Of note, difficulties coping and anxiety were identified as the two top concerns by over half of the survey participants. Surprisingly, lack of support was not perceived to be an issue, however, as previously mentioned, our sample was biased towards married, higher income, nulliparous participants already engaged in services.

Table 11: Expectant parents’ worries about after birth

Topics	N	%
Difficulties coping	70	52.2
Anxiety	69	51.5
Too much differing information	54	40.3
Infant crying	49	36.6
Depression	44	32.8
Feelings of isolation	35	26.1

The Best Start Resource Centre (2018) states that “research has shown that if parents discuss and consider their expectations prior to the birth of their baby, they may experience less stress and anxiety during parenthood, feel more in control of their situation, and experience more satisfaction within their relationship with their partner as well as their child”. Furthermore, it is important for parents to discuss

expectations and set “...realistic expectations regarding the division of tasks in parenting”. The Postnatal Plan Workgroup members agree with these statements and continue to assert that pregnancy is a better time to align the necessary supports for postnatal care.

Recommendations

The following recommendations were made by the workgroup:

1. Explore the potential of revising the GPS checklist in light of feedback received and opportunities for alternative formatting and distribution options.
2. Encourage organizations and health care providers choosing to implement the checklist to provide it to pregnant women early in the prenatal period and as part of an integrated education strategy.
3. Suggest and highlight high quality resources that perinatal care providers can use to complement the checklist.
4. Collaborate with partners to create public health messaging “from moms to moms” about the importance of preparing for parenting during the prenatal period.

Limitations

Overall, the sample of study participants was biased towards English speaking, high income, married women who had already engaged in care and/or prenatal classes. Our sample did not include vulnerable groups such as young, low income and non-English speaking women despite our efforts to recruit them. The surveys and checklist were only offered in English. A French information letter was provided as needed and Francophone parents were invited to participate in the study if they could read and write in English. In spite of a high response rate (71%), a low proportion of participants used the checklist (40%) and therefore the results must be interpreted with caution.

All three pilot sites had a bias of some sort and thus the results are not generalizable to the general population of expectant parents. For example, one of the sites recruited women at prenatal classes and thus this site was biased towards primiparous participants who were motivated to learn. This pilot study presents some exploratory work but further investigation is required.

There appeared to be a recall bias which was evident after completing statistical analyses comparing similar pre- and post-intervention survey questions. Given the length of time between birth and completion of the post-intervention survey (4-6 weeks postpartum), this is not surprising. Participants may have forgotten information, had inaccurate recall about the amount of time spent preparing, or potentially reported inaccurate information when completing the surveys.

Finally, we didn't collect detailed information about how participants used the checklist other than 39.5% who indicated they wrote on the checklist. Interestingly, 19.3% of participants looked at it but reported not using the checklist. We ran an analysis to determine if there were any significant findings when this group was combined with those who reported using the checklist but the sample was likely too underpowered to detect a difference.

Future Research

Potential future research using the checklist may be beneficial in examining:

- Use of the checklist when given to expectant parents by their prenatal care providers as part of an integrated prenatal education strategy.
- Use of the checklist when provided in a different format (e.g. electronic or app).
- Use of the checklist by women with health inequities and associated outcomes.
- The concept of preparing for parenthood (i.e. learning about postnatal care in addition to purchasing baby items as preparation for baby's arrival).
- Qualitative research to better understand pregnant women's perceptions of time prenatally and postnatally.

Conclusion

Parent experience advisors were at the core of planning and evaluating this pilot study. We have identified an innovative, satisfactory strategy that, on its own, does not appear to be sufficient to change behaviour but rather needs to be part of an integrated knowledge strategy. **Smooth transition from hospital to home is possible but only if well planned.** We need to raise parental awareness about the importance of building knowledge in the prenatal period. The key to success will be continuing to work with families and health care providers to identify the most effective strategies to increase expectant parents' knowledge.

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Appendices

Appendix A – Good Parenting Start (GPS) - Cover Page



A copy of the GPS checklist can be accessed at
http://www.cmnrp.ca/en/cmnrp/Postnatal_Plan_p4776.html



Postnatal Checklist Survey PRE-INTERVENTION SURVEY

ID# _____

Please tell us about yourself:

- 1) When is your due date? ____ (Day) ____ (Month) ____ (Year)

- 2) How old are you?
 - Less than 20
 - 21-25
 - 26-35
 - 36 years or older

- 3) What is your marital status?
 - Married
 - Living with a partner (common-law)
 - Have a partner (not living together)
 - Single
 - Separated
 - Divorced
 - Widowed

- 4) How many children do you have?
 - 1
 - 2
 - 3 or more
 - I am currently pregnant

- 5) How many people live in your house (including yourself)? *(open text)*

- 6) What is your total yearly household income?
 - Less than \$25 000
 - \$25 000 - \$39 999
 - \$40 000 - \$54 999
 - \$55 000 - \$69 999
 - \$70 000 - \$100 000
 - More than \$100 000
 - I prefer not to answer

- 7) What language do you speak most often at home?
 - English
 - French
 - Other, please describe:

- 8) What type of health care provider has cared for you the most during this pregnancy:
 - Family Doctor
 - Obstetrician
 - Midwife
 - Nurse Practitioner
 - Other, please describe: *(open text)*

- 9) As you prepare for the arrival of your baby, what are your priorities? (*select all that apply*).
- Setting up the nursery
 - Buying baby clothing and baby paraphernalia including stroller, car seat, baby sling, etc
 - Buying baby-care products
 - Prenatal classes with a class on baby care
 - Breastfeeding classes
 - Baby care classes (separate from prenatal classes)
 - Organizing household help following the birth
 - Other, please describe: (*open text*)
- 10) How much time have you spent during this pregnancy learning to care for your baby?
- No time
 - Very little time
 - Some time but not a lot of time
 - A lot of time
- 11) In what ways are you learning to care for your baby? (*select all that apply*) (*checkbox*)
- I have read books and articles
 - I have looked at websites/blogs/social media
 - I have asked my health care provider(s) questions
 - I have talked to my family and friends who have kids
 - I have attended prenatal classes/parenting classes
 - I have learned about services near where I live
 - I have called an information line
 - I have attended a drop-in
 - I have had a home visit (e.g. public health nurse, home visitor, community worker)
 - I have taken care of babies before
 - Other, can you please tell us more: (*open text*)
 - I did not look for information
- 12) How familiar are you with community services and programs that are available to new parents in your area?
- I am aware of many
 - I am aware of some
 - I am not aware of any
- 13) To what extent are you aware of the follow-up care that your baby will need after birth?
- Very aware
 - Somewhat aware
 - Not at all aware
- 14) How much do you know about newborn care?
- Nothing
 - Very little
 - Some things
 - A lot
- 15) How much time have you spent during your pregnancy learning to care for yourself after your baby is born?
- I have not spent any time
 - Very little time
 - Some time but not a lot of time
 - A lot of time learning

- 16) In what ways are you learning to care for yourself after the birth of your baby? (*select all that apply*)
(checkbox)
- I have read books and articles
 - I have looked at websites/blogs/social media
 - I have asked my health care provider(s) questions
 - I have talked to my family and friends who have kids
 - I have learned about services near where I live
 - I have called an information line
 - I have attended a drop-in
 - I have had a home visit (e.g. public health nurse, home visitor, community worker)
 - I have had a baby before
 - Other, can you please tell us more: (*open text*)
 - I have not looked for this information yet
- 17) To what extent are you aware of the follow-up care that you will need after your baby is born?
- Very aware
 - Somewhat aware
 - Not at all aware
- 18) How much do you know about caring for yourself after your baby is born?
- Nothing
 - Very little
 - Some
 - A lot
 - Everything
- 19) How much do you know about what to expect after birth?
- Nothing
 - Very little
 - Some
 - A lot
 - Everything
- 20) Have you and your partner discussed what your needs will be in the early days and after the birth?
- Yes
 - No
- 21) Identify the challenges you are worried might happen after the birth. (*Select all that apply*):
- Difficulties coping
 - Feelings of isolation
 - Anxiety
 - Infant crying
 - Tension or relationship issues with your partner over parenting styles
 - Lack of support from your partner
 - Depression
 - Too much differing advice from family and friends
 - None of the above
 - Other, please describe: (*open text*)

Appendix C – Post-Intervention Survey Questions



CHAMPLAIN MATERNAL NEWBORN REGIONAL PROGRAM
PROGRAMME RÉGIONAL DES SOINS À LA MÈRE
ET AU NOUVEAU-NÉ DE CHAMPLAIN

Postnatal Checklist Survey POST-INTERVENTION SURVEY

ID# _____

- 1) What is your baby's birth date?
- 2) How was your baby born?
 - Vaginal birth
 - Cesarean birth
- 3) How long did you stay in hospital after your baby was born?
 - Less than 6 hours
 - 7-12 hours
 - 13-24 hours
 - 25-36 hours
 - 37-48 hours
 - 49-60 hours
 - 61-72 hours
 - I delivered at home (*branching logic- skip next question*)
 - Other, please tell us how long you stayed in hospital after the birth: _____
- 4) Was your baby discharged home at the same time as you?
 - Yes
 - No, can you tell us more? (*open text*)

GETTING READY TO BE A PARENT

- 5) During your pregnancy, how much time did you spend learning to care for your baby?
 - No time
 - Very little time
 - Some time but not a lot of time
 - A lot of time
- 6) During your pregnancy, what all did you do to help you to get ready to go home with your baby?
 - I read books and articles
 - I looked at websites/blogs/social media: Can you tell us the websites you looked at most? (*open text*)
 - I asked my health care provider(s) questions
 - I talked with my friends and family who have kids
 - I attended prenatal/parenting classes
 - I learned about services near where I live
 - I called an information line
 - I attended a drop-in
 - I had a home visit
 - Other: Please tell us more: (*open text*)
 - I did not do anything
- 7) When you were discharged home, did you feel you were ready to go home with your baby?
 - Not ready
 - Sort of ready
 - I thought I was ready, but I got home and realized that I wasn't
 - Definitely ready

- 8) Immediately after birth, how much did you know about newborn care?
- Nothing
 - Very little
 - Some things
 - A lot
- 9) How much time did you spend during your pregnancy learning to care for yourself after birth?
- I have not spent any time
 - Very little time
 - Some time but not a lot of time
 - A lot of time
- 10) Immediately after birth, how familiar were you with community services and programs for new parents in your area?
- I am aware of many
 - I am aware of some
 - I am not aware of any
- 11) To what extent were you aware of the follow-up care that your baby needed after birth?
- Very aware
 - Somewhat aware
 - Not at all aware
- 12) To what extent were you aware of the follow-up care that you needed after birth?
- Very aware
 - Somewhat aware
 - Not at all aware
- 13) How much did you know about problems to watch for after you got home with your baby?
- Nothing
 - Very little
 - Some things
 - A lot
- 14) How much did you know about who and when to call if you had problems after you got home with your baby?
- Nothing
 - Very little
 - Some things
 - A lot
- 15) Since the birth of your baby, how much emotional support have you had?
- No support
 - Very little support
 - Some support
 - A lot of support
- 16) Since the birth of your baby, how much help have you had with your personal care (at home)?
- No help
 - Very little help
 - Some help
 - A lot of help

- 17) Since the birth of your baby, how much help have you had with household activities (for example, cooking, cleaning, shopping, babysitting) at home?
- No help
 - Very little help
 - Some help
 - A lot of help

- 18) Since the birth of your baby, how much help have you had with baby care?
- No help
 - Very little help
 - Some help
 - A lot of help

- 19) Did you complete the postnatal checklist you received in pregnancy?
- Yes
 - No (please skip to page #)

IF YES (to question #19)

- 20) How easy was the checklist to use?
- Very easy
 - Somewhat easy
 - Neither easy nor difficult
 - Somewhat difficult
 - Very difficult
 - Comments: (*open text*)

- 21) Did you write any information on the checklist?
- Yes
 - No

- 22) How much did the postnatal checklist help you to prepare to take care of your baby after going home with your baby?
- A little bit
 - Somewhat
 - A lot
 - Comments: (*open text*)

- 23) How much did the postnatal checklist help you to prepare to take care of yourself after going home with your baby?
- A little bit
 - Somewhat
 - A lot
 - Comments: (*open text*)

- 24) Did the postnatal checklist make you think about topics or situations that you may not have thought about after the birth of your baby?
- Yes
 - No, can you tell us why? (*open text*)

- 25) Do you think that the postnatal checklist touched on most topics that have been of concern to you?
- Yes
 - No, can you tell us why? (*open text*)

- 26) Do you think that you were more prepared for going home with your baby because you used the postnatal checklist?
- Yes
 - No, can you tell us why? (*open text*)
- 27) How happy are you with the postnatal checklist?
- Very happy
 - Happy
 - Neither happy or unhappy
 - Unhappy
 - Very unhappy
- 28) Would you use the checklist again if you were to have another baby?
- Yes
 - No, can you tell us why? (*open text*)
- 29) Did you like the look of the checklist?
- Yes
 - No
- 30) If you could change the postnatal checklist, what would you do? (*open text*)
- 31) Would you be willing to allow us to contact you to talk more about the checklist and this project?
- No
 - Yes

IF NO (to question #19)

- 32) Can you tell us why you did not complete the checklist? (check all that apply)
- Forgot about it
 - Found it difficult to use
 - Found it was too long
 - I didn't think I needed a checklist to help me prepare
 - I looked through it and thought about the topics but I didn't fill it out
- 33) Did you like the look of the checklist?
- Yes
 - No
- 34) If the checklist had been provided in a different format would you have considered using it? (*open text*)
- Yes. Please tell us more about how you would have liked to receive the checklist (*open text*)
 - No (please explain)