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LITERATURE REVIEW

Child rearing workplace policy for working mothers: a scoping review

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Abstract

Introduction: Straddling work and childcare harms working moms' health, potentially their children too. To address this, child rearing workplace policies are needed. These would promote work-life balance and ensure both mothers' and children's well-being, ultimately protecting pregnant and parenting women at work.

Objective: This study aims to explore the gaps between available child rearing workplace policy for working mothers and the implementation on the field while taking its implications into account.

Methods: We reviewed literature from PubMed electronic database. Predefined keywords were developed and chosen. Relevant articles were filtered according to the inclusion and exclusion criteria. Furthermore, all articles were reviewed independently and those that match were included and charted through Microsoft Excel based on each articles' characteristics.

Results: There are 13 workplace policies related to childcare for working mothers in the included articles. The most common policy was paid maternity leave. Other frequently mentioned policies included lactation support and facilities, flexible work arrangements, and daycare facilities. All policies have different implementation rates and implications to both working mothers and their children.

Conclusion: Supportive child rearing policies at work benefit everyone: employers, employees, and their families, leading to a better nutritional and health status, hence increase overall quality of life.

Keywords: workplace policy, working mothers, childcare, maternal employment

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Introduction

Globally, women workers shoulder more childcare responsibilities than men due to persistent gender norms across all countries. Women all around the world were subjected to triple roles: domestic worker, income earner outside household chores, and caregivers for family members.[1] Health problems among the female labour arise from the inability to juggle between the roles of nurturing

and working, therefore jeopardising the nutritional and health status of the working mom and their child. Mothers who were working and not protected by policy in their workplace could face "pregnancy discrimination" which defined as disadvantageous treatment of women in the workplace due to pregnancy, childbirth, and requestion or taking childcare/ family care/ other family related leave. Pregnancy discrimination could lead to maternal postpartum depression, impaired mother-child bonding, infant death, and hospitalisation during the first year of the child's life. Moreover, children of working mothers have been reported to have nearly twice the odds of being stunted than children of non-working mothers.[2] A systematic review reported that informal employment of mothers had a negative effect and significantly associated with higher risks of being underweight and stunting.[3] Another study in the U.S. revealed that approximately 74% of U.S. mothers work full-time where employment was identified as one of the reasons working mothers had to stop breastfeeding. [4]

Due to the importance of work and family life balance, health and safety of mother and children, also in the course of the attempt to protect women in workplaces who are pregnant and/or child rearing, United Nations with all representatives of every country adopted The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) in 1979. Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) is an international treaty that focuses on comprehensive guarantees regarding women's right to equality in all spheres of life, including the reproductive rights of women in employment places. It has been a tool to tackle discrimination at workplaces. [5] International Labor Organization or ILO also declared an international Maternity Protection Convention No. 183 year 2000. This convention is a set of recommendations to support women and their children through health protection, paid maternity leave (prepartum and postpartum), benefits (e.g., cash benefits, medical benefits, etc.), employment protection and non-discrimination (the right to return to the same position or equivalent at the end of the maternity leave), and daily reduction of working hours (to breastfeed her child) or nursing breaks.[6]

United Nations International Children's Emergency Fund (UNICEF) also developed a set of policies known as family-friendly policies (FFP) to address the significance of achieving a balance between work and family life. The aim of FFP is to assist employees in managing the responsibilities of raising children from pregnancy to the early school years. Family-friendly policies recognizes the essential needs of parents and caregivers of young children, encompassing time, resources, and services. By actively investing in this critical phase of early childhood, families, businesses, and the government contribute to the overall success of children in education, the productivity of adults in the workforce, the potential for families to escape poverty, and the attainment of lifelong well-being.[7]

As demands for female workers' keeps adding up over the years, the consequences to this phenomenon, especially to their health and nutrition, cannot be ignored. Female workers spend most of their day in their workplace and it is important to see this as an opportunity for health and nutrition promotion. The prevalence of workplace wellness programs is on the rise due to a growing recognition among employers of the advantages they offer, including enhanced productivity and reduced healthcare expenses. Family oriented and maternal policies are also proven to have an impact at the organisational/ institutional level where it can help retain talent and effectively improve organizational performance.[8,9]

The aim of this scoping review was to explore the gaps between available child rearing workplace policy for working mothers and the implementation on the field while taking its implications for both the working mothers and children into account. Deciphering what drives or impedes policy all around the world could unveil crucial steps toward a supportive workplace for mothers who handled both work and motherhood. Identifying factors that boost or block policy realisation can pave the way for actionable strategies to optimize workplace policy related to child rearing toward better health and welfare for both working mothers and their children.

Methods

This scoping review adapted the method from Ziolkowski et al.,10 We modified the protocol, which was originally used to conduct a nationwide breastfeeding policy scoping review. The stages taken in this study are: (1) identify research questions, (2) identify the policies (3) study selection (4) charting the data, and lastly (5) combining, summarising, and reporting data.

1. **Research Question**
   Based on our analysis of the available data, key questions emerged concerning workplace policy and its impact for complementary feeding practices among working mothers:
   1. What is the workplace policy for working mothers that supports their children's health and welfare?
   2. How is the implementation of workplace policy in supporting working mothers to fulfil their children's health and welfare?
   3. What are the implications of child rearing workplace policy for the mothers and their children?
2. **Search Strategy**
   PubMed was chosen as the database of search due to its high numbers of indexed journals, ease of access, and available quality assessment to ensure the excellence of articles contained in the database.[11] The search function "AND" was used to identify articles with the predefined keywords, which are: policy, working mother, child health. Variations for the keyword were combined with the "OR" operation to maximize results which are: policies and regulations. This review only considered articles in English and was published in the last 10 years between December 2013 – January 2024.
3. **Inclusion and Exclusion Criteria**
   Inclusion criteria that were implemented for the search were: studies related to any scope of public policy (international, national, or regional) and any level of occupations (skilled, semi-skilled, or basic-skilled) in any country using any type of methodology. This review included implementation and/or implication of policies, regulations, guidelines, or recommendations applicable in workplace settings.

   Whereas the exclusion criteria of this review consisted of: COVID-19 or pandemic regulations, non-working mothers or fathers as respondents, self-employed respondents, articles with non-English language, unavailable abstract and manuscripts, and publications before 2013 or after January 2024.
4. **Data Selection**
   All articles were reviewed independently through electronic databases. Final articles that match the inclusion and exclusion criteria of this study were included and charted through Microsoft Excel. Each article's characteristics, such as: aims of the study, type of policy, methodology, and location were sorted by reviewer.

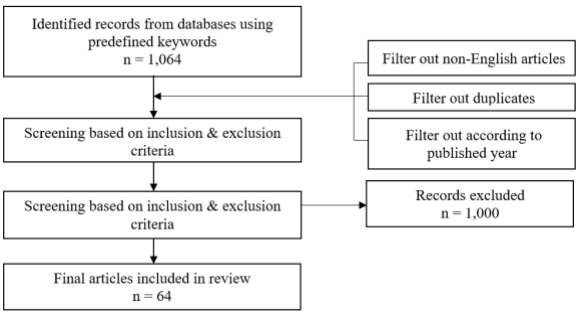

Figure 1. Flowchart of data selection process

The flowchart (**Figure 1**) depicts the process of data selection graphically. As shown in the flowchart, a rigorous multi-stage assessment was carried out. A sum of 1,064 emerged from PubMed using the predefined keyword. Further screening was conducted and we found several articles were irrelevant, not in English language, respondents were non-working mothers, published outside the 2013–2024-year range, also articles with unavailable abstract and manuscript. Further filtering based on the inclusion and exclusion criteria led us to exclude 1,000 articles. Therefore, there were 64 articles focused on workplace policy, working mother, and/or its implications for the mother and their children. We scrutinized titles, abstracts, and full texts against predefined inclusion-exclusion criteria to meticulously select

relevant articles for the review. Through this multifaceted approach, we conducted a thorough assessment of all articles, thereby securing the inclusion of solely pertinent studies within the review.

Results and Discussions

1. Child Rearing Workplace Policy for Mothers

There were 32 countries or regions that focused on the topic and two unspecified locations of study due to its research nature (worldwide-based review). Several articles did its research on more than one country, namely: one article addressed Brazil & Ghana, one article addressed India & South Africa, one article included UN member countries and one article included all staff of WHO in the Western Pacific Region. Most of the articles explored the USA as their location of research with 22 articles, followed by Kenya with three articles. Europe, Indonesia, South Korea, Thailand, and the UK had two articles addressing this topic. While the rest of these following countries or regions had one article: Bangladesh, Bhutan, Cambodia, China, East Africa, Ecuador, Egypt, Ethiopia, France, Germany, Ghana, Guatemala, India, Jerusalem, Mexico, Oman, Pakistan, South Africa, Sri Lanka, Sweden, and Taiwan. Location of the studies indicated the said countries or regions have had come to attention regarding the importance of child rearing workplace policy for mothers, despite its availability and factual implementations in the said countries or regions.

Table 1. Publications included in analysis

Policy: 1) Paid maternity leave 2) Childcare subsidy 3) Breast-pumping breaks 4) Breast-pumping facilities 5) Breast-pumping education & support 6) Flexible working arrangements 7) Paid sick/ medical leave 8) Daycare facility 9) IYCF practices & support 10) Bringing children to workplace 11) Paid childbearing leave 12) Unpaid leave 13) Paid parental leave (mother and father)

No	Authors	Year	Location	Study Aims	Methodology	Policy
1	Guendelman et al[12]	2013	USA	Relationship between access to employer-offered maternity leave (EOML) (both paid and unpaid) and uptake and duration of maternity leave following childbirth in a socio-economically diverse sample of full-time working women	Case control	1
2	Sheperd-Banigan & Bell[13]	2014	USA	Examine the associations between socio-demographic factors and employment leave variables (paid maternity, sick and personal leave)	Cross-sectional	1
3	Herbst & Tekin[14]	2014	USA	Examining the impact of childcare subsidy receipt on maternal health and the quality of child–parent interactions	Cross-sectional	2
4	Tsai[15]	2014	Taiwan	Explore the impact of employee's perceived breastfeeding support from the workplace and the benefits of breastfeeding on a woman's intention to use breast-pumping breaks after returning to work	Cross-sectional	3, 5
5	Smith-Gagen et al[16]	2014	USA	Relationship between breastfeeding initiation and duration with laws supportive of breastfeeding enacted at the state level.	Cross-sectional	3, 4
6	Aikawa et al[17]	2015	Thailand	Association between mothers' work-related factors and breastfeeding practices	Cross-sectional	1
7	Bai et al[18]	2015	USA	Examine the nature and extent of accommodations offered to breastfeeding employees among New Jersey employers since the US federal Reasonable Break Time for Nursing Mothers law enactment.	Cross-sectional	3, 4, 5

No	Authors	Year	Location	Study Aims	Methodology	Policy
8	Atabay et al[19]	2015	UN member countries	Assess the trends in the share of countries guaranteeing breastfeeding breaks in the workplace and paid maternal leave that lasts until the infant is 6 months old	Cross-sectional	1, 3
9	Iellamo et al[20]	2015	WHO, Western Pacific Region	Determine the extent to which World Health Organization (WHO) policies protect, promote, and support breastfeeding women working at the WHO, Western Pacific Region	Cross-sectional	4
10	Kumar et al[21]	2015	India	Working women in India constitute a dominant and expanding pool of mothers. There is paucity of research focused on feeding behavior within this group.	Cross-sectional	1, 5
11	Avendano et al[22]	2015	Europe	Examines whether maternity leave policies influence women's mental health in older age	Cross-sectional	1
12	Shepherd-Banigan et al[23]	2016	USA	Examines the impact of workplace attributes on changes in depressive symptoms among working women with young children between 6 and 24 months of age	Cross-sectional	6
13	Andres et al[24]	2016	USA	The relationship between maternity leave and health outcomes has not been formally and comprehensively assessed to guide public health research and policy in this area. This review aims to address this gap by investigating both the correlates of maternity leave utilization in the us and the related health benefits for mother and child	Systematic Narrative Review	1
14	Majee et al[25]	2016	USA	Examine workplace barriers and facilitators to breastfeeding in a small rural American community following the passage of the Affordable Care Act in 2010	Qualitative: IDI	3, 4, 5
15	Zoritch et al[26]	2016	USA	To quantify the effects of out-of-home day-care for preschool children on educational, health and welfare outcomes for children and their families	Review	8
16	Shepherd-Banigan et al[27]	2017	USA	Examines whether paid sick leave and hours worked per week are associated with receipt of recommended well-child visits, preventive dental care, influenza vaccines, obesity screening, and vision screening among U.S. children aged 0 to 17 years whose mothers were employed using data from the Medical Expenditure Panel Survey	Cross-sectional	7
17	Rasheed et al[28]	2017	Bangladesh	To assess the support for IYCF in the national policy environment through policy analysis and stakeholder analysis and in so doing identify opportunities to strengthen the policy environment	Qualitative study	9
18	Kavle et al[29]	2017	Unspecified	To determine barriers to exclusive breast-feeding in twenty-five low- and middle-income countries and discuss implications for programs	Systematic review	1, 3
19	Oddo et al[30]	2018	Guatemala	Explore the pathways by which maternal employment might influence bodyweight in children	Qualitative	6
20	Jou et al[31]	2018	USA	To predict the likelihood of outcomes related to infant health, maternal physical and mental health, and maternal health behaviors by the use and duration of paid maternity leave	Cross-sectional	1

No	Authors	Year	Location	Study Aims	Methodology	Policy
21	Avendano & Panico[32]	2018	UK	Examined whether a policy that grants parents the right to request flexible work influences their health and well-being	Cohort	6
22	Wainaina et al[33]	2018	Kenya	Explores the experiences of middle-income women to understand their attitudes and practices of EBF and to contribute toward the Baby Friendly Hospital (BFHI) and Baby Friendly Community Initiatives (BFCI) programs in Kenya	Qualitative	1, 3, 4, 6
23	Tshering et al[34]	2018	Bhutan	To examine the prevalence of exclusive breastfeeding and its associated factors	Cross-sectional	1
24	Zhang et al[35]	2018	China	To explore mothers' breastfeeding experience throughout the breastfeeding period and to understand their challenges and support service needs at each stage	Qualitative	1, 3, 4, 5
25	Basrowi et al[36]	2018	Indonesia	To achieve expert consensus on developing a workplace-based lactation promotion model	Delphi method	1, 3, 4, 5
26	Li et al[37]	2018	Germany	To examine the impact of maternal and paternal work hours on overweight/obesity among children aged 1–6 years in Germany using longitudinal data.	Longitudinal study	6
27	Riaz & Condon[38]	2019	Pakistan	To describe the attitudes and experiences of breastfeeding mothers returning to full-time work as nurses in a tertiary hospital in Pakistan.	Qualitative	1, 3, 4, 6, 8, 10
28	Abou-ElWafa & El-Gilany[39]	2019	Egypt	To describe EBF rate using the 24-hour recall method and factors influencing breastfeeding practices among working women	Cross-sectional	1, 3, 4, 5
29	Morain et al[40]	2019	USA	To describe policies related to parental leave, breastfeeding, and childcare for faculty and staff at top schools of public health in the United States	Cross-sectional	1, 7, 8, 11, 12, 14
30	Stack et al[41]	2019	USA	To characterize determinants of resident maternity, leave and the effect of length of leave on maternal well-being	Cross-sectional	1, 7
31	Jameel et al[42]	2019	Cambodia	Investigated the health-seeking behaviors for maternal and infant care of female garment factory workers in Kampong Tralach district, Cambodia	Qualitative Study	1, 4, 7, 8
32	Widiastuti et al[43]	2019	Indonesia	To look at the relationship between exclusive breastfeeding practices and frequency of sick children and the productivity of health-care provider mothers	Cross-sectional	1, 11
33	Clark et al[44]	2019	Kenya	Demonstrates that limited access to affordable early childcare inhibits poor urban women's participation in paid work	RCT	2
34	Szczesna et al[45]	2019	Europe	To analyse the risks and consequences of working in the operating theatre during pregnancy	Literature review	6
35	Slopen[46]	2020	USA	Explores the links of employment and demographic characteristics on leave type and lengths of overall, paid, and unpaid leave in a large city in the United States	Cross-sectional	1, 12
36	Niel et al[47]	2020	USA	Reviewed recent studies on the possible effects of paid maternity leave on the mental and physical health of mothers and children	Literature review	1
37	Doran et al[48]	2020	USA	To study the effect of California's first in the nation paid family leave policy on maternal postpartum psychological distress for women overall and for disadvantaged groups	Cross-sectional	1, 11

No	Authors	Year	Location	Study Aims	Methodology	Policy
38	Horwood et al[49]	2020	India & South Africa	To explore attitudes and perceptions towards breastfeeding in the informal work environment among male and female informal workers	Qualitative	4, 6, 12
39	Luthuli et al[8]	2020	South Africa	This study explored how mothers navigate the tension between the need to work and the need to take care of a newborn baby, and how this affects their feeding plans and practices	Mixed-method longitudinal cohort	1, 5, 6, 11
40	Elsey et al[50]	2020	Bangladesh	To understand perceptions of, and demand for, center-based child-care in Dhaka, Bangladesh among poor, urban households, and test the feasibility of delivering sustainable center-based child-care	Mixed methods	8
41	Schafer et al[4]	2021	USA	Explore the themes of comfort with human milk and formula feeding among childcare administrators near Tampa, Florida	Qualitative	8
42	Kraus et al[51]	2021	USA	To determine the current state of parental leave policies for medical students at medical schools in the United States	Comparative study	1, 13
43	Agampodi et al[52]	2021	Sri Lanka	To identify barriers and facilitators for early initiation of breastfeeding and exclusive breastfeeding for 6 months in rural Sri Lanka	Qualitative study	1, 5
44	Vilar-Compte et al[53]	2021	Unspecified	To review workplace interventions to promote, protect and support breastfeeding practices among working mothers globally	Systematic review	3, 4, 5, 6
45	Ickes et al[54]	2021	Kenya	To understand the barriers and facilitating factors on the capacity to maintain EBF for the recommended 6-month duration among women employed in the commercial agriculture and tourism industries.	Qualitative study	1, 3, 4, 5, 6, 7, 8
46	Ahn et al[55]	2021	South Korea	To summarize the current state of the science on maternal adaptation for working mothers with infants or young toddlers in Korea and to analyze various influencing factors of maternal adaptation based on the ecological systems theory	Systematic review	5, 6, 7
47	Juarez et al[56]	2021	Sweden	To assess the unintended health consequences of various components of Sweden's parental leave policy, including eligibility for and uptake of earnings-based benefits	Quasi-experimental study	1, 13
48	Kebede & Seifu[57]	2021	Ethiopia	Compared the breastfeeding laws, policies, and arrangements in Ethiopia with international standards, recommendations, and evidence-based practices	Commentary	1, 4, 5, 10
49	Chen et al[58]	2021	USA	Describes an integrated dataset that was used to understand the relationship between participation in a nutrition assistance program and low-income children's breastfeeding outcomes	Descriptive study	5
50	Ongprasert & Siviroj[59]	2021	Thailand	To investigate factors associated with breastfeeding for at least one year among women in Chiang Mai, Thailand	Cross-sectional	6
51	Campos & Hawkins[60]	2022	Mexico	To determine whether household income moderated the association between maternal employment status (defined as unemployed, formal, and informal full- and part-time employed) and any breastfeeding for ≥ 6 months.	Cross-sectional	6
52	Carroll et al[61]	2022	Brazil & Ghana	To test the adaptability of the costing approach in countries with different informal sector challenges.	costing methodology	2

No	Authors	Year	Location	Study Aims	Methodology	Policy
53	Tomori et al[62]	2022	USA	To update the evidence base since 2016 using a review of reviews approach	Review of reviews	3, 4, 5
54	Gbagbo & Nkrumah[63]	2022	Ghana	To assess availability and implementation of breastfeeding policies and programs in three public universities in Ghana	exploratory-descriptive-case study	4, 5
55	Barasinski et al[64]	2022	France	To assess the percentage of departments in Auvergne with an appropriate space for pumping milk at work	Cross-sectional	3, 4
56	Walker et al[65]	2022	Texas	To provide an overview of essential areas of knowledge related to practice for neonatal nurses and midwives who care for breastfeeding mothers and babies	Discussion paper	5
57	Kim et al[66]	2023	South Korea	To shed light on how the work hour reduction policy may differently affect workers with different levels of resources and support by demographic and socioeconomic status	Quantitative study	6
58	Amer & Kateeb[67]	2023	Jerusalem	To describe breastfeeding habits and demographic factors influencing these practices in Jerusalem Governorate.	Cross-sectional	6
59	Al-Ghannami et al [68]	2023	Oman	To examine individual barriers and supports to exclusive breastfeeding (EBF) and identify potential policy and programmatic interventions in Oman	Mixed method	5
60	Andrade & Gil[69]	2023	Ecuador	To understand the trade-off between the time mother, devote to work and child-caring activities	Quantitative study	5
61	Namiiro et al[70]	2023	East Africa	To explore and document the unpriced costs parents incur following birth of a preterm infant in the first year of life in a low resource setting.	Qualitative study	5
62	Pac et al[71]	2023	California	To examine the effects of paid parental leave policies on health	Cross-sectional	13
63	Borrell-Porta et al[72]	2023	UK	To study whether the experience of 'employment during motherhood' (EDM) exerts an effect on attitudes towards the welfare effects of EDM, which proxy gender norms with regards to employment	Quantitative study	5
64	Sprague et al[73]	2024	USA	To investigate how eligibility criteria in the Family and Medical Leave Act (FMLA) and Affordable Care Act (ACA) affect access to unpaid parental leave and breastfeeding breaks and assessed affordability and alternative policy models	Quantitative study	13

From 64 literatures which were elaborated in **Table 1**, we managed to identify 13 policies related to child rearing for working mothers in the workplace. The distribution of policy included in the literature were presented in **Table 2.** Some literature included more than one policy; hence the frequency was based on the occurrence of the policy across the 64 studies.

From **Table 2** we can see the most policy was "paid maternity leave", being the most common policy that was regulated throughout the globe. A Delphi method study in Indonesia found that "paid maternity leave" was 1 out of 2 most important indicators of a workplace-based lactation promotion.[36] Followed by breast-pumping education and support (including but not limited to the availability of policy for breastfeeding, health, and nutrition counselling also encouragement from employers and work peers) along with breast-pumping facilities (comfortable and sufficient breast-pumping room, including refrigerator for breastmilk storage). The least talked about policies was "IYCF practice &

support among working mothers" with only one literature focusing on this topic.

Regarding implementations and implications of each policy, we classified them into 6 groups and detailed each in the next part of the article. First group, employee leave policy, including: paid maternity leave, paid sick/ medical leave, paid childbearing leave, also paid and unpaid parental leave. The second group is the breastfeeding related policy, which includes: breast-pumping education and support, facilities, also breaks during working hours. The third group focuses on flexible working arrangements policy, which covers flexible time/ schedule work arrangements and flexible place of work (work from home). Fourth group is day care policy. Childcare policy which covers childcare subsidies and bringing children to work is the fifth group. The last group will cover the IYCF practices and support policy in workplaces.

Table 2. Available workplace policy for working mothers

No	Policy	Frequency
1	Paid maternity leave (pre- and post-partum)	30
2	Breast-pumping education and support	21
3	Breast-pumping facilities	17
4	Breast-pumping breaks	16
5	Flexible working (time and/or place)	16
6	Daycare facility	7
7	Paid sick/ medical leave	6
8	Paid childbearing leave	4
9	Paid parental leave (mother and father)	4
10	Unpaid parental leave (mother and father)	3
11	Childcare subsidy	3
12	Bringing child to workplace	2
13	Infant and Young Children Feeding practices & support	1

2. Implementation and Implications of Child Rearing Workplace Policy

2.1 Employee Leave Policy

Employee leave policy includes paid maternity leave, paid sick/ medical leave, paid childbearing leave, unpaid parental leave, and unpaid parental leave. The International Labor Organization, which covers 178 countries as their member, has been in an agreement for Maternity Protection Convention No. 183 since the year 2000. In which paid maternity leave was obligated to working mothers with a duration of not less than 14 weeks.[6] Atabay et al.,[19] explored the implementation of maternity leave in UN countries and revealed that in 2014, 48 countries did not provide paid maternity leave as their policy. Sadly, this policy was proven to be discriminatory. In Bhutan, South Asia, this policy differentiates between civil servants (6 months) and corporate/private employees (3 months), resulting in numbers of nonexclusive breastfeeding.[34] The discrimination was most prominent for informal working mothers in South Africa and Ethiopia due to unavailable paid maternity leave. Their financial conditions forced them to return to work early because they could not afford taking an unpaid leave. This condition resulted in shorter duration of breastfeeding or even as far as abandoning breastfeeding practices for their child.[8,57]

The American Academy of Paediatrics recommended 12 weeks paid parental leave based on previous studies and its advantages for the child. The United States of America was one of the countries that have a paid parental leave policy. Nevertheless, a study in their 12 top medical schools along with a different study in 25 top schools of public health reported that employers only offered a mean length of 8.6 weeks of paid maternity leave for their staff.[40,74]

This implementation gap also existed in Pakistan. The Maternity Benefit Ordinance of Pakistan ordered that full-time working mothers were eligible for 12 weeks of paid maternity leave, but a study by Riaz & Condon[38] in a tertiary hospital of Pakistan revealed that none of it was provided by the hospital as the employer.

Among the included studies, China held the longest paid maternity leave with a length of 98 days and an extra 15 days for mothers who went through caesarean delivery or multiple

deliveries.[35] A more prevailing effort was displayed by South Korea as they granted paid vacation breaks in addition to paid sick leave and maternity leave. They believe promoting a thriving maternal transition experience for working mothers was not only beneficial for the mother/family's health but might increase women's willingness to give birth to subsequent children and further contribute to overcoming the historically low birthrate in Korea.[55]

Several studies explored the relationship between employee leave policy implementation and its implications for working mothers and their children. Paid maternity leave has been proven to have several benefits for both working mothers and their children, namely:[22,47,48,75]

1. Mental health quality: a decrease in maternal postpartum depression and domestic abuse at home, also an increase in children's attachment and development along with better stress management. Paid and longer maternity leaves also associated with a reduction of postpartum depression symptoms in high-income countries, which could protect mothers, especially new mothers, in adjusting to motherhood.
2. Physical health quality: a decrease in infant mortality and rehospitalisation of mothers and infants, in addition to an increase in paediatric visit attendance and punctual infant immunisations.
3. Breastfeeding practice: an increase of practice initiation and longer duration of breastfeeding for infants. Aikawa et al.,[17] revealed that mothers who returned to employment more than equal to 3 months after giving birth proved to practice a longer exclusive breastfeeding than mothers who returned less than 3 months.[17] Not only was paid maternity leave beneficial for the employees and their children, a study in the USA suggested that working mothers who were offered 6-12 weeks maternity leave by their employment place were 6 times more likely to return to work,[12] decreasing the employee turnover.
4. Productivity of the mother: extended paid leave for the mother might strengthened the labour market attachment of mother and increased maternal income, especially on first time mothers. A study found the relative productivity of women without children is significantly higher than women with children even generally higher than the productivity of men in the same occupation. However, women were reported to be less productive than men in low skilled jobs. This indicated women with children were not adequately facilitated in workplaces. [76]

Whereas it was suggested that unpaid leave, may benefited wealthier working women but had a different outcome for low-income family children where it could potentially exacerbate health disparities.[24] A study by Khan[77] found a decrease of 1.9–5.2 percent in the infant, neonatal, and under-five mortality rates following the implementation of paid maternity leave. Although other findings by Huebener et al.,[78] found there were no effects of the changes in parental leave benefits on child development across various socio-economic groups, and consequently no effects on socio-economic development gaps. Mixed findings regarding parental leave policy and health outcomes on children were found in previous studies, but it was apparent that the timing of the parental leave policy mattered.

2.2 Breast-pumping Related Policy

Atabay et al.,[19] noted that in 2014, 51 countries did not guarantee breastfeeding breaks in any form and 4 countries provided only unpaid breaks or breaks that did not cover the first 6 months of life. An expert panel study in Indonesia expressed that employees should have breast-pumping breaks every 3 hours at the workplace and deemed it as one of the two most important indicators for a workplace-based lactation promotion model.[36] Kavle et al.,[29] expressed the implementation of breast-feeding breaks in low-and middle-income countries required more attention, as it was reported to be one of the barriers toward exclusive breastfeeding practices barrier for them.[29]

Policy concerning breast-pumping physical facilities in workplaces was as important as the breast-pumping breaks. Working mothers of Egypt reported that their workplace had no breastfeeding facilities and support apart from nursing breaks for mothers in the formal sector.[39] China was an exemplary country for raising breast-pumping related policies. Chinese female employees were entitled for an hour breastfeeding break every day for the first year after giving birth. However, emotional pressure and discouragement from colleagues and higher-ups were reported in workplaces.[35] Which indicates that education to raise awareness on the importance of breastfeeding was not to be limited to the mothers but also to the surrounding environment.

Working mothers of Western Pacific WHO suggested that having a private room with a chair, table, electric outlet, and refrigerator were much needed physical facilities for comfort and convenience while expressing breastmilk.[79] The importance of support and trust from employers were apparently important, as the working mothers in Cambodia garment factory workers were equipped with breast-feeding facilities but they were refusing to use it due to lack of trust and support.[42]

Breast-pumping education and support policy ranging from encouragement and support from peers, education regarding breastfeeding, to counselling with lactation experts. The United States of America recognized the importance of breast-pumping education and support policy; therefore, The Affordable Care Act was enacted in year 2010. Unfortunately, some employers in the rural communities showed lacked compliance to the law by not providing sufficient education and support for their working mothers.[25]

A study among health-care workers mothers in Indonesia reported that healthcare workers mothers who practiced exclusive breastfeeding were 3.22 times less likely to experience sick children, compared to those who did not practice exclusive breastfeeding. There was also a significant relationship between breastfeeding practice and the productivity of healthcare working mothers. Healthcare working mothers who practiced exclusive breastfeeding were 2.99 times more productive than those who did not.[43] This highlighted the importance of breastfeeding feasibility for working mothers through breast-pumping related policy, including: facilities, paid breaks, reduced working hours, education & support.

Breastfeeding workplace intervention, mainly: lactation room, lactation breaks, and organizational policies were key strategies to help increase the duration of breastfeeding and prevented early introduction of age inappropriate feeding.[53]

2.3 Flexible Working Arrangement Policy

Flexible working arrangement whether as time or place of work for the working mothers, reported in result in more time spent for early childhood education and care (ECEC) by the parents. In Poland it was recognized as a law for breastfeeding working mothers to cut back their working hours, but it seemed this law was not implemented for healthcare professionals.[45] The Kenya Bill of Health also supported working mothers to breastfeed. Farm and hotel managers reported to support the bill through flexible work schedules, in which they revealed that mothers prefer to arrive later to work to ensure their child was breastfed properly.[54]

A flexible working policy in India, which was working from home, enabled working mothers to breastfeed their children during work hours and granted them privacy to do so. This was important because it was reported that male vendors in India disliked the idea of mothers to breastfeeding in the public due to privacy and respect concerns.[49]

This policy did not come with its inhibitions. In lower-income households displayed that children were less likely to be breastfed for more than 6 months when the mothers were an informal part-time employee. Whereas among higher-income households, children were less likely to be breastfed for more than 6 months when the mothers were a formal full-time employee. This outcome was also observed in a study based on maternal employment study in Jerusalem.[67] It

seemed that the working hours affected different demographics of working mothers differently.[80]

Reduction in working hours for mothers in employment should be considered by workplaces as a study in Germany indicated that 35 or more maternal work hours per week was associated with an elevated risk of childhood overweight and obesity (OR=1.64, 95% CI 1.10 to 2.44, p=0.02). Maternal full-time work hours were also associated with higher risk for childhood overweight and obesity. Although these findings were only in families with medium to high income but not in families below the income median.[37]

Flexible working place or work from home arrangements proved to have benefits not only for the children, but also the mothers. A decrease in depression score was observed in working mothers with children between 6-24 months in the USA.[23] A different outcome was reported in working mothers in the UK who were protected under The Flexible Working Act. They stated that flexible working arrangements had no impact on mothers' health and well-being.[32]

2.4 Daycare Policy

High quality and affordable childcare facilities were available to support working families within diverse European countries.[55] Meanwhile, only several farms in Kenya that reported to have subsidised on-site daycare. This arrangement allowed mothers to breastfeed during working hours. Unfortunately, not all farms in Kenya were equipped with on-site daycare facilities.[54] Some of the mothers had to travel from their workplace to the daycare which prevented them from practicing exclusive breastfeeding. Hence the distance of the daycare combined with transportation measures was crucial to the success of this policy.

The implementation of daycare policy was urgently needed for low-income families in Bangladesh, since it was reported the need for daycare among slum households was 3.8 times higher than those of non-slum households in Dakha area. Approximately 24% of working mothers in Dakha had been turning-down paid work due to lack of childcare and the other 84% were willing to pay up to ~$3.30 per month to use a daycare.[50] Women in sub-Saharan Africa also expressed the conflict between day care and paid work responsibilities. As quoted from Clark et al.,[44] from his study in Kenya, "Yet, ironically, in the continent with the highest fertility rates, NGOs, policymakers, and researchers generally perceive the least conflict between women's childcare responsibilities and their engagement with paid work. Programmes that fall under the umbrella of WEE in sub-Saharan Africa typically emphasise increasing women's education, job training, and access to microcredit, but they do not focus on providing subsidized daycare." Expressing urgency for emergence of daycare, preferably subsidised.

One of the challenges of on-site daycare in workplaces was identified by Gbagbo & Nkrumah.[63] They stated financial feasibility proved to be a major hurdle for employers to launch childcare policy/programs. Not to be disheartened, subsidized day care was proven to be cost-effective, due to the effects that it would bring which was increased maternal employment and human capital development, which could far outweigh the cost of its implementation.[44]

2.5 Childcare Policy

Some studies included childcare policy as one of the child rearing workplace policies. Childcare policy in this study consisted of childcare subsidy and bringing child to work. In Germany, childcare subsidies were offered by the German government through Parental Allowance Plus and Partnership Bonus. This initiative provided financial aid for mothers and fathers to work part-time.

The effect of childcare subsidy was important to be seen from an economic perspective. Carroll et al.,[61] used an estimation model to predict the cost of maternity cash transfer or childcare subsidy in informal sectors of Brazil and Ghana, where it respectively would cost them 0.004-0.02% of the GDP and 0.076-0.28% of the GDP, respectively. These shares reflect lower investments in accordance with the estimated cost of not breastfeeding.

A study in the USA revealed that childcare subsidies were associated with a decrease in physical and mental health of the working mothers. They even reported an increase in anxiety, depression, and parenting stress in mothers. Increased psychological and physical aggression towards children were also observed in this condition. A close and thorough evaluation was much needed so that this policy would not have such detrimental effects on the well-being of children.[14]

As for the bringing child to work policy, some employers prohibited this action. In a tertiary hospital in Pakistan, bringing a baby to work was apparently a routine occurrence amongst nurses even though it was against the hospital's permission. Fortunately, the nurse management tolerated it to some degree as a means for the nurses to work.[38]

2.6 IYCF Practices & Support Policy

IYCF or known for Infant and Young Children Feeding has been known to impact children in a positive light. Improvement of health, development, nutritional status was reported therefore increasing their chance of survival.[81] Enhancing nutrition, health, and overall development in children aged 0 to 23 months is of utmost importance to prevent inadequate feeding practices during this critical period.

Lack of awareness regarding IYCF practices was shown in working mothers of informal work environments in India and South Africa. Upon return to their workplaces many mothers changed their infant feeding practices by adding breastmilk substitutes. Non-breastmilk fluids such as formula milk, buffalo milk, and non-nutritive fluids (Rooibos tea) were reported to be some of them. Some mothers also raised their concerns regarding 'spoilt' breastmilk if they express it during working hours. Hygiene and safety were also some of the problems that caused working mothers in informal work environments to avoid expressing breastmilk in workplaces. Counselling mothers on optimal feeding behaviour was a potentially a successful intervention to convert awareness into actual practice for working mothers in India,[21] opening opportunities for other workplaces to start implementing this policy.

Woldetensay et al.,[82] reported better maternal social support were associated with higher scores of infant feedings. This highlighted how important it is to support mothers from all sectors possible. The attention of primary caregiver, mainly mothers in some cultures, is essential to ensure the child received proper practices of IYCF, including the monitoring of the child's feeding to ensure the frequency also quality of feeding and diet during the complementary feeding period. A proper IYCF practice can lower the risk of child malnutrition, reduced the vulnerability to illnesses (such as acute respiratory infections, diarrheal diseases), and reduced the risk of childhood mortality.[83] Moreover, low variety complementary feeding (related to Minimum Dietary Diversity) had been linked to incidence of stunting by 1.72 times, compared to those who ate various type of complementary feeding. Frequency of complementary feeding also had association with increase incidence of stunting by 1.85 times.[84]

Due to the importance of IYCF practices and yet the lack of literature in this sector, development of IYCF supporting policies in the workplaces was much needed and encouraged for further research.

Conclusion

Child rearing workplace policies are a complex multisectoral effort. The proper implementation could result in positive implications for working mothers and their children. This scoping review explored the available child rearing workplace policy and how those current policies are implemented. Its implications could go beyond employers, the employees, but also their families by increasing nutritional and health status of the child, hence increasing the quality of life of the people surrounding it. Opportunities for actions to facilitate a better motherhood and working experience must come in awareness to better support working mothers.

Further research and effort into the development, implementation, and evaluation of the topic may result in increased productivity for workplaces and healthier outcomes for working mothers and their children.

Conflict of interest

The authors declare there is no conflict of interest regarding this article.

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