

Let me know if you need anything:New mothers and their support reality

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ABSTRACT

New mothers face many new challenges after childbirth. One of these challenges is postpartum depression which affects 15-20% of new mothers [13]. Untreated postpartum depression negatively impacts the health of the mother and her baby [25]. However, studies show that more social support a woman receives, the less risk she is at for developing postpartum depression [23]. A main challenge facing new mothers is the lack/poor social support they have in their lives. In this paper we will describe the social support needs analysis study conducted using 3 closed Facebook groups of 48 pregnant and new mothers. Using these Facebook groups, we engaged the women in different activities to solicit input regarding their social support network and support needs. The activities included surveys, open ended questions, and discussions. At the end of the Facebook group study, we conducted interviews of 12 participants. We used grounded theory principles to qualitatively analyze the data. This needs analysis will inform the design and development of a socio-technical solution to facilitate social support for new mothers.

1. INTRODUCTION

The birth of a new child is a very exciting time for a new mother and her family. The new mother finds herself navigating the world of infant care and at times it can be very overwhelming for her. Besides the physical recovery, the new mother is also on an emotional roller coaster. Many women often experience a degree of emotional distress such as feeling depressed, having anxiety, and mood swings after birth. This can be attributed to the hormonal changes in their body [24]. This state after postpartum is commonly known as the "Baby Blues". However, some women experience postpartum depression (PPD); postpartum depression is a lot more prevalent with about 15 to 20% of new mothers in the United States are diagnosed with PPD [13]. Postpartum depression (PPD) is a mood disorder that goes beyond the typical "Baby Blues". The symptoms of PPD include fatigue, sadness, crying, anxiety, sleep disorders etc., [15]. The onset of PPD usually occurs one month after the baby is born, but in some cases women have experience PPD during pregnancy and a year postpartum [13]. Untreated PPD has adverse effects on the mother and baby. When a new mother finds that she cannot bond with her new baby, she

isolates herself due to guilt. This isolation further ingrains the depressive symptoms [9]. Women with untreated PPD are more likely to engage in risky behaviors such as smoking and drinking [9]. In studying a high income group, the World Health Organization reports that self-injury in new mothers as the second-leading cause of mortality [9]. Ignoring symptoms of PPD in new mothers increases the risk of morbidity for mother and her child [21]. The risk factors for developing PPD include a history of depression before and during pregnancy, anxiety during pregnancy, stressful life events during pregnancy, pregnancy complications, and low levels of social support, including that from the partner. [21, 25, 15, 26, 23].

There are numerous studies that show the strong relationship between poor social support and PPD. Social support needs can be categorized as emotional, informational, and instrumental support. Emotional support is providing a sympathetic ear to a new mother, while informational support is advising to a new mother. Instrumental support is a physical, direct support, such as cooking a meal for the new mother, or doing the laundry for her [6]. However, new mothers often find themselves without support which contributes to them having a higher risk of developing PPD. [21].

Treatment plans for PPD are well established and include a variety of options such as clinical, psychological, and pharmacological treatments PPD [9]. However, ways to provide adequate social support to prevent PPD or to address it, is not investigated in detail. For example, socio-technical solutions that provide the social support for new mothers are very limited. A majority of such solutions solely focuses on the infant care and the growth and development in utero.

To design a system that facilitates social support for new mothers it is imperative that we understand the support needs and expectations of new mothers and also to understand their support network. In order to do this, we conducted a closed Facebook group study of 48 pregnant women and new mothers over 8 weeks. We prompted the participants through various activities to gather information about their needs and support structure. The purpose of this paper is to present the results from the study. The results

of this study will inform the design and development of a socio-technical system to facilitate social support for new mothers.

2. RELATED WORKS

2.1 Social Support and Health Outcomes

The presence of social support in person's life affects their overall wellness. A study looking at the social support disparity between foreign born people and Swedish born people with Type Two diabetes showed that foreign born people had low levels of social support. This low level of support affected how soon these two groups received support/care for their diabetes; the Swedish born people received care 1-2 weeks after diagnosis and the foreign born people 1-2 years after diagnosis [12]. This delay between the two groups can be explained by the fact that the Swedish people with better social support would seek support for diabetes, while the foreign-born people would wait until they met with health professionals for support. Delaying care for diabetes, puts the person's health at risk. On the other hand, having social support has a positive effect on a person's health. People with chronic diseases often turn to support groups to help them cope with their diseases. These support groups provide useful information that can have a positive effect on a person's symptoms and improve their recovery [7]. Online support groups are becoming increasingly popular. An online group was created for people suffering from irritable bowel syndrome to see the support the people felt they received [7]. The participants cited that besides informational support between the group there was emotional support too; they found encouragement when they experienced difficult events with their disease. A positive support system plays an important role in a person's physical health too. A study looked at the mechanism of disease and how social support affects these mechanisms showed that strong social support decreases the mortality in different types of diseases. It also revealed that good social support has physiological effects on the human body. For example, it can help regulate a normal blood pressure and help the body's cardiovascular system react better to stress [27].

2.1.1 Social Support Postpartum Wellness

A strong correlation exists between the amount of postpartum support a woman receives and the risk of developing postpartum depression (PPD) [21]. Women experiencing PPD state a "loss of identity" and a "loss of control" in their lives. PPD differs from regular depression due to the onset which is about six weeks postpartum [16]. Babies with mothers diagnosed with PPD often have developmental delays in their cognitive and emotional development [16]. A study done by Miller also shares the same results that low postnatal support puts a mother at risk for developing PPD [19]. In addition, a study on pregnant Chinese women also showed that low social support increases the risk of PPD. However, in this study it was shown that women with male infants often had more post-natal support than women with female infants [28]. This difference in care might be explained by cultural norms in China. Even if a mother receives support postpartum the quality of support plays a role developing PPD. Women who were dissatisfied with the level of support shared the same risk of PPD as women with no social support [21]. There exists a strong pattern of low

social support and a higher risk of developing PPD, which endangers the health of the mother and infant. Understanding the relationship between social support and PPD, will help to design a socio-technical solution that focuses on improving the quality and quantity of support a postpartum woman receives.

2.2 Roles and effects of mother's support network

Different people in a new mother's life play different roles in supporting her. Mothers have different expectations from these people. In a study comparing the support of Canadian adult mothers versus Canadian teenage mothers, showed that adult mothers generally received more support than their teenage counterparts. [15]. One study found that low partner support is a major risk factor for postpartum depression. [18]. The results from the Canadian mother study showed that 14 % of teen mothers had PPD compared to 7.2 % of adults [15], due to the fact that the adult mothers had a higher amount of partner support than the teen mothers.

Becoming a parent is a very stressful time. A study by Nuckoll investigated the complications in pregnant women suffering from different levels of stress. This study revealed that women with low social support and high stress suffered more complications than women with high stress, but with high social support [22]. A strong support network can help alleviate this stress by providing better support for a new mother. Finally having adequate levels of partner support leads protective effect which lowers the chances of having a higher score on EPDS

2.3 Social support needs of mothers

2.3.1 Support network for new mothers

Becoming a new mother is a daunting task. *parental efficacy* are a set of beliefs a parent holds in their ability to successfully raise a child and *maternal efficacy* the mother's belief in herself to raise a child. Having a strong family support at six weeks postpartum increases maternal and paternal efficacy. A stronger maternal and paternal efficacy has a positive effect on the new mother's mental health at six weeks postpartum [16]. In a new mother's support network, the role of a partner is significant. Mothers cited their partner as the primary source of support and relied on them for emotional and instrumental support [21]. Studies confirmed that the amount of support the father gives to the mother can help lessen the risk of PPD and improves the relationship between the two [26, 21]. These studies also saw a trend of decreasing support from the father as time went on. Considering that partners often contribute the most support to new mothers, it is important to understand the social support expectations of the mother from her support network, especially the partner.

2.4 Barriers to maternal support seeking

When new mothers reach out for support, there exist many obstacles that hinder their attempt to receive support. These obstacles range from physical obstacles such as living too far away from their family who would help them to obstacles that come from societal norms and pressures. Negron's study on pregnant women saw that a major barrier to seeking support was that women feared about being judged be-

cause they needed help. They believe that society will view them as "bad mothers" because they need help in raising a child, and it is assumed that a mother can handle child rearing on her own [21]. This fear stems from the high expectations mothers place upon themselves due to an idealized picture of parenting presented to them from the media; women feel that they must be "strong and organized" at all times [4]. Bliszta study also showed that women feared a cycle of failure, they believed once they failed in one aspect of motherhood such as breastfeeding then they would fail in all other aspects. The same study also pointed to the fact that women do not seek help because of the stigma surrounding mental illness and especially depression. However, Bliszta findings showed that mothers consider being labeled a "bad mother" worse than carrying the stigma of mental illness. Thus, many mothers will deny the fact they have PPD and ignore their symptoms. Cultural beliefs play a role in a new mother's reluctance to seek help. A majority of minority ethnic groups look down upon those with mental illness so a new mother finds herself in a position where she could be ostracized by her community if she seeks help [1]. Besides the socio problems, the physical recovery on a new mother makes it hard for her to ask for help, new mothers are often sleep deprived and hormonal changes affect their ability to ask for help. [4, 9].

Another barrier to support, is that women do not feel properly supported by the resources available to them. The study on postpartum Scottish women with PPD by McIntosh revealed that the women who sought professional help felt let down and demeaned by the health professionals. They also stated that their support network did not know how to help them because they did not understand what they were experiencing and would offer poor advice [17, 8]. In addition, a women's support network often dictated how she went about looking for help. The women in Bliszta study relied only on their family for support and did not look at outside sources to help them. However, relying on family for support puts the mother in a vulnerable position based on how supportive a family is. A good majority of the barriers mothers face when looking for support are internal. We need to be aware of these barriers in designing the technology.

2.5 Motherhood and Technology

2.5.1 Social media and mothers

In the United States 54% of mothers stated they owned a smart phone, the rise of the smart phone [10] brings information at tip of the finger and this changes how mothers access information. Participants in a study looking at social media and breastfeeding in African American women revealed that the majority of women used their smart phones to look for information. The information they found were on mobile websites and mobile applications such as Babycenter and they would physically show the applications and websites to the researcher on their phones [2]. Morris studied how new mothers of young children used social media and mothers are using social media and Internet to look for information about parenting. Some mothers in this study stated that social media allowed them a safe space to ask questions which they thought to be viewed "stupid" if they asked them in person [20]. Both studies, strongly supported the notion that social media is the medium mothers use to look for information. Asiodu's study highlighted the fact

that the mother's support network often referred or told the mothers which websites or applications they should use [2]. In addition, social media provides a mother a place where she can preserve her identity and not be just known as a "mother" [10]. Mothers place value on retaining their identity and not be known as just a "mom". The participants in Gibson's study used Facebook as a place to note their feelings and post about their interests; this created a space focused on the mother and not her baby. Finally, social media acted as a surrogate support network for mothers. Asiodu's study showed that the women often felt isolated by their peers after birth, and they reached out through social media to look for support mainly in breastfeeding. This type of support seeking is not just limited to social media, women also looked for support through various apps include group/forum area. We should look at the possibility of using social media in the design of the technology due to the prevalence and importance to mothers. Morris's study indicated that Facebook was the most popular social media platform used by mothers (79.3 %), so if social media is used it is important to keep Facebook in mind [20].

2.5.2 Pregnancy and technology

There exists a bountiful amount of technology geared to pregnant mothers. For example, Feedfinder is an application that works in a similar fashion to Trip Advisor, in which it allows women to look up locations and read reviews about the locations breastfeeding experiences from other moms [3]. The few technologies that are geared to postpartum mothers focus on child development and growth. A few examples are Babysteps and Estrellita. Babysteps allows mothers to track the health of their children by putting in medical information and developmental milestones [14]. Estrellita allows parents of premature babies to track their health by entering data [11]. These application mostly serve as a database of information for mothers. Along with these apps, apps designed to track a mother's pregnancy is immensely popular with expecting mothers. These apps provide mothers a plethora of information about their health and gives tips on how to manage their pregnancy [2]. There exists a hole on postpartum technology designed for the health of postpartum mothers. This means there is need for our creation of a technology that helps facilitate an effective support network between the network and mother.

3. METHOD

3.1 Recruitment

After getting the approval from the Institutional review board (IRB), we recruited participants through social media posting at a local birthing services center, a national pregnancy and a parenting network. We got 62 responses of which 48 participated in the study. A compensation of \$50 was given to the participants at the end of the study.

3.2 Participant Information

48 participants consented to be in the study. They were 20-30 weeks pregnant or had a 4 month old infant. The participants were divided up into three groups: first time pregnancy (new pregnancy), experienced pregnancy (already had children), and the new moms groups which included first time moms and experienced moms.

3.2.1 Data gathering

We created three separate closed Facebook groups. One for first time pregnant women (referred to as NP, N=10), another one for pregnant moms (referred to as EP, N=18) and another for moms with a baby less than 4 months old (referred to as Mom, N=20). We posted activities that involved answering to questions in the groups, taking part in on line discussions and completing surveys. We also administered the Edinburgh Postnatal Depression scale survey (EPDS) two times during the study and noted which participants had a positive result. Health professionals use the EPDS to screen new mothers for postpartum depression. The survey consists of ten questions that looks at the emotional well being of the mother. A score above a thirteen is a strong indicator that the mother has postpartum depression and in our study we considered a score above thirteen to be a positive result [9]. The data from Facebook was imported to a qualitative data analysis software, Dedoose.

Activity Table (S=Survey, FT=Free Text, M=Media)	
A1 Introduction(FT)	A2 Preferred time poll(S)
A3 Things I wish I knew(FT)	A4 Edinburgh Survey 1(S)
A5 Circle diagram(M)	A6 Talk about support(FT)
A7 Social Support Communication(S)	A8 Interactions Today(FT)
A9 Advice Columnist-Anxious(FT)	A10 Advice Columnist-Relationship(FT)
A11 Ask Me Anything(FT)	A12 Issues and Worries(FT)
A13 Helpful Resources(FT)	A14 Physical help need(FT)
A15 Technology use (S)	A16 Edinburgh Survey 2 (S)
A17 Needs Survey (S)	A18 Google Search History (M)
A19 Reluctant to ask for help (FT)	A20 App Ideas (FT)
A21 Study feedback survey (S)	

Table 1: Activities

Participant Numbers and Groups		
NP	EP	Moms
P1-P10	P11-P20	P31-P48

Table 2: Participants

3.2.2 Data Analysis

Following the Grounded theory guidelines, we conducted open and axial coding. [5]. We exported the data from the Facebook study to Dedoose; a qualitative data analysis software. As we imported the data to Dedoose it was tagged using descriptors to better manage the contributions from participants belong to different groups. Next we conducted open coding. During the open coding, two researchers closely read the texts, labelled concepts, and developed categories [5]. During open coding, multiple people code the same data in order to keep bias at the minimum and allow for different a way to analyze the data. So two researchers contributed during the open coding. During the axial coding phase, we related similar themes and concepts together to come up with the initial code book. We did multiple iterations of the code book to come up with the final code book used for

the data analysis. We brought in two more coders to code the data. The agreement among the coders was confirmed by the inter coder reliability score of >.84. This shows that the coders strongly agree in how excerpts of texts should be coded

4. FINDINGS

4.1 Changes in social circle and activities

A common change experienced by both the Mom and EP was how the mothers had to adjust their activities to their children’s lives. They found themselves missing out in certain activities they previously participated in due to having children. Most of the activities were leisure activities such as spending time with friends or pursuing the mothers’ hobbies, such as reading. Simple activities we take for granted such as having time to take care of personal care became a luxury to mothers.

“My idea of fun has definitely changed since becoming a mom. I enjoy spending time with my family either way, and I do enjoy going out with friends, but I definitely don’t do it as much now that I have a little one running around. Now I find things like showers and eating a hot meal while my little one naps reinvigorating (haha).”-P32

Another change was that mothers who had friends without children often lamented about not socializing with their old friends. It appeared that having a baby shifted a mother’s social life; from focusing on her to about the baby. Mothers often stated how they felt isolated from their friends due to having a baby.

“I wish I had known how isolating it can be. I’ve made new ‘mom’ friends but it’s distanced me from my best friends because none of them have kids.”-P32

However, the mothers with “new mom” friends found themselves with a group of people who can support them and enjoyed their company. For example, P39 stated:

“And, I made a ton of new mom friends after our first, so this time I don’t have to worry.”

4.2 Coping with new realities of motherhood

4.2.1 Physical limitations

A majority of physical limitations all three groups faced surrounded the physical aspect of pregnancy and recovery. The mothers who were pregnant talked about the pregnancy changes to their body and how it affects their daily activities.

“The main issues I have been having with loosening ligaments that are hip/leg pain has been waking me up multiple times throughout the night, and I have twisted my ankles a few times while hiking on flat ground”-P9

The recovery problems mothers had affected their ability to care for their new babies. Many mothers also stated how they were not aware about issues with recovery.

“Then there was a the bleeding and the engorged breast. It was something no one told me would happen. I did end up with

an infection after birth and didn't know if it was "normal" to feel so sick and have fevers."-P45

4.2.2 Lack of support

Mothers described how their support network could not adequately support them. A main reason for the lack of support was that the support network lived too far away to help the mother. The mothers did not feel comfortable asking for help from people they did not know. Another reason, was that the people in the support network misunderstood the new mother's needs and can not provide the proper support she needed. This misunderstanding was especially true with mothers suffering from PPD these mothers often stated that they felt like no one understood what they were going through and could not provide adequate support to the new mother.

"My husband and mother were all I had-all of my family lives overseas, so that made my support system very small. They didn't understand postpartum depression, no one I knew had been through it themselves, so they couldn't empathize."-P39

There appeared to be gap in communication between the support network and new mother. The new mother often felt like she could not ask for help from her support network because the people in her support network did not know what the mother needed help with. This gap became a barrier to a support and the mothers found themselves

"With regards to the "let me know if you need anything " i feel like people just say it to be nice or they want to help but are not sure how?"-P31

This gap is further noticed due to confusion between the mother and her support network about who will contact whom first. Some of the mothers waited until their support network asked them what they needed help with, but their support network never asked.

4.2.3 Emotional changes

The NP group talked a lot more of their emotional changes than the EP and Mom groups.

"The pregnancy completely takes over my body and changes my personality. I wish I had known how much it would effect my mind" - P13

4.3 Support expectations of pregnant women

A major difference among the groups were their level of expectations from the support network; specifically from the partner. The NP group expected a high level of support from their partner. Their support expectations from their partner revolved more around emotionally supporting and assuring them; rather than instrumental support.

"I expect my partner to be emotionally supportive during this period, as that's as much he will be able to do as I'll be exclusively breastfeeding...."-P6

"my husband will be a good cheerleader."-P9

The EP and the Moms group did expect emotional support, but favored instrumental support; specifically child-

care. They wanted to have someone to be there to watch their older children so they can have time to take care of personal needs. Their support expectations were different due to them already having previous experience.

"I seem to know what to expect this time so that's great. I have fewer questions and feel much more mentally prepared for things. I'm a little more exhausted this time, but that might be due to having a toddler. My feet are a little swollen at the end of the day and I have a little bit of heartburn, both things I had none of the first time."- P23

4.4 Support needs of new moms

The physical support needs between the three groups were very much same. The three groups all agreed that they would like help in meals, whether this be in the form of someone cooking for them or their friends bringing meals to them. Another common need was house cleaning. The women stated that they would like someone to come around and clean their house so they could have time with their new baby. A main theme found in the needs was that the women would like someone to take care of the necessary day to day activities so they can focus their attention on their new infant. This was especially true for mothers who already had children. Physical support was very important to them because they have their hands full already.

4.4.1 First time pregnancy

A main difference between the NP group and the EP and Mom group is that the women in NP group saw emotional and informational support to be more important to them than instrumental support. They talked about the people whom they discussed their pregnancy and listed the people who will provide them advice. These people were the female relatives in their social support circle; the mother of the new pregnant women often appeared as someone who they looked to for advice.

"I may ask my mom or close friends, who live far away, over the phone, about their specific experiences once a week or so."-P1

4.4.2 Additional Support needs

An interesting topic that appeared in mostly the EP group was miscarriage. The mothers talked about how the lack of support they received when dealing with miscarriages. The women felt that people were insensitive about how they felt after having a miscarriage. They wished that speaking about miscarriage would not be as stigmatized and there could exist a support network.

"We got things like 'Well it wasn't really a baby' 'So what they do with it'? 'Well at least it was while you were pregnant and not after they were older and you knew/loved them.' Those comments were horrid. My husband and I would have much rather had a simple "I'm sorry"-P21

"I would love if more women would talk about it. Its so lonely. The loss is real, the pain is real"-P21

4.4.3 Experienced mom

The data from mothers in the EP group showed that instrumental support was crucial for this group. The mothers wrote they needed help in childcare due to the fact they would have to be juggling a new baby with their other children. The mothers looked at childcare as a time for themselves to take care of their basic needs such as sleep and hygiene. The EP group also looked to rely on their support network to help with bringing meals after the first few weeks after birth.

4.5 Role of partner support

Strong partner support lowers the risk of the mother developing PPD [18]. The study revealed that a majority of women stated their partner as their primary source of support. The participants often talked to their parents daily and would talk about "everything." They would often state their partner as providing instrumental and emotional support. Especially in the EP and Mom groups the role of partner support was very important; these mothers stating directly that they will rely on help from their partner after the baby arrived. The partners helped the mothers in childcare (caring for the older children) and helping the mothers with household chores (cooking).

"I would ask my husband to help me with grocery shopping, laundry, cooking, and looking after our baby at midnight. Last but not least, I hope my husband will always be by my side when I need him."-P4

"My husband was very supportive with helping to position the baby, get up with her in the middle of the nights at times and would cook my favorite meals. He was always willing to talk through concerns I had to help us come to the right decisions for us."-P23

4.6 Role of family support

All three groups noted that their mother was a major support to them during and after pregnancy. They often relied on their mothers for advice for caring for the new babies and postnatal care for themselves. The support mothers gave to their daughter was often instrumental with the mothers staying with the new mother and baby even if they lived out of town. The mothers provided new mothers help in cleaning the house, cooking meals, and infant care.

NP: *"I think I will need help with baby stuff I am unfamiliar with such as bathing the baby, changing it's diaper, watching the baby while I shower etc., breastfeeding. I think my mom will be a lot of help for such things."-P3*

EP: *"Definitely anything not directly related to baby care: laundry, dishes, cooking, and just a physical presence to keep company. My mom is planning to be with us for at least a week after baby is born, so hopefully she fills that role well."-P29*

Mom: *"My mom was such a blessing helping cook, clean, do laundry, take care of the baby, run errands, etc"-P41*

4.7 Role of other people support

The three groups relied on different people depending on who was in their social support network. Friends were also

noted as another support group. They often supported the mothers through instrumental support. Meal train was a very popular way the friends provided support. Meal train is a website where different people sign up to bring meals to the receiver and the receiver can note his/her preferences in food. The EP and Mom groups highlighted this as a very helpful (or potential) place of support. *"Someone at work setup a mealtrain.com page to coordinate meals for us. This has helped a lot. People can pick a day and list what they are bringing (for everyone to see, so there are no duplicates). You can list your food preferences too."-P26*

"My boss and coworkers have been great. They organized a meal train for us, so we did not have to cook for 8 weekends after X was born."-P33

"Our faith community (church and others) have been incredibly supportive. They set up a meal train for us so we had meals for two months after he was born."-P36

4.8 Asking for help

Many mothers did not ask for help for several reasons; a major reason was that they felt guilty for asking their support network for help

"It's difficult to accept help at times though, since I've been back to work I still feel guilty if I need additional alone time, or time to get things done which would require someone else holding him. The guilt comes in since I would have already taken several hours away from him during the day and need more, so I haven't been very good about asking for that kind of break."-P38

One participant felt like she was imposing herself on other people and believed that their support network felt like they were obligated to help them.

"I felt like I didn't know them well enough to accept a favor and to be honest, it seems like people offer help just to be polite."-P47

4.9 Technology use of mothers

4.9.1 Reason for technology use

Previous studies looking at the technology use of mothers showed that many mothers sought information and support from various Internet sources such as on line forums and Facebook [10, 2, 20]. We observed this same trend in the three groups. Each group specifically stated using some forum or website as a resource for them. They also saw it as a place to remain connected with the outside world; many mothers used Facebook to share information about the baby and their experience. In addition, technology allowed mothers to communicate with their support network they did this via texting, Facebook chats, video chats.

"My parents- They live 6 hours from us so we utilize a lot of ways with how we communicate (facebook, ooVoo video chat, text, talk on the phone)"-P34

"Pregnancy support groups online I post about weekly with questions, most often about my birth plan and questions regarding our birth."-P21

"With my mother (via text or voice conversation) - at least once a week, we talk much about the pregnancy, how to care for baby, required stuff, and everything that I want to know. With my extended family (via text or voice conversation) - uncertain time, we talk about my pregnancy progress and how excited we are to welcome the baby. With my friends (via Facebook or WhatsApp) - sometimes, when they ask me about my pregnancy."-P4

5. DISCUSSION

5.1 Awareness of life changes to better prepare for baby

AP- The activity responses from the first time pregnant clearly showed that they have an idealized support expectation from their support network. They have high expectations from their support network, especially their partner.

A first time pregnant participant P5 states that *" My partner can be helpful just by being supportive, reminding me that we can do it, and helping with other tasks like cooking, changing diapers, cleaning, etc "*

another participant P6 states that *"I expect my partner to be emotionally supportive during this period, as that's as much as he will be able to do as I'll be exclusively breastfeeding..."*

The first time pregnant women were less concerned about specific challenges after childbirth. Their awareness recovery and post delivery challenges were lacking. The response to the activity "I wish I knew about motherhood" revealed that experienced pregnant women and the new Moms had wished for knowing the realities about her own physical recovery challenges and other realities of motherhood.

EP says: *"Aftercare...what it really is like for yourself after you deliver a baby. I was one of the first of my close friends to have a baby and no one was really open to discuss what you really feel like and go through for a bit after you deliver."*-P27

Mom says: *"I wish to know more about post partum recovery. Some moms mentioned things like 'get a lot of pad', 'you'll be sore for weeks' but noone every got into the details it was worse than I expected"*-P31

While the EP and Mom groups often discussed the reality of PPD, the NP group did not mention it and when they did they were misinformed. It appeared that the NP group did not know of the risks about PPD or believed they could fix it themselves.

"In addition to that,even though some women experience 'Baby Blue or Postpartum Depression Syndrome' (e.g. a feeling that indicates sadness and anxiety for moms after delivering the baby), hopefully, I will not experience that. I would try to overcome that issue from now on by asking great supports from my care network."-P4

5.2 Bridging the gap between reality and expectations

Our study shows that there is a gap between expectations and women's realities after childbirth. We can speculate that the idealization of motherhood through media may be playing a role in creating unrealistic expectations. There is a lack of understanding of the physical and emotional toll the life transition of becoming a mother can take on a woman.

NP - P5 state that *"Most babies sleep often the first few weeks, so as long as I can sleep while baby does I'm not too worried about that initially."*

"But we have support lined up to help if it's an issue. My partner can be helpful just by being supportive, reminding me that we can do it, and helping with other tasks like cooking, changing diapers, cleaning, etc."

There is a gap between the expectations of support and the actual support.

6. LIMITATIONS

The main limitation is the need to have internet connection to participate in the study. Additionally, there is potential for echo-chamber effect. In our study we used triangulation to address that limitation.

7. CONCLUSION

Traditional research methods such as interviews and focus group has many limitations. It is more of a concern in the healthcare research arena because the population that we study has multitudes of limitations due to their health conditions. Those limitations include time and inability to travel. Through this paper we detailed the use of closed Facebook group to engage 48 pregnant and new mothers to understand their social support expectations and realities of support. We found that there is a gap between expectations of support and actual support. We also found that first time pregnant women have an idealized view of motherhood experiences. They are unaware of difficulties they may face postpartum. We found that for pregnant women and new mothers their partner is the main source for support. They all have high expectations of support from the partner. We found that lack of support from partner can cause emotional stress and unhappiness for new moms.

"With husband its face to face and text when he's at work. We talk baby but not in detail as he hasn't got a lot of experience with babies and is easily grossed out lol"-P31

There needs to be novel designs of systems that narrow the gap between the support expectation and reality for new moms and thus avoid the onset of PPD due to lack of social support.

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