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THE ENABLERS AND BARRIERS TO CONTINUE BREAST MILK FEEDING IN WOMEN RETURNING TO WORK

Running head:

THE ENABLERS AND BARRIERS TO BREAST MILK FEEDING

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ABSTRACT

Aim: To describe the enablers and barriers working women's experiences in continuing breast milk feeding after they return to work postpartum in urban Malaysia. **Background:** In Malaysia, urban working women have low rates of breastfeeding and struggle to achieve the recommended 6 months exclusive breastfeeding. **Design:** A qualitative inquiry based on a phenomenological framework and multiple methods were used to explore women's experiences in depth. **Methods:** Multiple qualitative methods using face-to-face interview and participant diary were used. Data collection took place in urban suburbs around Penang

and Klang Valley, Malaysia from March - September 2011. Participants were 40 employed women with infants less than 24 months. **Findings:** Only 11 of the participants worked from home. Based on the women's experiences, we categorised them into three groups: 'Passionate' women with a strong determination and exclusively breastfed for 6 months, 'Ambivalent' women who initiated breastfeeding, but were unable to sustain exclusive breastfeeding after returning to work and 'Equivalent' women who introduced infant formula prior to returning to work. **Conclusion:** Passion and to a lesser extent intention, influenced women's choice. Women's characteristics played a greater role in their infant feeding outcomes than their work environment.

Keywords

barriers, enablers, breastfeeding, interviews, Malaysia, qualitative, working women, nursing
Summary Statements

Why is this research needed?

- Despite the established literature on the risks of formula feeding, for most infants around the world including Malaysia, the World Health Organisation recommendation that all infants are exclusively breastfed has not been achieved.
- Little is known about breastfeeding practices among working women in urban Malaysia. This study is the first empirical research that explores such issues in greater depth using multiple qualitative research methods.
- Two relevant theories were combined to facilitate our understanding of women's experiences of enablers and barrier to maintaining breast milk feeding after their return to work.

What are the key findings?

- Multiple truths exist in working women's breastfeeding behavior and not all women felt that employment was a barrier.
- Passion and to a lesser extent intention, influenced women's choice. Women's characteristics played a greater role in their infant feeding outcomes than their work environment.
- Not all participants in urban Malaysia believed that good motherhood required continued breast milk feeding after return to work.

How should the findings be used to influence policy/practice/research/education?

- Health professionals who are supporting women to reach their breastfeeding goals, need to be aware of the issues facing women returning to work postpartum in order to improve breastfeeding outcomes among working women can be achieved.
- Interventions in the workplace in creating a mother-friendly environment may be useful for most women, but not for those who have decided to formula feed their infants.
- In order to implement or create change in the workplace, using various strategies may help to reach a wider spectrum of women as individual's circumstances and beliefs vary widely.

INTRODUCTION

Historically, feeding newborn mammals with breast milk was never a choice but rather a natural way of feeding. Without the influence of culture and beliefs, babies would naturally continue to breastfeed until the age of 2.5-7 years (Dettwyler 1995). Due to the availability and assumed convenience of formula milk, women today appear to have a choice about infant feeding. Despite the well recognised risks of formula feeding (Sulaiman *et al.* 2013), for most infants around the world including Malaysia, the World Health Organization recommendation that all infants are exclusively breastfed has not been achieved (World Health Organization 2001).

Background

Although almost all Malaysian mothers initiate breastfeeding, Malaysia has the lowest prevalence of six month exclusive breastfeeding rates among Southeast Asian countries (Fatimah *et al.* 2010). Despite the established literature on the risks of formula feeding (Sulaiman *et al.* 2013), most infants do not receive the six months exclusive breastfeeding recommended by the World Health Organization (World Health Organization 2001, Al-Sahab *et al.* 2010).

Working itself may not be the barrier, as flexible working hours (Nazatul & Ruby 2009, Amin *et al.* 2011) and working in a government sector have been found to be enablers for continuing breastfeeding (Amin *et al.* 2011). In their study on exclusive breastfeeding experiences among working women in Malaysia, (Tengku Ismail *et al.* 2012) found that women who felt unsupported at work believed that it was not feasible for them to express breast milk at work.

Working women who were not supported by their families and husbands were less likely to exclusively breastfeed after return to work than women with supportive families (Radzniwan A.R *et al.* 2009, Tan 2011). These studies suggest that in order to continue breastfeeding after return to work, working women need to be supported by their close relatives as well as their colleagues at work.

This is a public health concern as 70% of women in urban Malaysia are employed and the majority are in their reproductive years (Fatimah *et al.* 2010). In Malaysia, female employees are not protected by law to breastfeed (or express milk) at work (Hassan & Musa 2014). Malaysia has no law that supports lactation breaks for breastfeeding mothers at work (Heymann *et al.* 2013) and employers are not mandated to provide childcare facilities for workers with infants (Hassan & Musa 2014).

Therefore, in this article we explore the experiences and challenges faced by working women in urban Malaysia attempting to maintain breast milk feeding. In particular, we discuss how the nature of their work and their working environment influences their ability to breastfeed. We argue that how working women behave and respond to their infant feeding choices is influenced by how they balance work and family commitments (Greenhaus & Beutell 1985) and their predetermined intentions about breastfeeding.

Theoretical frameworks

In this article, two theories are applied to conceptualise the experiences of breastfeeding among working women. Since working interferes with family commitments, the Work Family Conflict framework helps us understand how women manage their multiple roles (Greenhaus & Beutell 1985). The Theory of Planned Behavior (TPB) describes personal attributes that influence women's feeding choice (Ajzen 1991) and combining these two frameworks can assist in our understanding of women's infant feeding practices.

145

146 ***Work Family Conflict***

147 Role conflict is defined as the ‘simultaneous occurrence of two (or more) sets of pressures
148 such that compliance with one will make more difficult compliance with the other’
149 (Greenhaus & Beutell 1985). Based on this definition, Greenhaus and Beutell (1985) define
150 Work-Family Conflict (WFC) as ‘a form of inter-role conflict where the role pressures of the
151 work and family domains are mutually incompatible in some respect’. Consequently, the
152 mismatched expectation as a result of WFC leads to compromising the well-being and health
153 of employees (Grant-Vallone & Donaldson 2001).

154

155 Work-family mismatch can lead to mental or psychological stress in working women (Grice
156 *et al.* 2007), or could compromise their physical health (Grant-Vallone & Donaldson 2001).
157 In addition, WFC has long-term impact as shown in longitudinal studies at six months
158 (Grant-Vallone & Donaldson 2001) and 18 months (Grice *et al.* 2011).

159

160 ***Theory of Planned Behavior***

161 Intention is the central focus in the TPB as it is assumed to be the immediate determinant in
162 performing or not performing an act (Ajzen 2005). Intention to breastfeed has also been
163 suggested not only to predict breastfeeding initiation, but also to influence the duration and
164 exclusivity of breastfeeding (Meedya *et al.* 2010). The review by Meedya *et al.* (2010)
165 concluded that women’s breastfeeding intentions were important modifiable factors in
166 achieving exclusive breastfeeding.

167

168 Other researchers have found that women's breastfeeding intentions are not static. Moore and
169 Coty (2006) used prenatal and postpartum focus group discussions and found that women’s
170 breastfeeding intentions were dynamic and conditional. Mothers' intentions were strongly
171 related to how they feel about their capacity to deal with challenges and their ability to
172 overcome problems (Moore & Coty 2006). Mothers’ intentions may change when they
173 encounter problems (e.g. time constraints at work), suggesting that the relationship between
174 intention and barriers or supports were of circular rather than linear nature (Moore & Coty
175 2006).

THE STUDY

Aim

The aim of the study was to describe the enablers and barriers working women's experiences in continuing breast milk feeding after they return to work postpartum in urban Malaysia.

Design

A qualitative inquiry based on a phenomenological framework and multiple methods were used. An interview guide was constructed and pilot tested in January 2011 prior to the actual interviews. The main question explored in this paper related to women's breastfeeding experience after they return to work. After the face-to-face interview session, the participant was invited to participate in the diary writing and 15 women agreed. Instructions about the diary, task were given to interested participants after the interview sessions were completed. The participants had the choice to decide the length of each entry and they could write as many times a day as they wished for a week. We combined the face-to-face interview and diary methods with field notes and a summary that we made for every participant add depth to the data.

Participants

A total of 40 working women from various ethnic groups (Malay, Chinese and Indian) were eligible if they fulfilled these criteria: age 18 and above; working; at least one infant aged between 6-24 months at the time of the interview(s); able to communicate in English or Malay; healthy and literate. We used purposive sampling where the respondents are deliberately chosen in order to provide relevant information for our research aim (Liamputtong 2012); we also applied a maximum variation technique to ensure the widest possible range of respondents' characteristics (Merriam 2009). We sampled women who work full and part-time, from home and away from home, primiparous and multiparous women with different ethnicities.

Data collection

Data collection took place in urban suburbs around Penang and Klang Valley, Malaysia from March to September 2011. Several child care centers were identified as recruitment sites. The interview guide was pilot tested in January 2011 prior to the actual face-to-face interviews.

All interviews were conducted by the first author and on average each interview lasted around 60 to 90 minutes and took place at locations convenient for the participants.

Ethical considerations

The study was approved by the Human Ethics Committee at La Trobe University (number 10-056, 27 September 2010) and from The Economic Planning Unit, Prime Minister's Department of the Malaysian Government (21 December 2010). The possible risk to identify specific participants was minimised by de-identification of the data and use of pseudonyms for quotes. Participants were informed that if they had any concerns during the project, they could withdraw from the study.

Data analysis

We analysed the data using a thematic approach: 'a method for identifying, analyzing and reporting patterns (themes) in the data' (Braun & Clarke 2006). A theme is identified based on recurrence, repetition and forcefulness of the data (Attride-Stirling 2001). We explored themes within and across participants' stories, closely read and reread the transcripts creating appropriate themes to enable us to answer the research questions.

Firstly, data from the interviews and diaries were transcribed and edited to ensure the sentences were correctly structured grammatically. Then, similar patterns were identified and grouped under the same theme. Later, related patterns were combined into subthemes in a comprehensive thematic analysis. We also used NVIVO 9 software for data storage and management. We integrated and applied the Theory of Planned Behaviour and Work Family Conflict framework in analysing the data.

RIGOUR

In this study, we used a strategy called triangulation to enhance the research credibility. Triangulation entails using multiple strategies as a way of increasing understanding about the research and thus enhances the reliability in research findings (Merriam 2009). According to Patton (1999), there are four distinctive triangulations; these are data, theoretical, investigator and methodological. For this study, we applied three types of triangulation: first, the data using face-to-face interview and written diary; second, the theories using multiple theoretical perspectives which were constructivist and critical and; last, the investigators, with co-authors also reading selected transcripts.

243
244 Additionally, we applied a maximum variation technique during recruitment (Merriam 2009).
245 We provided a thick description of the interviewee's experiences through a thorough
246 interview and explanations (Liamputtong 2013). We also included participants' diary and
247 other form of narrative entries as additional data. We took into consideration the field notes
248 and summaries during analysis. Through a member checking process (Liamputtong 2013),
249 we made the interview transcripts and thematic analysis available to the participants for
250 comments and confirmation through emails. All these strategies were applied in this research
251 to ensure the rigour of the study.

252 253 **RESULTS**

254 **Women's characteristics**

255 A total of 40 participants were interviewed. They were mainly young women aged less than
256 40 with a mean age of 32 years. About half were first time mothers, while the rest had two,
257 three or four children. Just over half were Malay; Chinese and Indian women were about
258 equally represented. All participants, except for two women, had at least a degree
259 qualification (Table 1). Around 70 percent of participants were full-time workers; some
260 women worked shift hours or on-call at night (Table 1).

261
262 Based on the participants' perception of breastfeeding, they were framed as 'Passionate',
263 'Ambivalent' and 'Equivalent' women which reflected their infant feeding practices. Firstly,
264 the 'Passionate' women were dedicated working women who did not allow any negative
265 factors to interfere with their intention to maintain breastfeeding. They managed to
266 exclusively breastfeed for six months and continued to breastfeed at the time of interview.
267 Secondly, the 'Equivalent' women believed the infant formula was equally as good as breast
268 milk. They started to introduce infant formula within the first two months postpartum.
269 Thirdly, the 'Ambivalent' women were located between the two extremes: they were able to
270 maintain breastfeeding if their workplaces provided facilities and support, otherwise they
271 introduced infant formula.

272 273 **Breastfeeding experiences among working women**

274 In our quest to understand how working women manage their infant feeding needs, we
275 discovered four themes from the participants' narratives explaining their breastfeeding
276 experience after returning to work. The impact of work on breastfeeding related to these four

277 themes: the nature of the work, human factors, the working environment and personal
278 attributes. While the working environment largely influenced the whole experience, the
279 human factors and personal attributes could be barriers or enablers to women's ability to
280 maintain breastfeeding after returning to work.

282 *The nature of the work*

283 Approximately 3 in ten of the participants worked part-time and the remainder worked full-
284 time. Some participants purposely chose to work part-time because they wanted to have more
285 time for breastfeeding and spending time with their infants. Full-time workers spent at least
286 40 hours per week at work. Some worked regular office hours, others had rotating shifts
287 which at times extended to late at night. However, working full-time was not always a
288 barrier.

290 Faiz, an army officer, had to leave her infant for two weeks to attend training in the field. She
291 managed to express her milk and continue giving her infant breast milk exclusively for six
292 months and then continued until two years. As a 'Passionate' mother, Faiz would always find
293 solutions to obstacles because she strongly believed that nothing could replace breastfeeding
294 or breast milk feeding:

296 I had to go for field training and since I was breastfeeding at that time, I had to
297 bring my entire pump and the gadget. The training was held outside Kuala
298 Lumpur and I had to keep my expressed milk in the freezer at the training
299 centre to ensure I can maintain milk supply. [Faiz]

301 'Ambivalent' mothers found working long inflexible hours a hindrance to maintaining
302 breastfeeding. For example, a woman might need to express during a long meeting.
303 Furthermore, she may feel exhausted by the time she gets home and will not be able to
304 express milk for the next day. Liza, a full-time lecturer at a private university, told us:

306 Sometimes I have to take meeting minutes or make notes. It is just not
307 possible to simply leave the room to express my milk. From my experience I

need at least 30 minutes to do it and there will be nobody who will take the minutes.

‘Passionate’ mothers who worked full-time knew they had followed their milk expressing time schedule diligently to ensure a continuous milk supply. They also realised the importance of self-discipline in maintaining their schedule as Liza explained: ‘Discipline is very important. If you are the type who only pumps when you have the time, definitely you will not have enough [milk] storage.’

Human factors

‘Passionate’ mothers informed their colleagues, they were exclusively breastfeeding their infants and required time to express their milk regularly. Having supportive colleagues was very helpful as narrated below:

So, when I started to go back to work, I made it public to all my colleagues that I fully breastfeed my baby and because of that I have to make time to have regular breaks for milk expression. I would not be joining them for lunch and will use that time to express my milk. [Farha]

Working from home with flexible hours did not always enable successful breastfeeding as in Erin's experience. Erin had two school-aged children as well as the new baby and was running a home-based bakery business. Eventually the double burden of working and mothering made exclusive breastfeeding impossible. Many women reported that their husbands were the main decision-maker in their family:

Partly my husband was blaming that not enough breast milk was the cause of the jaundice. He said to just give the formula. We know the superiority of breast milk, but what can we do when the baby is jaundiced? [Fazli]

Ambivalent mothers usually referred to their husband for infant feeding decisions as explained by Fazli above. ‘Passionate’ mothers were able to convince people of their needs, rather than being convinced by other people as ‘Ambivalent’ mothers were.

340

341 ***Working environment***

342 Women's ability to adapt to new work routines was crucial in managing their day to day
343 schedules. 'Passionate' mothers did not depend solely on the breastfeeding facilities provided
344 by their employer to maintain regular milk expressing during working hours. Jamie, a public
345 health lecturer, would find suitable places to express her milk when she was out in the field.
346 A proper room equipped with a fridge was important to express and store expressed milk for
347 Jenny, an 'Ambivalent' mother: 'I tried to express but when I start to work, I stopped because
348 there is no room to express my milk. We don't even have a fridge here.'

349

350 Our findings showed that 'Passionate' mothers did not depend on the availability of facilities
351 provided at their workplace. We also discovered that flexibility in the workplace was the
352 most important factor. At times, it was more productive for them to just express their milk at
353 their work stations as they were able to multitask. 'Passionate' mothers shared common
354 values that enabled them to persevere in any environment. They were very confident in their
355 abilities and had the knowledge needed to do it effectively.

356

357 On the other hand, 'Equivalent' mothers planned that when they returned to work their
358 infants would receive infant formula. They believed that any type of milk was equally good
359 for their infant and not being able to breastfeed was not regarded as a failure. They never
360 worried about workplace facilities as they did not intend to use them. They showed their love
361 for their infants by buying expensive formula. In between the two extremes, the 'Ambivalent'
362 mothers were greatly affected by the negative influences in their environments and failed to
363 breastfeed their infant as long as they planned to.

364

365 ***Personal attributes***

366 Regardless of the nature of the work or the working environment, what influenced the
367 women's actions and perceptions, was their intention, an important 'gate keeper' in fulfilling
368 their intended behaviour. There was a spectrum of perceptions among working women about
369 breastfeeding or breast milk as a choice of infant feeding and sometimes their choice changed
370 over time in response to their environmental influences.

Nearly all women were aware of the risks of formula feeding, but due to perceived barriers to breastfeeding, the 'Equivalent' mothers discontinued breastfeeding very early and the 'Ambivalent' mothers stopped short of their intended breastfeeding goals. On the other hand, 'Passionate' mothers with their strong intention and determination (control belief) (Ajzen, 2005), maintained breastfeeding in spite of the environmental stressors.

Rohana, a general clerk with four children, said her inner strength enabled her to breastfeed all her children. Thus her feeding was easy and enjoyable: 'The most important is your intention and spirit. If we have clear intention, we will find ways to do it. I have the intention for all my infants that I want to give my milk.'

'Ambivalent' mothers also had the intention to breastfeed their infants, but unlike Passionate mothers, they needed a supportive working environment to continue breastfeeding. When their workloads were overwhelming, they started to give up breastfeeding as experienced by Suzy, a mother of a baby boy aged 10 months:

The problem came when I had to work at the outstation and there was no proper milk storage facilities. I only managed to give my baby expressed breast milk up to six months and after that I had to stop due to frequent outstation travelling. [Suzy]

Some 'Equivalent' women had no strong intention about what to feed their infants. They preferred to let time decide with a 'wait and see' approach to what is suitable later when the baby is born and let the situation determine the choice. Thus, for Teo, an 'Equivalent' mother balancing the needs between work and family was more accommodating and less stressful:

I didn't really plan how I would feed him when I was pregnant; I just kind of decided that I would try to breastfeed as much as possible.

How strong a woman held on to her intention, to some extent determined the duration of breastfeeding. Mothers with strong intention tended to survive in a non-supportive working environment. However, it was not possible to just look at intention in isolation because intention did not stand on its own.

Based on Work Family Conflict framework interaction between womens' perceptions, the enablers and barriers and how their perceptions influenced their feeding choices is tabulated in Table 2. Although many studies have shown that factors such as supports and workplace facilities are important, our study further reveals that it is only important for 'Ambivalent' mothers. 'Passionate' mothers would be able to continue regardless of the support and facilities at their workplace. As explained in the Theory of Planned Behaviour, we found that although, strong beliefs and intention could overrule other factors nevertheless a supportive and positive environment is important for successful breastfeeding for working women especially or 'Ambivalent' women.

DISCUSSION

This study aimed to explore the impact of working status on breastfeeding practices, We found that working status was only a partial barrier to maintain breastfeeding after the women returned to work. The availability of workplace support and facilities were helpful in making return to work more manageable. However the women's breastfeeding intentions, their characteristics and support and challenges they experienced influenced their infant feeding practices.

Coping at work

'Passionate' mothers requested lactation breaks from their employer so they could have sufficient time for effective milk expression. Weber *et al.* (2011) showed that women who were serious about sustaining breastfeeding talked to their employers regarding breastfeeding at work even before they returned to work. A study by Slusser *et al.* (2004) found that on average women need around an hour, in two separate sessions for milk expression during their 8 or 9 hour working day.

Dabritz *et al.* (2009) revealed that less than a third of their participants requested lactation space and facilities at the workplace. In our study, some 'Passionate' mothers requested facilities but if they were denied, they would still continue milk expression using any existing facilities, such as a prayer room. They were similar to the 'good mother' working women described by Payne and Nicholls (2010) in New Zealand. The behaviour of 'Passionate' mothers is driven by a strong intention as suggested by the TPB; strong intention and having

control belief (Ajzen 1991), could be the driving force for the 'Passionate mother' to strive in all situations.

Passionate mothers were more likely to balance their commitment at work and their role as a mother as they had removed the tension in having to compromise on breastfeeding. Some women reduced their working hours or chose to work from home, which was more manageable. Gatrell (2007) described this scenario as a reflection of the 'Passionate' mother's behaviour, whereby proactive female workers would find ways to meet their aims to successfully breastfeed their infants.

Workplace support

Like 'Passionate' mothers, most 'Ambivalent' mothers who worked full-time were separated from their infants while at work. In many cases, their separation created a conflict between breastfeeding and employment because breastfeeding is an activity that demands the women's time away from work (Del Bono & Pronzato 2012). Unlike 'Passionate' mothers, *Ambivalent* mothers relied on the availability of facilities at the workplace to enable milk expressing. A study in the UK by Del Bono and Pronzato (2012) suggested that by providing breastfeeding facilities at the workplace, working women more likely to maintaining breastfeeding until six months postpartum.

Inadequate facilities at the workplace were perceived by 'Ambivalent' mothers as a barrier to maintain breastfeeding. This finding has also been suggested by Weber *et al.* (2011) who studied the perception of organisational support by female employees. A study in East Peninsular Malaysia among employed women regarding facilities for milk expression revealed that they wanted a specific fridge just to keep their expressed milk to avoid contamination if stored in the common fridge (Tengku Ismail *et al.* 2012). 'Ambivalent' mothers felt that the milk expression is impossible without having facilities at the workplace resulting in a higher failure rate to maintain breastfeeding in a non-supportive working environment.

'Ambivalent' mothers were less successful in handling multiple tasks. They felt that keeping their jobs was more crucial in order to avoid financial instability and they could substitute breastfeeding with infant formula. Their experiences suggested that as the intensity of their workload increases, the frequency of breastfeeding decreases (Roe *et al.* 1999) and gradually

Ambivalent mothers had to stop breastfeeding. As suggested by Lindberg (1996), *Ambivalent* mothers illustrate what happens when working women are not able to manage the dual roles of breastfeeding and working.

Practicality counts

Most of the ‘Equivalent’ mothers perceived that infant formula was a practical way to manage their multiple roles. They perceived that preparing infant formula was more manageable than expressing breast milk, therefore they believed that it was appropriate to replace breastfeeding with infant formula. They justified their action as being responsible mothers because they believed what they substituted was best for their infants (Liamputtong & Kitisriworapan 2011). Furthermore, the mothers’ act of giving infant formula was seen as ‘unavoidable’. It was seen as a coping mechanism to deal with their work demand.

Unlike ‘Passionate’ mothers who emphasised the emotional attachment of breastfeeding, ‘Equivalent’ mothers felt that breastfeeding was ‘difficult, unpleasant and disruptive’ as suggested by Schmied and Lupton (2001). These contrasting ways of seeing the practicality of breastfeeding were influenced by their perceptions. They perceived that expressing breast milk at work was not practical and caused too much trouble not only for them but also for their colleagues.

Framing the mothers

According to the Theory of Planned Behaviour (TPB) having the intention to breastfeed (Ajzen 1991) prenatally is not a characteristic of ‘Equivalent’ mothers. Therefore, TPB predicts that the ‘Equivalent’ mothers assess their needs based on the practicality and not on their intention (Ajzen 1991). The Theory of Planned Behaviour relates closely to the ‘Passionate’ mothers. According to the TPB (Ajzen 2005), the current study suggests that ‘Passionate’ mothers’ intention to breastfeed were driven by their positive attitude and strong control belief which had facilitated them in manifesting their intended behaviour as theorised by Ajzen (1991).

Some of the ‘Passionate’ mothers had breastfeeding support from significant people but not having support was not a barrier. For example, if their mothers or colleagues were not supporting them to breastfeed ‘Passionate’ mothers managed to steadfastly give breast milk to their infants. Support or the influence of normative belief was an additional factor that

made their breastfeeding journey easier, but without it they still managed to continue breastfeeding. Because Passionate mothers had a strong control belief, they managed to maintain milk expression regardless of the availability of workplace facilities for milk expression.

Balancing working and family commitments was relatively easy for 'Passionate' mothers who were clear about their priorities regarding breastfeeding. 'Passionate' mothers always prioritised their family and infants rather than their work. Therefore, 'Passionate' mothers were not reluctant to resign or reduce their work commitments if necessary to ensure they could continue breastfeeding. A few women made adjustments by changing to work part-time temporarily, thus avoiding any trigger that may contribute to the development of work-family conflict (Greenhaus & Beutell 1985).

Although previous studies have suggested that the support from significant others was crucial in ensuring breastfeeding success (Persad & Mensinger 2008, Galtry 2003, Sikorski *et al.* 2003), we found this was not always true for 'Passionate' mothers. Our data suggested that ethnicity was not related to women's infant feeding behaviour. Similarly, the studies suggesting that workplace lactation facilities are important in maintaining breastfeeding after returning to work (Mensah 2011) was not always true for 'Passionate' mothers.

Conditional

'Ambivalent' mothers in this study responded to the influence and expectations of other people, demonstrating that their planned behavior to breastfeed was mainly controlled by the normative belief which is how others thought they should behave (Ajzen 1991). When 'Ambivalent' mothers were faced with unsupportive family, they lost their control belief and they compromised on their intention to do what they had planned initially.

'Ambivalent' mothers needed supportive family members including their spouse or partner, their mother or mother-in-law (Galtry 2003, Mangasaryan *et al.* 2012). McInnes *et al.* (2008) in their review of supports for breastfeeding mothers, described how continuous family support was more important than professional help. Stewart-Knox *et al.* (2003) also suggested extended family support plays an important role in women's perceptions about breastfeeding.

‘Ambivalent’ mothers felt that both their family and working commitments were important. They wanted to be able to breastfeed their infants for as long as possible and at the same time they wanted to be able to work full-time. According to the work-family framework, (Greenhaus & Beutell 1985), ‘Ambivalent’ mothers’ conflict occurred when they were not able to balance the roles effectively. They did not want to compromise their work as they had constraints with the financial burden if they quit their job and give attention to the family. They decided to compromise by giving infant formula to their infants keeping their job secure.

What matters most

‘Equivalent’ mothers claimed that infant formula had high nutritional value and therefore was an acceptable alternative for their infants (Ludlow *et al.* 2012). Believing they had ‘milk insufficiency’, Equivalent mothers justified their infant formula choice as the behaviour of a responsible mother. Their justification was important so they should not be blamed for their choice as suggested by Marshall *et al.* (2007). Furthermore, their decision to introduce infant formula was also supported by their spouse.

Fein *et al.* (2008) found that women who did not pump at work breastfed for the shortest duration, as seen in the ‘Equivalent’ mothers in our study. ‘Equivalent’ mothers just focussed on their jobs while at work and at home their helper managed the feeding if they were not around. Interestingly, a study by Mozingo *et al.* (2000) suggested that for women who believed that maintaining employment was more important, quitting their job was never an option for ‘Equivalent’ mothers. In becoming a ‘good worker’, a breastfeeding woman may ‘marginalise’ breastfeeding while at work (Payne & Nicholls 2010). Breastfeeding was indeed an idealist expectation which actually clashed with reality and inadequate assistance and guidance made breastfeeding not the best decision (Mozingo *et al.* 2000) for *Equivalent* mothers.

LIMITATION

Having limited time and unsupported by a research grant were the two main constraints faced in the study. The participants were told no financial incentives would be given to their agreement to participate which helped to reduce the research cost. In contrast, it has helped to reduce the selection bias which may be due to financial gain.

CONCLUSION

Infant feeding choices vary in complex ways in response to individual, environmental and societal factors. Passion and to a lesser extent intention, influenced their choice. Women who experienced a similar working environment may have different infant feeding outcomes in terms of their ability to maintain breastfeeding. Thus, our study revealed that how women planned and organised their multiple roles lead to us defining them into 'Passionate' mothers, who are recognised by their perseverance, 'Equivalent' mothers who preferred practical actions and 'Ambivalent' mothers who were influenced by others in making decisions about infant feeding. In this paper we have shown that the strategies to help women managing their work and infant feeding may differ too. Interventions in the workplace may be useful for most women; however, for those who have decided to formula feed their infants it may not have an impact in creating a mother-friendly environment. Changing or introducing a policy, therefore may be of relevance in influencing some women. In order to implement or create change in the workplace, using various strategies may help to reach a wider spectrum of women who have different ways of how they interpret the circumstances around them.

Author Contributions:

All authors have agreed on the final version and meet at least one of the following criteria (recommended by the ICMJE*):

- 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content.

* <http://www.icmje.org/recommendations/>

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Table 1: Socio-demography data (n=40)

	Mean (SD)	Maximum	Minimum
Maternal age	32 (3.4)	24	38
	Frequency	Percentage	
Ethnicity	23	58	
Malay	8	20	
Chinese	9	22	
Indian			
Number of children			
1	9	48	
2	11	28	
3	4	10	
4	6	14	
Education level			
Secondary	2	5	
Diploma	7	18	
Degree and above	31	76	
Work categories			
Full-time	28	70	
Office hours	18	45	
Odd/ shift hours	10	25	
Part-time	12	30	
Working from home	11	28	

Table 2: Infant feeding preferences and the related factors (n=40)

	<i>Passionate women</i>	<i>Ambivalent women</i>	<i>Equivalent women</i>
Preferences	Exclusive breastfeeding or breast milk feeding for the first six months and then continue for two years	Only breast feed or breast milk feeding for the first six months and may continue for two years	Introduce infant formula within the first two months postpartum
Factors			
Intention	A strong intention to breastfeed	Change intention when faced with obstacles to maintain breastfeeding or breast milk feeding	Has no intention to breastfeed for a specified duration. Feels that infant formula is as good as breast milk
Perseverance	Strong	Conditional	Not relevant
Knowledgeable	Yes and acts according to the facts	Listen to others more than facts	Listen to others more than facts

Risks of not breastfeeding	Knew it well	Knew it	Finds it similar to infant formula
Workplace facilities	Do not rely on the workplace facilities	Rely on the workplace facilities	Not relevant

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