Factors promoting exclusive breastfeeding at a public health facility in Windhoek Namibia: A descriptive comparative study

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A B S T R A C T

Introduction: Exclusive breastfeeding (EBF) refers to the practice of giving an infant breast milk only up to the age of six months, except for oral rehydration solutions or drops/syrups of vitamins, minerals or medicines. Globally and in Namibia, EBF rates remain well below the 70% World Health Organisation (WHO) target.
Objective: This study aimed to investigate factors that promote EBF amongst mothers at a public health facility in Windhoek, Namibia.
Methods and materials: A quantitative comparative descriptive design was used. Women aged 18 and above with infants aged 0 to 6 months attending a public health facility (n = 270) in Windhoek, Namibia, were selected using non-probability consecutive sampling. A structured self-administered questionnaire was used to collect data on socio-demographic, economic, knowledge, psychosocial, biophysical and sociocultural factors. Data was analysed using descriptive statistics and logistic regression.
Results: A large majority of participants practised EBF (87.8 %, n = 237). No significant socio-demographic, economic, knowledge, psychosocial or sociocultural predictors of EBF were identified. Having more than two pregnancies and more than two children were found to be statistically significant predictors of EBF (OR = 2.9, CI = 1.0 to 8.4, p = 0.05), (OR = 3.2, CI = 1.0 to 10.1, p = 0.05)
Conclusion: EBF practice in this study is high, suggesting that mothers who access maternal healthcare services may be more likely to practice EBF. Primiparous mothers need increased support to promote EBF.

1. Introduction

The World Health Organization (WHO) recommends the practice of exclusive breastfeeding (EBF) during the first six months of life to achieve optimal health, growth and development (WHO, 2021). However, only 44 % of infants aged 0–6 months worldwide were exclusively breastfed from 2015 to 2020 (WHO, 2021). Optimal breastfeeding is so critical that the practice can avoid over 820 000 infant deaths annually (Dalcastagnê, Giugliani, Nunes, Hauser, & Giugliani, 2018). Therefore, global EBF guidelines were created to promote, protect and support breastfeeding in all mothers, irrespective of HIV status and increase the rate of EBF to at least 50 % by 2025 (WHO/UNICEF, 2014).

The positive benefits of EBF for the infant include decreasing morbidity and mortality, reducing the risk of chronic disease and hospitalisations, and fostering better neurodevelopment (Bhattacharjee, Schaeffer, & Hay, 2021; Chowdhury et al., 2015; Domenici & Vierucci, 2022; Laksono, Wulandari, Ibad, & Kusrini, 2021; Vaz et al., 2021).

The benefits for mothers practising EBF include a reduction in the risk of postpartum haemorrhage and depression, a decrease in the incidence of ovarian and breast cancer, cardiovascular diseases, diabetes and obesity, and birth spacing (Chowdhury et al., 2015; Laksono et al., 2021; Tesfu, Beyene, Sendeku, Wudineh, & Azeze, 2022).

EBF remains a key strategy to help control societal costs as it may stabilise individual financial strain of purchasing formula milk and improve the national economy expenditure related to hospitalisation, healthcare visits and medicine (Al-Binali, 2012).

Multiple factors are regarded as vital in promoting EBF. These factors include socio-demographic and economic (the mother's age, level of education, marital status, geographical location, employment status); knowledge of EBF; psychosocial and biophysical factors (attitude and self-efficacy); and sociocultural factors (societal norms, family and partner support, healthcare worker support and positive cultural beliefs)

(Balogun, Dagvadorj, Anigo, Ota, & Sasaki, 2015; Nguyen, Prasopkitti-kun, Payakkaraung, & Vongsirimas, 2021; Kimani-Murage et al., 2015; Wanjohi et al., 2016).

Although many EBF promoting factors have been identified, their influence may be individual and context-specific. For example, one study found that EBF practice decreases with the age of the mother as older mothers have more responsibilities and less time to breastfeed (Indongo & Mutorwa, 2017), whereas another study found that older mothers are more likely to breastfeed due to their experience (Edwards, Cragg, Dunn, & Peterson, 2021).

The benefits of EBF are well articulated in the guidelines and reports; however, the rate of EBF remains relatively low in most middle and low-income countries (UNICEF & WHO, 2018; Rollins et al., 2016). The EBF rate in Namibia was 16 % in 2013 (NDHS, MOHSS, & ICF, 2014) with a slight increase to 19 % in 2017 (Indongo & Mutorwa, 2017).

A study conducted on factors promoting EBF in Namibia has shown mixed results (Indongo & Mutorwa, 2017). Therefore, the evidence remains unclear on which factors may promote EBF in this context. Most studies did not include a comprehensive list of factors influencing EBF practice. This study aimed to investigate the factors promoting EBF amongst mothers at a public health facility in Windhoek, Namibia.

2. Methods and materials

2.1. Study design

This study used a quantitative comparative descriptive design to describe variables and examine differences in variables between participants who practised EBF and those who did not.

2.2. Study setting and participants

The study was conducted in the postnatal and immunisation departments at a public health facility in Windhoek, Namibia. This centre is located in the Katutura district of Windhoek and is a referral public health facility that operates 24 h a day. The population included all mothers who were practicing EBF and those not practicing EBF who attended the services at the postnatal and immunization departments at KHC within the three months' study period. The health facility provides healthcare services to a catchment population of approximately 120 594 people (MoHSS, NIP, & NSA, 2013). The total population is not known, but an average of 200 mothers use the postnatal services every month. The postnatal services at the centre include assessment and clinical examination of the mother and the baby, immunisation, growth monitoring and follow-up treatments for infant's 0–5 years. Sick infants are referred to Windhoek Central Hospital, which has a neonatal care unit.

2.3. Sample size and sampling technique

Mothers aged 18 years and above with infants between 0 and 6 months attending the postnatal and immunisation departments of the health facility were included in the study. Mothers under 18 were excluded since adolescent mothers may have unique factors contributing to their EBF practices.

Since no sampling frame was available, participants were sampled using a non-probability consecutive sampling technique. This meant that all eligible women attending the facility who consented to participate were included until the minimum sample size was reached. Representativeness was increased by sampling over three months, on a Monday and a Friday.

A power analysis was performed with the assistance of a biostatistician to determine the required sample size to test for the association of a single factor with EBF. Knowledge of EBF was considered an important factor, and considering the question, '*Breastmilk provides all the nutrients a child needs in the first six months (true/ false)*', we expected that 40 % of the participants would consider this a true statement. Based on the WHO

estimate of EBF prevalence for Namibia of 19 %, the significance level proposed was 5 %, and it was assumed that the EBF proportions were 14 % in the 'false' group versus 28 % in the 'true' group. Therefore, the estimated sample size required for a power level of 80 % was 264. In this study, 270 women were recruited to account for any attrition due to incomplete questionnaires. After checking the questionnaires for completeness, all 270 questionnaires were included.

2.4. Data collection instrument

This study used the structured self-administered questionnaire adapted from other instruments (Maonga, Mahande, Damian, & Msuya, 2016; Rahman, Dewi, Fitrasyah, Oktaviani, & Rifai, 2017) and based on the literature. Permission was granted to use the questionnaires. The questionnaire was prepared in English and translated in Oshiwambo; forward and backward translations were used.

The baby's age and self-reported duration of EBF were used to determine the proportion of mothers practising EBF. In this study, EBF was operationalised as exclusive breastfeeding practice for infants aged 0–6 months. The dependent variable, EBF, was coded as 0 = no EBF and 1 = EBF.

The questionnaire contained questions related to socio-demographic and economic factors such as the mother's age, level of education, marital status, employment status, residential location, baby's age and gender and family income status. These questions were measured on a nominal scale, categorising responses into different categories.

Knowledge of EBF consisted of twelve true or false questions assessing mothers' understanding of several aspects of EBF. A knowledge score was created with a maximum score of 12.

Questions related to psychosocial and biophysical factors sought to determine the mothers' intrapartum experience, attitudes towards EBF and confidence to practice EBF. The section included thirteen questions on biophysical factors and four on previous breastfeeding experience. Attitudes towards EBF were measured using 18 Likert-scale questions ranging from 1 = strongly disagree to 4 = strongly agree. An attitude score was created with a maximum score of 72.

Sociocultural factors were measured by seven questions related to the support received from healthcare workers, family and partners, as well as seven questions on cultural beliefs.

2.5. Validity and reliability

As stated above, the questionnaire was adapted based on the literature on factors promoting EBF among mothers. The tool was evaluated for content validity by two postnatal midwifery experts and two academic experts in midwifery. The study instrument was pretested with 30 participants at Windhoek Central Hospital. As a result, alterations were made to the questionnaire. Some medical terms were changed to layman's terms. No changes were made to the translated version of the questionnaire. Pilot data were excluded from the main study.

Reliability analysis was performed on the attitude scale. The included questions' Cronbach's alpha was 0.72 and was found to be suitable for the purpose of the study (Taber, 2018).

2.6. Data collection procedures

Data was collected from April 2020 to June 2020 by the researcher (first author) during the Covid-19 pandemic. The first author is not employed at the healthcare facility where data was collected and was present during data collection to assist participants in case of questions or assistance needed to complete questionnaires. All risk mitigation guidelines were adhered to, such as the compulsory wearing of a surgical mask, practising hand hygiene upon facility entry and frequently after every procedure using an alcohol-based hand rub, social distancing by keeping at least one metre between the researcher and the participants, and a Covid-19 register was kept of all the participants (MOHSS, 2021).

Mothers were allowed to bring their babies for scheduled immunisation and postnatal follow-up care during the pandemic.

Before approaching the prospective participants, the researcher reported to the facility matron and the operational manager or the nurse-in-charge allocated to the specific department.

2.7. Ethical considerations

The study was approved by the Health Research Ethics Committee of Stellenbosch University (S19/06/112) and the Research Management Committee (RMC) of Namibia (protocol number 17/3/3RMN). Information about the study was provided to the participants in the waiting room, and then a time was arranged with the mothers to complete the questionnaire – either while they waited for their appointment or after their appointment. The researcher obtained written informed consent from the participants in a private counselling room. The mothers who provided written informed consent were requested to complete the self-administered questionnaire in the private counselling room.

2.8. Data processing and analysis

Statistical analysis was performed using STATA version 16 with the assistance of a biostatistician. Descriptive statistics were used to describe the demographic characteristics of the participants and the factors promoting EBF. The dependent variable in this study was EBF, which is dichotomous. All the independent variables were nominal or ordinal. The frequencies and the percentages were computed and presented in a table comparing the EBF and non-EBF groups. Means and standard deviations were used to calculate the continuous variables, such as the knowledge and attitude scores. Logistic regression was performed to determine the individual factors that predicted EBF among the mothers. A level of statistical significance was set at $p < 0.05$, and the corresponding confidence interval was 95 %.

3. Results

A total of 270 mothers participated in the study. The mean age of these mothers was 28.74 years (SD 6.1). Of the 270 participants, 237 (87.8 %) practised EBF and 33 (12.2 %) did not practice EBF. The reported EBF rate was the highest amongst mothers with three-month-old babies (98.5 %, n = 65) and the lowest amongst six-month-old babies (68.5 %, n = 50) (not shown in the table).

Most participants had a higher secondary level education (56.1 %, n = 5) and above (34.2 %, n = 81). The majority were single (82.7 %, n = 196) and resided in an urban area (84.8 %, n = 201).

Most mothers were unemployed (43.0 %, n = 102) with an average family income of less than N$10 000 in the EBF group (87.3 %, n = 207) and non-EBF group (78.8 %, n = 26).

Table 1 depicts the socio-demographic and economic factors. None of the factors was associated with EBF practice.

Table 2 depicts biophysical factors. More than two pregnancies and having more than two children were identified as statistically significant predictors of EBF (OR = 2.9, CI = 1.0 to 8.4, p = 0.05), (OR = 3.2, CI = 1.0 to 10.1, p = 0.05). Overall, participants reported high antenatal care (ANC) attendance (96.2 % in the EBF group vs 93.9 % in the non-EBF group).

Participants also reported high frequencies of receiving health education on EBF; 88.6 % (n = 210) in the EBF group and 84.9 % (n = 28) in the non-EBF group.

Participants who practised EBF had a higher frequency of previous breastfeeding experience (63.7 %, n = 151) than those who were not exclusively breastfeeding (51.5 %, n = 17), although the difference was not significant.

The participants had predominantly positive attitudes towards EBF. The EBF group had a slightly higher mean attitude score toward EBF practice (54.9/76.3 % vs 54.4/75.6 %), but the difference was not

Table 1
Socio-demographic and economic factors.

Variables:	EBF - Yes n (%)	EBF - No n (%)	Odds ratio (OR)	P value	95 % Confidence Interval
Education level (n = 270)					
None	5 (2.1)	0 (0)	1		
Primary education	18 (7.6)	2 (6.1)	1.1	0.90	0.2–5.5
Secondary education	133 (56.1)	21 (63.6)	0.8	0.55	0.4–1.7
Tertiary education	81 (34.2)	10 (30.3)	1 (omitted)[1]		
Marital status (n = 270)					
Married	40 (16.9)	4 (12.1)			
Single	196 (82.7)	29 (87.9)	0.7	0.49	0.2–2.0
Widow	1 (0.4)	0 (0.0)			
Location (n = 270)					
City (urban)	201 (84.8)	28 (84.9)			
Village (rural)	36 (15.2)	5 (15.2)	1.0	1.00	0.4–2.8
Employment status (n = 270)					
Employed	94 (39.7)	17 (51.5)			
Unemployed	102 (43.0)	14 (42.4)	1.3	0.48	0.6–2.8
Self-employed	41 (17.3)	2 (6.1)	3.7	0.09	0.8–0.8
Gender of baby (n = 270)					
Female	125 (52.7)	14 (42.4)			
Male	112 (47.3)	19 (57.6)	0.7	0.27	0.3–1.4
Family average income (n = 270)					
Less than N$ 10 000	207 (87.3)	26 (78.8)			
More than N$ 10 000	30 (12.7)	7 (21.2)	0.5	0.19	0.2–1.3

Source: Author's table.
[1]Omitted because of collinearity.

significant (OR 1.0, 95 % CI 1.0 to 1.1, p = 0.63).

The mean knowledge scores of EBF were high in both groups. Although the scores were slightly higher in the EBF group (9.2/ 76.5 % vs 9.0/75.3 %), the difference was not significant (OR 1.1, 95 %CI 0.8 to 1.4, p = 0.54).

Participants reported high levels of support across the EBF and non-EBF groups (see Table 3). In some instances, the support frequency was higher in the group not practising exclusive breastfeeding. Of concern is that more than half of the participants in both groups indicated that they encountered family constraints when initiating breastfeeding (65.4 % and 57.6 %).

The influence of cultural factors could be seen in that many participants reported that there are still traditional or cultural practices that may hinder EBF, such as other foods (EBF 26.6 % and non-EBF 30.3 %), herbs (EBF 33.3 % and non-EBF 30.3 %) and covering the breast (EBF 55.3 % and non-EBF 51.5 %) (Table 4). However, these practices were not associated with EBF practice.

Table 2
Biophysical factors.

Variable	EBF-yes n (%)	EBF-no n (%)	Odds ratio (OR)	P-value	95 % confidence interval
Number of pregnancies (=270)					
One	84 (35.4)	15 (45.5)			
Two	71 (30.0)	13 (39.4)	1.0	0.95	0.4–2.2
More than two	82 (34.6)	5 (15.1)	3.0	0.05	1.0–8.4
ANC attendance during pregnancy (n = 270)					
Yes	228 (96.2)	31 (93.9)			
No	9 (3.8)	2 (6.1)	0.6	0.54	0.1–3.0
Health education on EBF (n = 270)					
Yes	210 (88.6)	28 (84.9)			
No	27 (11.4)	5 (15.1)	0.72	0.53	0.1–2.0
Baby place of birth (n = 270)					
Hospital	234 (98.7)	32 (97.0)			
Home	3 (1.3)	1 (3.0)	0.4	0.45	0.0–4.1
Mode of delivery (n = 270)					
Normal delivery	192 (81.0)	9 (27.3)			
Caesarean section	45 (19.0)	24 (72.7)	0.6	0.27	0.3–1.4
Number of children (n = 270)					
One	85 (35.9)	15 (45.5)			
Two	79 (33.3)	14 (42.4)	1.0	0.99	0.5–2.2
More than two	73 (30.8)	4 (12.1)	3.2	0.05	1.0–10.1
Breastfeeding initiation time (n = 270)					
Immediately	80 (33.8)	11 (33.3)			
Thirty minutes	36 (15.2)	4 (12.1)	1.2	0.73	0.4–4.2
One hour	33 (13.9)	4 (12.2)	1.1	0.84	0.3–3.8
I don't remember	88 (37.1)	14 (42.5)	0.9	0.72	0.4–2.0
HIV status (n = 270)					
HIV positive	18 (7.6)	4 (12.1)			
HIV negative	214 (90.3)	28 (84.9)	1.7	0.37	0.5–5.4
Not known					
Choose not to disclose	5 (2.1)	1 (3.0)	1.1	0.93	0.1–12.3
Illness preventing EBF (n = 270)					
Yes	9 (3.8)	1 (3.0)			
No	228 (96.2)	32 (97.0)	0.8	0.83	0.1–6.5
Previous experience on EBF (n = 270)					
Yes	151 (63.7)	17 (51.5)			
No	86 (36.3)	16 (48.5)	0.6	0.18	0.3–1.3

Source: Author's table.

4. Discussion

A large majority of participants practised EBF (87.8 %, n = 237), which is much higher than that of a study conducted in Namibia in 2017 (19 %) (Indongo & Mutorwa, 2017) and twice the global rate of 42 %

Table 3
Social factors.

Variable	EBF-yes n (%)	EBF-no n (%)	Odds ratio (OR)	P-value	95 % confidence interval
Did you get support and encouragement from healthcare professionals about the importance of exclusive breastfeeding? (n = 270)					
Yes	197 (83.1)	31 (93.9)			
No	40 (16.9)	2 (6.1)	0.3	0.13	0.1–1.4
Did the healthcare professional inform you about the effects of not exclusively breastfeeding the baby? (n = 270)					
Yes	198 (83.5)	28 (84.9)			
No	39 (16.5)	5 (15.1)	0.9	0.85	0.3–2.5
Did the healthcare professional explain that early breastfeeding initiation is very important because the colostrum (first milk) content is good for the baby? (n = 270)					
Yes	219 (92.4)	28 (84.9)			
No	18 (7.6)	5 (15.1)	2.2	0.15	0.7–0.7
Did the healthcare professional give you health education on the correct attachment and positioning of your baby during breastfeeding? (n = 270)					
Yes	198 (83.5)	28 (84.9)			
No	39 (16.5)	5 (15.1)	0.9	0.85	0.3–2.5
Did your partner support your decision to breastfeed your child exclusively? (n = 270)					
Yes	210 (88.6)	30 (90.9)			
No	27 (11.4)	3 (9.1)	0.8	0.69	0.2–2.7
Did your family support you during the exclusive breastfeeding period? (n = 270)					
Yes	214 (90.3)	29 (87.9)			
No	23 (9.7)	4 (12.1)	1.3	0.67	0.4–4.0
Did you encounter any family constraints when you initiated exclusive breastfeeding? (n = 270)					
Yes	155 (65.4)	19 (57.6)			
No	82 (34.6)	14 (42.4)	0.7	0.38	0.3–1.5

Source: Author's table.

(UNICEF & WHO, 2018). The differences may be attributed to the self-reported EBF rate in this study, the population included mothers of infants 0–6 months, and the data collection was cross-sectional. The reported EBF rate was the highest amongst mothers with three-month-old babies and the lowest amongst six-month-old babies, suggesting that the practice of EBF is likely to decline over time.

None of the socio-demographic variables in our study was significantly associated with EBF practice. Similarly, mixed findings regarding the influence of age on EBF practice have been reported in the literature (Hossain, Islam, Kamarul, & Hossain, 2018; Indongo & Mutorwa, 2017; Laksono et al., 2021; Mundagowa, Chadambuka, Chimberengwa, & Mukora-Mutseyekwa, 2019). Contrary to our findings, higher levels of education were associated with EBF practice in studies conducted in Somalia, Indonesia and Cameroon (Jama et al., 2020; Laksono et al., 2021; Tambe et al., 2018). In addition, studies conducted in Virginia and Namibia indicated that being married was associated with longer breastfeeding (Indongo & Mutorwa, 2017; Masho, Morris, & Wallenborn, 2016).

In our study, economic status was not significantly associated with EBF practice, but participants with a low family income were more likely to breastfeed exclusively than those with a high family income. This finding is consistent with a study done in Ethiopia where mothers with a high income were less likely to practice EBF because they were more likely to afford formula milk and had busy schedules that kept them away from home (Shifraw, Worku, & Berhane, 2015). On the contrary, in Ghana, mothers with a low income struggled with EBF because they experienced a challenge feeding themselves and therefore struggled to meet the energy demands of practising EBF (Manyeh, Amu, Akpakli, Williams, & Gyapong, 2020). Mothers with low income may have stressful living situations and perceptions of inadequate milk production

Table 4
Cultural factors.

Variable	EBF-Yes n (%)	EBF-No n (%)	Odds ratio (OR)	P value	95 % Confidence interval
Is exclusive breastfeeding recommended in your culture? (n = 270)					
Yes	204 (86.1)	29 (87.9)			
No	33 (13.9)	4 (12.1)	0.9	0.78	0.3–2.6
Do you perform traditional ceremonies associated with the birth of a baby at the age of 0–6 months where the baby is fed with any other food besides breast milk? (n = 270)					
Yes	63 (26.6)	10 (30.3)			
No	174 (73.4)	23 (69.7)	0.8	0.65	0.4–1.8
Is it common to rub herbs, vaseline or water on the mother's nipple during exclusive breastfeeding? (n = 270)					
Yes	79 (33.3)	10 (30.3)			
No	158 (66.7)	23 (69.7)	1.2	0.73	0.5–2.5
Is it common to cover a mother's breast when breastfeeding? (n = 270)					
Yes	131 (55.3)	17 (51.5)			
No	106 (44.7)	16 (48.5)	1.2	0.69	0.6–2.4
Do families in your environment have a habit of giving other foods to the baby age of 0–6 months? (n = 270)					
Yes	85 (35.9)	16 (48.5)			
No	152 (64.1)	17 (51.5)	0.6	0.16	0.3–1.2
Does your culture prohibit sexual activity while breastfeeding? (n = 270)					
Yes	80 (33.8)	12 (36.4)			
No	157 (66.2)	21 (63.6)	0.9	0.77	0.4–1.9
Were you guided by any family member on breastfeeding option practice? (n = 270)					
Yes	145 (61.2)	22 (66.7)			
No	92 (38.8)	11 (33.3)	0.8	0.54	0.4–1.7

Source: Author's table.

that make them initiate mixed infant feeding early (introducing other foods and liquids along with breast milk) (Muchacha & Mtetwa, 2015).

Regarding biophysical factors, having more than two pregnancies and more than two children were the only statistically significant predictors of EBF. It may be because those mothers have experience in breastfeeding exclusively (Hackman, Schaefer, Beiler, Rose, & Paul, 2015; Mundagowa, Chadambuka, Chimberengwa, & Mukora-Mutseyekwa, 2019; Nishimaki, Yamada, Okutani, Hirabayashi, & Tanimura, 2021; Keloglan, Yilmaz, & Gumus, 2018). Confirming this, we found that mothers who practised EBF had a higher frequency of previous breastfeeding experience. Contrary to our findings, a study conducted in Dhaka, Bangladesh, found that the place of birth and mode of delivery were associated with EBF and that mothers who gave birth vaginally were 2.5 times more likely to breastfeed exclusively compared to those who delivered by caesarean section (Hasan, Hassan, Khan, Tareq, & Afroj, 2021). We may not have detected a difference due to the high percentage of hospital-based vaginal deliveries in both the EBF and non-EBF groups.

Although knowledge of EBF did not predict EBF practice in this study, participants had high knowledge scores across both groups (76.5 % and 75.3 %). Similar to our findings, a study in Zimbabwe found that knowledge of EBF does not necessarily translate to EBF practice because, in some African cultures, the mother-in-law discourages EBF, and mixed infant feeding is initiated despite the mothers' knowledge of EBF benefits (Muchacha & Mtetwa, 2015). On the contrary, studies in Congo and India found a positive association between knowledge and EBF practice (Dhakal, Lee, & Nam, 2017; Hasan et al., 2021).

Social factors did not influence EBF practice in this study. Although most participants (84.4 %) received support from health care professionals and families regarding EBF practice, more than half indicated that family constraints prevented breastfeeding initiation. In Ethiopia,

mothers who received healthcare support on EBF were more likely to practice EBF (Asemahagn, 2016).

Although cultural factors did not predict EBF practices, participants reported traditional and cultural practices that may hinder EBF, such as providing additional food, herbs and covering the breast. Cultural beliefs strongly influence the practice of breastfeeding; such beliefs include a mother's thoughts of not having enough milk (Anggraeni, Aji, Setiyani, Kartikasari, & Rahmawati, 2018; WHO & UINICEF, 2021) or perceptions that breast milk or colostrum is nutritionally inadequate, 'dirty', sour, and difficult to digest. Cultural beliefs can cause delays in the initiation and contribute to the cessation of breastfeeding (Kimani-Murage et al., 2015).

5. Strengths and limitations

The study's strength was the comprehensive exploration of factors that influence breastfeeding and included all mothers with babies aged 0 to 6 months. The study was conducted at one public health care facility situated in an urban area amongst women who attended postnatal care, thus limiting the degree to which it represents the larger population. In addition, this was a cross-sectional study and relied on data provided at that time. While the data could have been accurate at that time, it does not reflect the practice of EBF of the mothers over a longer period.

6. Conclusions

The current study and literature revealed few factors consistently related to EBF practice, suggesting that current evidence on predictors of EBF is inconclusive. Extensive EBF psychosocial support and encouragement of mothers to attend antenatal care may lead to the achievement of optimal breastfeeding practices. Efforts should be made to eliminate the misconceptions that hinder exclusive breastfeeding, and awareness of EBF benefits must be promoted among mothers.

7. Recommendations

New mothers and those with less than two children should receive particular attention and be encouraged to practice EBF. The health system should expand health promotion activities and promote antenatal care services to all women within the community in urban and rural settings. In addition, healthcare providers should consider integrating sociocultural practices that promote EBF into perinatal care, involve the mothers' families and continuously provide health education and support to mothers during the perinatal period.

8. Funding sources

9. Availability of data and materials

The datasets generated and/or analysed during the current study are not publicly available due to participant privacy but are available from the corresponding author upon reasonable request and approval by the Health Research Ethics Committee of Stellenbosch University.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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