

## Investigating the Support of Exclusive Breastfeeding among Working Mothers in Oman

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### Abstract

**Background:** With enlarged industrialization, more women have joined the workforce. Much evidences have shown that one of the barriers to breastfeeding is the work status of mothers. **Aim:** This study aimed to examine the support of exclusive breastfeeding among working mothers within their workplaces in Oman. **Methods:** This study used a cross-sectional survey. It involved working mothers who were in full-time work. The age of the women was ranged from 23-49 years. Purposive sampling was used and the sample size was 148 women. The questionnaire from the

Employee Perceptions of Breastfeeding Support was used to collect data after validation by two experts. The Cronbach's alpha of this scale's (internal consistency) was 0.840. **Results:** Breastfeeding support within workplaces for lactating mothers was very limited. There was no clear legislation or policy and lactation rooms available at mothers' workplaces. The data showed that availability of time for breastfeeding was a problem and it received the highest score (Mean=3.35±.445), followed by average scores for manager's support (Mean=3.04±.319) and organizational support

(Mean=2.91±.202). However, Co-worker's support (Mean=2.42±.393) received the lowest score. **Conclusion:** This study would be helpful for the ministries in Oman to support working mothers who wanted to exclusively breastfeed their infants. Also, the working places would guarantee that their institutions would be free of harassment against working mothers who would like to breastfeed their infants exclusively by using appropriate mechanisms. The head of work at different working sectors must provide a breastfeeding room with expressing facilities at the workplaces to be used by working mothers and these services have to be private, clean, and comfortable for working mothers. The breastfeeding room should also include hand washing and milk storage services.

**Keywords:** Exclusive breastfeeding, working mothers and support.

#### \* Introduction

According to World Health Organization (WHO), Exclusive Breastfeeding (EBF) means that infants should receive only breast milk (WHO, 2003). No other liquids or solids are given, not even water, except for oral rehydration solutions, drops, syrups of vitamins, minerals, or

medicines if advised by a doctor (WHO, 2003). Thereafter, infants should receive complementary foods while continuing to breastfeed for up to two years or more (WHO, 2003). Over the last two decades, there has been an increasing consideration in the approval of EBF as the recommended baby feeding practice. There is a great proof of the importance of EBF in reducing morbidity and mortality rate among infants (Eidelman et al., 2012; WHO, 2018). Of the 6.9 million children under five years who were reported dead in 2015, an expected 1 million children could have lived by EBF (Marinelli et al., 2019). WHO recommends that infants should be exclusively breastfed for the first six months to achieve optimal physical and intellectual growth and development (WHO, 2003). Therefore, healthcare professionals should encourage and support all women to breastfeed. The presence of breastfeeding policies like Baby-Friendly Hospital Initiative (BFHI) within healthcare institutions, healthcare professionals training in breastfeeding counseling, supporting mothers during breastfeeding, educating mothers and healthcare professionals about the importance of

breastfeeding and rooming-in have been shown to positively affect breastfeeding promotion (Handajani et al., 2018; Silva et al, 2019).

With enlarged industrialization, more women have joined the workforce. Much evidences have shown that one of the barriers to breastfeeding is the work status of working mothers (Vilar-Compte et al., 2021; Dutheil et al., 2021; Chai et al., 2018; Grant et al., 2018). 50% of women employed in the workplace are of reproductive age and return to work within less than one year after childbirth (Vilar-Compte et al., 2021). A systematic review revealed that there is a negative relationship between employment-related factors and breastfeeding initiation and duration (Dutheil et al., 2021). This review also showed that employment is responsible for low rates of breastfeeding initiation and duration (Dutheil et al., 2021). In addition, another study showed that the shorter the duration of maternity leave is related to a shorter duration of breastfeeding (Chai et al., 2018; Grant et al., 2018). In Oman, the rate of EBF is low, especially among working mothers (Tang et al., 2019). To the knowledge of the researcher, there are very limited studies investigating the

support by workplace for EBF among working women in Oman. Therefore, it is important to investigate this phenomenon in an attempt to give the infants a chance for optimal health. It is important that breastfeeding be promoted and supported by the workplaces, which will allow working mothers to continue breastfeeding.

#### **\* Aim of the Study**

To examine the support of EBF among working mothers within their workplaces in North Batinah Governorate in Oman.

#### **\* Research Question**

What is the support the working mothers received regarding EBF within their workplaces?

#### **\* Research Hypothesis**

There is an association between breastfeeding cessation and the employment status.

#### **\* Method**

#### **\* Study Design and Setting**

This study used non-experimental, descriptive quantitative, cross-sectional design, with data collection at a single point in time. The study had been conducted in North Batinah Governorate in Oman. The target group was full time working women at different governmental institutions.

### **\* Study Population**

The population involved full time working mothers at governmental institutions in North Batinah Governorate in Oman, aged between 23-49 years. Also, the population involved women who had a baby between 6-12 months with EBF experience.

### **\* Sampling Technique and Sample Size**

Purposive sampling used to select participants who had the characteristics of the population of interest so that the results can be generalized. According to National Center for Statistics and Information 2020, in North Batinah Governorate, the total number of working women is 36,000. The sample size of working women is expected to be about 395. However, not all working women had breastfeeding experience, so half of the sample considered breastfeeding women (n=197). Out of the 197 total questionnaires distributed among the working women at different governmental institutions, 148 working women completed the questionnaire (75%) and 49 working women were not interested to participate in the study (25%).

### **\* Research Instrument**

The researcher adapted a questionnaire from the Employee Perceptions of Breastfeeding Support Questionnaire (Greene et al., 2008) and obtained permission to utilize it. The validity of the tool was checked by two experts from the Ministry of Health. The Cronbach's alpha of this scale (internal consistency) was 0.840. This Questionnaire contains 37 items that require either categorical yes/no or Likert scale responses. Survey items are grouped together to evaluate five aspects of the work climate: organization support (11 items), manager support (10 items), co-worker support (5 items), time available for breastfeeding (2 items), and physical environment (9 items). Demographic data was also collected using four questions about marital status, age range, level of education and work site location.

### **\* Data Collection**

Data collection started August–December 2022 with different governmental institutions. Permission obtained before data collection from the head of the selected institutions. The researcher then distributed the participants' information sheet to the potential participants. A week after distributing of participants information

sheet, the researcher distributed the questionnaire to all interested women within the institutions.

#### **\* Data Analysis**

Collected data were coded by numbers and tested statistically to draw the conclusion. The data entered to in Microsoft Excel then transfer to statistical page for social science (SPSS) program version 20.0 for analysis. Descriptive statistics such as frequency, percentage, mean and median were calculated for the demographic data and variables. Also, the inferential statistical test such as ANOVA was used to determine if the hypotheses was to be accepted.

#### **\* Ethical Considerations**

The ethical approval for this study obtained from the Research and Ethical Review and Approval Committee (RERAC) of the Ministry of Health (RERAC 14/2022). Also, from the National Centre for Statistics and Information in Oman (No. 224215833). The study was explained in detailed for the women with insurance of confidentiality and voluntary participation and ability to withdraw at any time without any consequences. Women who agreed to take part signed an informed consent. All data kept in password protected PC

with appropriate coding. Aggregate data was used for publication.

#### **\* Results**

##### **\* Participant Characteristics**

The demographic data of the participants presented in Table 1. Of the 148 working women, the majority of women (n=35, 24%) were between the age 23-29 years. 39% of women (n=58) were between the ages of 30-39 years, 55 working women 37% were above 40 years, Mean age (35.15). 135 working women were married (91%), 2 (1%) were divorced and 11(8%) were widowed. 48 women had Bachelor degree (33%), 47 handled Diploma degree (32%), 27 women got General Diploma (18%), 21 women had Master degree (14%) and 5 women had PhD degree (3%). From 148 working women, majority were from the health sector (n=43, 29%), followed by the education sector (n=29, 19%), 10 were working in defense sector (7%), 13 were working in telecommunication sector (9%) and 22 women (15%) were working in banking sector. Also, 31 women (21%) were included from other governmental sectors such as housing, trading and tourism sectors.

**Table 1: Demographic Data of the Sample  
(n=148)**

Variables	Level	Number	%
Age	23-29 years	35	24%
	30-39 years	58	39%
	above 40 years	55	37%
Marital Status	Married	135	91%
	Widow	11	8%
	Divorce	2	1%
Education Level	General Diploma	27	18%
	Diploma	47	32%
	Bachelor	48	33%
	Master	21	14%
	PhD	5	3%
Occupation Status	Education Sector	29	19%
	Health Sector	43	29%
	Banking Sector	22	15%
	Telecom Sector	13	9%
	Defense Sector	10	7%
	Other Sector	31	21%

The data are shown in four sections: organization support, manager support, co-worker support, and time.

#### \* Organizational Support

Working mothers' views for breastfeeding support at their workplaces were negative. 148 (100%) were disagreed that they had enough maternal leave. 133 of women (89.9%) stated that they did not have information about combining work and breastfeeding from their workplaces. However, only 49 (31.1%) of women were certain that their workplaces have written policies about breastfeeding. In addition, 148 (100%) of women were disagreed about the availability of place to breastfeed or pump breast milk at work. Also, 118 (79.7%) of women reflected that there is no one they could go to at work that would help them make arrangements for breastfeeding

or pumping breast milk. 78 women (52.7%) reported that their job could be at risk if they breastfed or pumped breast milk at work. 86 (58.1%) of women also reflected that their opportunities for job advancement would be limited if they breastfed or pumped breast milk at work. Only 68 (45.9%) of women were not able to talk about breastfeeding at work and 112 (75.7%) felt uncomfortable asking help with breastfeeding or pumping breast milk. Also, 147 (99.3%) were uncertain about if women in higher-level positions or their coworkers have breastfed or pumped breast milk at their workplace.

#### \* Managers' Support

The findings of this section reflected that there is lack of managers' support at work regarding breastfeeding. Only 15 of mothers (10%) agreed that their managers were supportive for breastfeeding at work while the majority of mothers were disagreed 133 (89.9%). 137 (92.6%) of women felt uncomfortable speaking with their managers about breastfeeding and reported that their managers did not say things that made them think that they support breastfeeding. However, 8 women (5.4%) agreed that their managers

would view breastfeeding as an employee's personal choice. In addition, 148 (100%) women stated their managers would not consider breastfeeding as a part of their job to help them combine breastfeeding and work. 143 (96.6%) of women disagreed that their managers would change their work schedule to allow them time for breastfeeding or pumping. 54% of working women disagreed that their managers would help them deal with their workload so they could breastfeed or pump breast milk at work. 148 (100%) of women mentioned that their managers would be embarrassed if they spoke with them about breastfeeding.

#### **\* Co-workers' Support**

Co-worker support was varied. 135 (91.2%) of women felt comfortable talking about breastfeeding with their coworkers at work. 87 (58.8%) of mothers stated that their co-workers said things that made them think they support breastfeeding. However, 94 (63.5%) of mothers' co-workers would not change their break times with them so that they could breastfeed or pump breast milk. Also 86 (58.1%) identified that their co-workers would not cover their job duties if they needed time for

breastfeeding or pumping breast milk. 77 (52%) of women agreed that their co-workers would be embarrassed if they spoke with them about breastfeeding at workplaces.

#### **\* Availability of Time**

According to all women 148 (100%), available time during the work to breastfeed or pump breast milk was overwhelmingly negative. The time and frequency of breaks for breastfeeding or pumping were perceived as being insufficient by all women. 148 (100%) could not adjust their break schedule to breastfeed or pump breast milk.

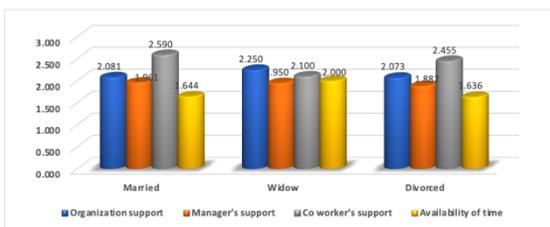
Support within governmental institutions was measured in a Likert scale with 4 scores (Strongly disagree to strongly agree). The scale showed that availability of time for breastfeeding or pumping at work received the highest score of disagreement (Mean=3.35± .445), followed by average scores for manager's support (Mean=3.04± .319) and organizational support (Mean=2.91± .202). However, Co-worker's support (Mean=2.42± .393) received the lowest score of disagreement as shown in Table 2.

**Table 2: Domain Wise Mean, SD and Median.**

	Mean	Std. Deviation	Median
<b>Organization Support</b>	2.0831	.20250	2.1
<b>Manager's Support</b>	1.9547	.31951	2
<b>Co-Worker's Support</b>	2.5730	.39359	2.6
<b>Availability of Time</b>	1.6486	.44592	2

The analysis using ANOVA showed that organization support, manager's support, co-workers support and availability of time for working mothers within governmental institutions did not vary significantly based on the marital status. Marital status of the working mothers did not influence the organization support, manager's support, co-workers support and availability of time on breastfeeding as shown in Figure 1.

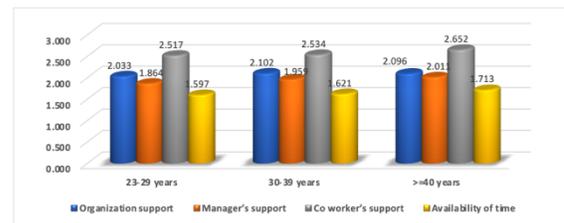
**Figure 1: Domain Wise Mean of Organization, Manager's, Co-Worker's Support and Availability of Time Based on Marital Status.**



Also, ANOVA showed that organization support, manager's support, co-workers support and availability of time did not vary significantly based on the age. Age of

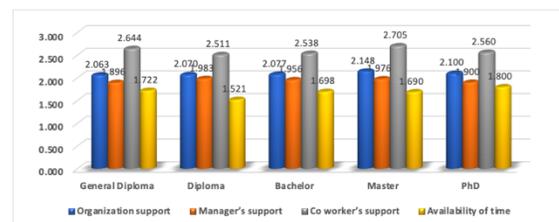
the working women did not influence the organization support, manager's support, co-workers support and availability of time on breastfeeding as shown in Figure 2.

**Figure 2: Domain Wise Mean of Organization, Manager's, Co-Worker's Support and Availability of Time Based on Age.**



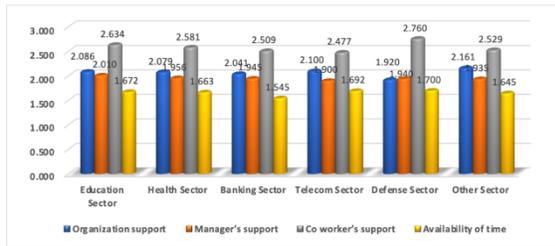
Using ANOVA showed that organization support, manager's support, co-workers support and availability of time did not vary significantly based on the education. That's mean educational qualification of the working mothers did not influence the organization support, manager's support, co-workers support and availability of time on breast feeding as shown in Figure 3.

**Figure 3: Domain Wise Mean of Organization, Manager's, Co-Worker's Support and Availability of Time Based on Education.**



ANOVA analysis also showed that manager's support, co-workers support and availability of time did not vary significantly based on the occupation. Occupation of the working mothers did not influence the manager's support, co-workers support and availability of time on breastfeeding as shown in Figure 4.

**Figure 4: Domain Wise Mean of Organization, Manager's, Co-Worker's Support and Availability of Time Based on Occupation.**



The data showed that occupation of the mothers significantly influences organization support because  $p < 0.05$  in organization support. The multiple comparison of organization support based on occupation of mothers showed organization support is significantly high in mothers who works at defense than others ( $p < 0.05$ ) as shown in Table 3.

**Table 3: Multiple Comparison of Organization Support Based on Occupation.**

(I) Occupation (J)	Mean Difference (I-J)	Std. Error	Sig. P-value	95% Confidence Interval	
				Lower Bound	Upper Bound
Education Health	-.00714	.04741	1.000	-.1487	.1344
Education Banking	-.04530	.05579	1.000	-.2119	.1213
Education Telecom	.01379	.06586	1.000	-.1828	.2104
Education Defense	-.16621	.07236	.346	-.3822	.0498
Education Others	.07508	.05097	1.000	-.0771	.2273
Health Banking	-.03816	.05172	1.000	-.1926	.1163
Health Telecom	.02093	.06245	1.000	-.1655	.2074
Health Defense	-.15907	.06927	.347	-.3659	.0478
Health Others	.08222	.04649	1.000	-.0566	.2210
Banking Telecom	.05909	.06902	1.000	-.1470	.2652
Banking Defense	-.12091	.07525	1.000	-.3456	.1038
Banking Others	.12038	.05500	.454	-.0438	.2846
Telecom Defense	-.18000	.08299	.476	-.4278	.0678
Telecom Others	.06129	.06520	1.000	-.1334	.2559
Defense Others	.24129*	.07176	0.015*	.0270	.4555

**\* Physical Environment**

None of the women answered questions related the physical environment at workplace for breastfeeding or pumping breast milk after returning to work due to unavailability of this service at their workplaces.

**\* Discussion**

The aim of this study was to examine the support of EBF among working mothers within their workplaces in Oman. To the best of the researcher's knowledge, this study is the first quantitative study conducted in Oman, focusing exclusively on investigating workplaces' support for breastfeeding using purposive and random sample from different governmental institutions. This study revealed that working mothers did not receive supportive environment at workplaces for EBF. The main concern

of the working mothers was that the maternal leave was not enough for them to continue breastfeeding. According to Royal Decree No. 35/2003, which relates to labour law in Oman, under article 83, working women are allowed to receive fifty days of maternity leave with full payment. Maternal leave is allowed five times during work life. If working women give birth after their fifth baby, they will not be provided with paid maternity leave. Labour law also permits working women to receive a full year of childcare leave, albeit without payment, if they request it. This is, of course, an issue among Omani working women. A study indicated that the rate of exclusive breastfeeding among children under 6 months was 9 % higher in countries that guaranteed paid breastfeeding leaves at workplace (Allen et al., 2014). However, the findings of this study are not consistent with the findings in those countries. There can be many reasons for this: availability of breastfeeding policies at workplaces, breastfeeding programs and support provided to working mothers through health awareness and resources availability for breastfeeding (Allen et al., 2014; Bai et al., 2015).

Breastfeeding legislation, law or policy at workplaces was not available. The importance of breastfeeding law at workplaces to continue breastfeeding has been shown in many studies (Dodgson et al., 2004; Hassan & Musa, 2014). A study in Hong Kong mentioned the important of breastfeeding law for working mothers to breastfeed even if the employer is not supporting breastfeeding because this law protects the right of working mothers to breastfeed at workplaces (Dodgson et al., 2004). Adhering to the needs of working mothers is accomplished when workplaces' infrastructure is present with a clear law for breastfeeding (Hassan & Musa, 2014). This policy should include the awareness and training programs for the employers on the value of investment on breastfeeding services. Also, in the light of this study findings, the policy could involve the religious obligation for better adherence of breastfeeding policy. According to many studies, a lack of breastfeeding policy and lactation programs limits breastfeeding support within any institutions (Allen et al., 2014; Bai et al., 2015). The data also showed that breastfeeding room was not available for working mothers within

workplaces which reflects lack of breastfeeding support. Many studies have reported that a breastfeeding room for maintaining privacy during breastfeeding or expression of breast milk plays an important role in promoting breastfeeding practices (Waller, 2007; Mills, 2009). A qualitative study conducted in Pakistan indicated that availability of breastfeeding room, can affect working mothers' decision to continue breastfeeding (Hirani & Karmaliani, 2013).

Several studies indicate that managers who provide support to working mothers, on their return from maternity leave, can enhance breastfeeding (Otim et al., 2022; Soomro et al., 2016). For example, providing information about access to facilities to express and store breastmilk, flexible working hours and information regarding other possible options such as return part time, extended maternity leaves, all can enhance breastfeeding (Otim et al., 2022; Soomro et al., 2016). In this study, only 10% agreed that their managers were supportive for breastfeeding at work while the majority were disagreed (89.9%). 100% women stated their managers

would not consider breastfeeding as a part of their job to help them combine breastfeeding and work. 96.6% of women disagreed that their managers would change their work schedule to allow them time for breastfeeding or pumping. Therefore, lack of breastfeeding support within workplaces affects women decision to continue breastfeeding (Hirani & Karmaliani, 2013). The findings of this study will enable policy makers in Oman to be informed about the status of the existing breastfeeding support provided by workplaces to working mothers.

#### **\* Conclusion**

Breastfeeding support within workplaces for lactating mothers is very limited in Oman. There is no clear policy and lactation rooms available for breastfeeding at mothers' workplaces. This reflects the need to develop breastfeeding room within the governmental institutions and to develop appropriate policy regarding breastfeeding at work. These could help women to continue breastfeeding. This study would help the governmental organizations at Oman to support working mothers who wanted to exclusively breastfeed. Also, would guarantee that the workplaces

would be free of harassment against working mothers who would like to breastfeed exclusively by using appropriate mechanisms. The managers at different working sectors must provide expressing facilities to be used by working mothers and these facilities have to be clean, comfortable and private for these mothers. Working places should also include hand washing and milk storage services.

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