European Journal of Preventive Medicine
2021; 9(6): 149-156
http://www.sciencepublishinggroup.com/j/ejpm
doi: 10.11648/j.ejpm.20210906.12
ISSN: 2330-8222 (Print); ISSN: 2330-8230 (Online)

Attitudes and Community Perspectives on Male Involvement in Breastfeeding, in Juba, South Sudan

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To cite this article:

Tobijo Denis Sokiri Moses, Ebenezer Obi Daniel, Zecho Gatkek Gatka-al, Wani Silas Lubang, Ahmed Mamuda Bello, Essien Grace Clement, Paul Olaiya Abiodun, Adebanke Adetutu Ogun, Israel Olukayode Popoola, Christiana Asibi-Ogben Inegbeboh, Michael Olabode Tomori, Friday Iyobosa Igbinovia, Michael Avwerhota. Attitudes and Community Perspectives on Male Involvement in Breastfeeding, in Juba, South Sudan. *European Journal of Preventive Medicine*. Vol. 9, No. 6, 2021, pp. 149-156. doi: 10.11648/j.ejpm.20210906.12

Received: November 14, 2021; **Accepted**: December 3, 2021; **Published**: December 24, 2021

Abstract: Fathers strongly influence the lactating mothers' decisions to initiate and continue breastfeeding as the father's infant feeding preferences may affect her intentions to breastfeed. This inspiration is a product of the perceptions of their roles as members of the breastfeeding family. Despite this, available breastfeeding promotion interventions in South Sudan, such as mother-to-mother support groups, focus on the mother. Equally, available literature on breastfeeding addresses general topics with limited exploration of male partner involvement. This study sought to understand male partner breastfeeding attitudes, beliefs, perceptions, and opinions as drivers to actions, community views on male involvement, breastfeeding in public, and barriers to male participation in the breastfeeding process using a quantitative-qualitative methodology. Two hundred seventy-five fathers of children under two years responded to 9 close-ended questions exploring their attitudes towards breastfeeding, and 63 community leaders, women groups, religious leaders, and individuals of interest participated in 15 Key informant interviews and five focus group discussions. Data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 28.0 and thematically to generate frequency tables, median (Mdn), and interquartile range (IQR), and recurring patterns. 200 (73%) of fathers were knowledgeable of the benefits of breastfeeding, and 224 (82%) did not believe breastfeeding negatively affects marriage. 217 (79%) disagreed that women lose their attractiveness when breastfeeding. 247 (90%) supported breastfeeding in public, and 224 (82%) agreed to share breastfeeding responsibilities. Patriarchal issues, gender role segregation, Sexism, and false beliefs; work-related, social, economic, and personal factors emerged as key barriers to male involvement in breastfeeding. While this study essentially presented positive attitudes of male partners towards breastfeeding, the cultural barriers that emerged are significant. Therefore, there is a need to design context-specific models to dispel misinformation about male participation in breastfeeding and expand on standard supportive practices.

Keywords: Attitudes, Breastfeeding, Male, Involvement, Community, Perspectives

1. Introduction

This study aimed to generate knowledge on male partners' attitudes in breastfeeding and community perspectives on their involvement to advise policy design and provide data for Infant and young child feeding (IYCF) interventions. The study addressed gaps in knowledge on male breastfeeding beliefs, perceptions, and opinions as drivers to actions and community views on male involvement, breastfeeding in public, and barriers to male participation in the breastfeeding process.

The study builds on the background that breastfeeding rates in South Sudan are low for initiation and sustainability except for exclusivity at 74% [1]and that if children receive adequate breastfeeding, including early initiation and exclusivity for the first six months of life, and sustainability up to 2 years, childhood illnesses such as diarrhea, Acute Respiratory Infections and malnutrition can be reduced by half [2].

Previous studies show that male partners support breastfeeding but would like to get involved in the process. While this offers a positive attitude, it is also on record that male partners are responsible for opposing breastfeeding [3].

Despite this fact, available breastfeeding promotion interventions such as the mother-to-mother support groups are focused on mothers leaving out the influence of fathers.

Equally, available literature on breastfeeding in South Sudan addresses general topics with limited exploration of male partner involvement.

The United Nations Sustainable development goal 3, target 3.2, aims to end all preventable deaths of new births and under-five years and reduce under-five mortality to at least 12 deaths per 1000 live births by 2030 [4]. Breastfeeding links with SGD 3 and other Sustainable Development Goals, including SDG 2; improves nutrition, and SDG 4; supports cognitive development and education.

Effective breastfeeding saves 2 Billion dollars annually in West Africa, with about 412 United States Dollars saved per infant at the household level. In some western countries like the United States of America, the United Kingdom, China, and Brazil, the savings are $312 million, $48 million, $30.3 million, and $6 million, respectively [5].

Fathers knowledgeable about the benefits of breastfeeding are likely to have positive attitudes. A study in India confirmed that 55.4% of optimistic fathers viewed breast milk as the ideal food for their babies, and nearly half agreed that breastfeeding increased mother-to-child bonding [6].

A study among fathers in London found that child/maternal bonding limited fathers' chances of sticking with their partners and that fathers are more likely to bottle-feed their young ones to encourage paternal/maternal bonding [7].

Gender stereotyping linked to Sexism influences fathers' attitudes on breastfeeding in public such that fathers at the extremes discourage their partners from breastfeeding in the open while others allow them to breastfeed flexibly [8].

The culture of male dominance in South Sudan drives communities to view that domestic work related to child care such as cooking, bathing the children, and doing other household work is feminine [9].

In Ghana, men interested in supporting their breastfeeding partners faced community rebuke related to generational divisions of labor and space [10].

2. Methods

2.1. Study Design

The quantitative part of this study used descriptive and cross-sectional methods to accurately collect data using a structured questionnaire of 9 close-ended questions adapted from Abu-Abbas [11]. A nanostructured questionnaire gathered feelings, perceptions, and opinions on male involvement in breastfeeding through key informant interviews and focus group discussions. The participants drawn from the target population were fathers/parents of children less than two years and community leaders, women groups, religious leaders, and individuals of interest.

2.2. Study Setting

The study was conducted in Juba, the capital city of South Sudan, having 54,439 people and a mixed population of foreign nationals from Uganda, Kenya, Ethiopia, and Congo. Adult (men and women) literacy rates stand at 27%, and 66% of the population lives under the poverty line of less than $1 per day, and 15.1% are unemployed [12].

2.3. Sample Size Estimation

Quantitative sample size estimation applied Cochran's formula with a desired level of precision (e) of 0.05, the proportion of the attribute present in the population (p) of 0.74, and a Z score at a 95% confidence interval of 1.96 yielding a sample size of 295 fathers/parents.

Cochran's Formula

$$n_0 = \frac{Z^2 PQ}{e^2}$$

e is the desired level of precision (margin of error)=0.05, p is the (estimated) proportion of the population which has the attribute in question=0.74, q is 1 – p=1-0.74=0.26, Z value found in a Z table (At 95% confidence level, Z value is 1.96).

The qualitative sample was estimated purposively based on practical issues such as time, geographic coverage, and financial resources; the researchers conducted 15 key Informant Interviews (KIIs) and 5 Focus group discussions to investigate community perspectives on male involvement in breastfeeding.

2.4. Data Collection Tool

The first section of the quantitative tool had questions on the demographic characteristics of participants. Section B identified the attitudes of male partners in breastfeeding ranked using a Likert scale of 1-7 scores. A score of 1 indicated strong disagreement, 4 represented a neutral point, and a score of 7 showed strong agreement. During data

analysis, the researchers collapsed these scores to agree, neutral, and disagree.

The qualitative tools used include; Key Informant Interview Guide (KII) and Focus Group Discussion Guide (FGD). These tools had core questions that directly addressed the topics, additional questions or prompts meant to dig further on emerging themes during the conversation, and expansion material meant to reinforce and expand the discussion.

2.5. Data Collection Process

The quantitative participant's selection process was random to offer representativeness with a minimum bias and susceptibility to vested interests. The researchers made appointments with the selected participants for a scheduled interview conducted either at home or the workplace. Of the 295 randomly selected male parents, 275 responded to the call giving a response rate of 93.2%.

The investigators applied the maximum variation technique to select participants of rich composition in age, gender, occupation, education, and other socioeconomic characteristics for in-depth interviewing and focused group discussion. All interviews were in Local Arabic and English for clarity, and all participants had a good understanding of these two languages. The interviewers audio-recorded all conversations using a smartphone and saved them with specific codes for later download.

2.6. Ethical Approval and Consent to Participate

The research proposal was approved by Texila American University through a double review process and approved by the directorate of research and planning, ministry of health, Republic of South Sudan. The participants who volunteered to take part received an information sheet containing a brief introduction to the research and the participant's role. Participants received assurance on confidentiality that personal information is stored securely and locked with a password. Participation is voluntary, and participants had the option to withdraw from the study at any time. Participating or withdrawing from the study would not affect the participant's relationship with the researchers. The participants signed a consent form as a commitment that they had read and understood the purpose of the interview and were willing to participate.

2.7. Data Analysis

Quantitative data were analyzed using SPSS version 28.0. The researchers used the 'Analyze' field in the SPSS window to compute the analysis generating tables and graphs to describe the results. The analyst used descriptive statistics, including frequencies, median (Mdn), and interquartile range (IQR), to characterize the distribution of the variables, and descriptive statistics (Mdn & IQR) to measure central tendency.

The researchers analyzed qualitative data thematically such that all compelling patterns that emerged from the transcripts were coded and double-checked for consistency and errors to enhance rigor. The codes were sorted into themes and subthemes to generate the thematic framework and narrated accordingly.

3. Results

3.1. Sociodemographic Characteristics of Quantitative Sample

Over half, 144 (52.4%) of the respondents reached the tertiary level of education, 77 (28%) had secondary education, and 46 (16.7%) stopped at primary school. 155 (56.4%), 80 (29.1%) had part-time jobs, and 17 (6.2%) did not report any formal employment. About half; 126 (45.8%) worked for 8 hours, 91 (33.1%) worked for less than 8 hours, and only 27 (9.8%) worked for more than 8 hours (Table 1).

3.2. Sociodemographic Characteristics of the Qualitative Sample

Sixty-three participants responded to the call, 15 for key informant interviews, and the rest spread in the five focus group discussions in groups of 5-8 participants. Females accounted for 50 participants, and 13 were males. Those recorded as married were 50, while 13 were single parents. The tertiary level of education was the highest attained with 56 participants, 5 reached the secondary level, and two ended at the primary level. Only 5 participants were residents of the city, 33 lived in small towns around the city, and 25 participants lived in villages.

3.3. Attitudes of Male Partners on Breastfeeding

The results showed that 200 (73%) of the participants were knowledgeable of the benefits of breastfeeding to the mother, signifying a positive attitude. On another positive note, 224 (82%) of the participants did not believe that breastfeeding could negatively affect marriage, and 217 (79%) disagreed that breastfeeding women would lose attractiveness. Additionally, 215 (78%) participants did not support the statement that 'fathers feel left out as the mother breastfeeds.' Equally, 224 (82%) do not believe that breastfeeding is the mother's sole responsibility but rather a shared role.

The perceptions on public breastfeeding were overwhelmingly positive as 247 (90%) of the participants refuted that the mother cannot breastfeed outside the home as well as other 258 (94%) who were comfortable when an unfamiliar woman breastfeeds before them (Table 2).

3.4. Perspectives on Male Involvement in Breastfeeding

The thematic framework presented below (Table 3) shows breastfeeding in public and barriers to male involvement as central themes and common practices, beliefs, cultural barriers, and other barriers as sub-themes.

Table 1. *Sociodemographic characteristics of participants.*

Variable	N	%
Age group		
10-20	1	0.4%
21-30	84	30.5%
31-40	147	53.5%
41-50	41	14.9%
51-60	1	0.4%
>70	1	0.4%
Level of education		
Primary	46	16.7%
Secondary	77	28.0%
Tertiary	144	52.4%
Employment status		
Full time	155	56.4%
Part-time	80	29.1%
Not employed	17	6.2%
Hours of work		
More than eight hours	27	9.8%
Eight hours	126	45.8%
Less than eight hours	91	33.1%

Table 2. *Attitudes of male partners on breastfeeding.*

Variables	Disagree		Neutral		Agree	
	N	%	N	%	N	%
A mother cannot breastfeed her baby and works outside the home	247	90%	2	1%	26	9%
Breastfeeding could negatively affect marital relationship	224	82%	9	3%	33	12%
The woman losses her attractiveness because of breastfeeding	217	79%	6	2%	50	18%
Breastfeeding is beneficial to a mother's health.	56	20%	13	5%	200	73%
Breastfeeding is the mother's responsibility, and the father hasn't any role in it.	224	82%	6	2%	43	16%
Breastfeeding will tie a mother down and interfere too much with her social life.	224	82%	6	2%	43	16%
I am embarrassed when a woman I do not know breastfeeds in front of me.	258	94%	2	1%	14	5%
Fathers feel left out if a mother breastfeeds	215	78%	3	1%	57	21%

Table 3. *Thematic framework for perspectives on male involvement in breastfeeding.*

Perspectives on male involvement in breastfeeding			
Breastfeeding in Public		**Barriers to male involvement**	
Common practices	**Common beliefs**	**Cultural barriers**	**Other barriers**
Move out from people to breastfeed Cover the breast and child's mouth with a cloth while breastfeeding Just breastfeed, no fear	People's eyes make the baby stop breastfeeding Women should not expose their breasts in public,	The woman is smelling Baby will fall Breastfeeding is the role of the woman The woman is b to care for the baby and husband Breast is sexual Seeing baby breastfeeding is inappropriate (Fear breastfeeding before the husband, the husband moves away) Father not to share a room with the breastfeeding mother House smells blood Feelings of shame Head of the family Looking for food, money and responding to sickness Bad advice from other family members Education Dowry Man is useless Lost manhood Some men listen to their parents	Work far away Sleep at the workplace Work stress Lacks money Drinking alcohol Lacks knowledge Short temper Lack of respect from the mother Peer influence Polygamy Playing Ludo/games Education Extramarital affairs (Spending time with another woman in a lodge) The child makes noise in the house, moves away

3.5. Breastfeeding in Public

3.5.1. Common Practices of Breastfeeding in Public

The practices reported for breastfeeding in public were; moving out of people to breastfeed, covering the moth of the child and the breasts with a piece of cloth when breastfeeding among people, and boldly breastfeeding in public. All these practices were regarded as of equal importance as the members in the FGD split halfway in support of the three differing perspectives. Although there was not much variation in opinion among male and female participants, there was consensus among male participants encouraging women to move out and breastfeed the baby if there were spaces to do so privately. While female participants supported openly breastfeeding the baby in public, some reported that existing social and cultural pressure forced them to breastfeed discreetly.

"What I usually do is to move out of people and breastfeed, but if I cannot move out, I will cover my breast and mouth of the baby with a piece of cloth while breastfeeding" (female, 25 years, FGD)

"And also when I am giving the baby bottle milk, I will cover the bottle and mouth of the child so that people will not see" (female, 25 years, FGD)

"Many people do say a lot of issues that women should not breastfeed among people, but I do not believe in what people say, I just breastfeed in the public because the baby wants to breastfeed anytime as the baby depends on milk" (Female, 31 years, FGD)

3.5.2. Common Beliefs on Breastfeeding in Public

The shared beliefs preventing women from breastfeeding in public were that people's eyes would make the baby stop breastfeeding and that exposing the breast in public was inappropriate. While female participants mainly raised these issues, the fathers agreed that such beliefs exist in the community.

"People believe that breastfeeding in public is sometimes not good because people's eyes will make the baby leave the breast" (Male, 33 years, FGD)

"People believe that breastfeeding in public/exposing your breast will make other people feel bad about you" (Male, 30 years, FGD)

3.6. Barriers to male Involvement in Breastfeeding

3.6.1. Cultural Barriers to Male Involvement in Breastfeeding

The cultural barriers aligned with joint cultural forces in the community included patriarchal values, gender role segregation, Sexism, and false beliefs (Figure 1).

(i). Patriarchal Values

Patriarchy relates to the exercise of power by men over women, commonly regarded as male dominance. In South Sudan, men still have control over many aspects of society, including leadership and property ownership. Most men considered it was a duty for the woman to take care of the husband and the baby. The mother should respect the man as the head of the family, making women shy to ask the husband for support during breastfeeding.

"The family used to say that the man is the head of everything at home and is not to do domestic work" (Female, 28 years, KII)

"A woman has to work any kind of work because the man paid dowry and she has to work and payback that money by giving birth to a baby and other work" (Male, 25 years, KII)

"Sometimes, the women are very stubborn, which angers their husbands not to support them during breastfeeding" (Male, 36 years, KII)

(ii). Gender Role Segregation

Segregation of gender roles meant a clear cut between what a woman should do and what a man does in the community. The results revealed these meanings by asserting that the men should be looking for food, money and responding to sickness other than directly assisting the breastfeeding mother. While most male participants supported this view, some women recognized it as an essential contribution but argued that men should do more to help their breastfeeding wives. While some men claimed that they already played a role in breastfeeding that the women cannot do, most women conceded that by traditional Design, they play most of the child care roles considering that they spent more time with the child than the father.

"The role of breastfeeding is only for women, not for men, washing clothes in our society is the role of the woman; once you do it, they say you have failed responsibility" (Male, 36 years, KII)

"The role of the man is to find food for the family and taking care when someone is sick, not that a man should do domestic work" (Male, 35 years)

(iii). Sexism

An exciting feature of Sexism that emerged in the discussion was that men considered the breast as sexual and thought seeing the breast and a mother breastfeeding was inappropriate. Although most mothers disagreed with the association of the breast and sex, some agreed with the men that they sometimes feel shy to expose their breasts before their husbands for similar reasons.

"Breast is sexual, and the sight of the baby feeding at the breast is inappropriate" (Male, 41 years, KII)

"When I gave birth to my first baby, I was having that fear of breastfeeding my baby when he is looking at me, and that makes him not to be inside when I am breastfeeding" (female, 27 years, KII)

(iv). False Beliefs

Several false cultural beliefs keep the male partner away from the mother, such that some men thought a breastfeeding woman smells milk and that the house smells blood, especially in the first week of delivery. On the other hand, women said men were inexperienced in carrying the baby and feared it would fall from their hands.

"A man is not supposed to be near a breastfeeding woman because of the belief that she smells" (Male 30 years, KII)

"It is not encouraged for the father to carry the baby in some cultures because of the belief that the baby will fall from the man's hands" (female, 36 years, FGD)

"There is a belief in my culture that a man should not sleep in the same room with a woman that has given birth because the house smells blood" (Male, 30 years, FGD)

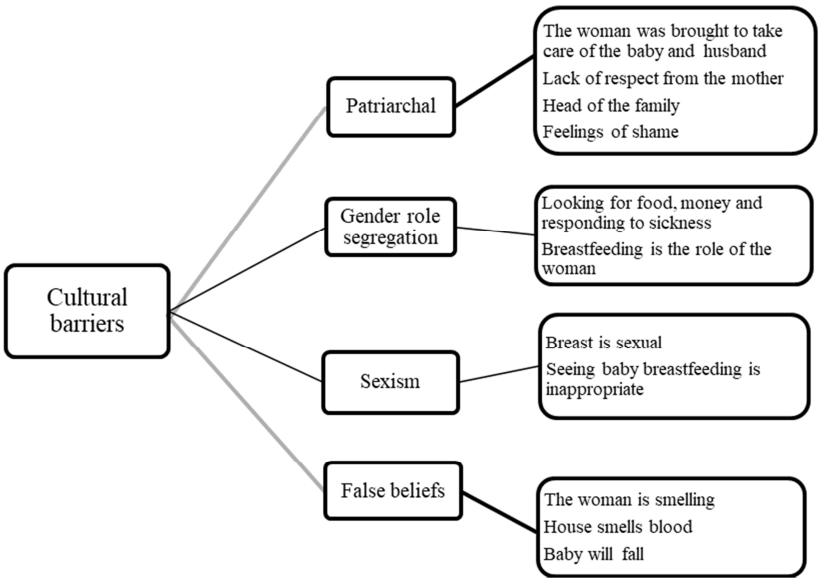

Figure 1. *Cultural barriers to male involvement in breastfeeding.*

3.6.2. Other Barriers to Male Involvement in Breastfeeding

The other barriers are factors that impede male contribution but are not part of everyday cultural practices, such as work-related factors, social issues, economic factors, and personal limitations.

(i). Work-related Challenges

The work-related barriers featured prominently among all participants and were considered necessary. The issue discussed relates to working in the field, sleeping at the workplace, and work stress. Many women said that some fathers work far from home and only visit the wife once in a while. On the other hand, the men presented that the nature of their work limits their contact time with the mother and child. For example, they worked a night shift, especially for guards, and did boda-boda work. Boda-boda cyclists are known to return home late and tired that they collapse on the bed.

"My husband works far away in the field, making me alone in the house that's why my husband does not participate in the breastfeeding process" (Female, 29 years, FGD)

"Some men are doing work like boda-boda; they wake up around 5 O'clock and return at 10 PM when they are tired, they cannot help even during the night time" (Female, 26 years, FGD)

(ii). Social Factors

The social factors relate to the father's social lifestyle, such as consuming alcohol. Alcohol reduces the meantime the mother and baby can interact with the father. It also increases the fear that the father may harm the baby.

"Some men spend most of the time-consuming alcohol, and when he returns home drunk, he ends up fighting the breastfeeding wife" (Female, 23 years, KII)

"Sometimes, the man is staying away, playing games and drinking alcohol instead of helping their breastfeeding wife" (female, 30 years, KII)

(iii). Economic Problems

The husband's capacity to provide for the family is low if the husband lacks financial resources to contribute to breastfeeding. The participants noted that the current economic situation in South Sudan had affected most men.

"The man lacks responsibility because he does not have money to support the breastfeeding wife" (Female, 35 years, KII)

"The husband may not support the wife because he has no money and is struggling hard to get money and has no time" (Male, 39 years, KII)

(iv). Personal Issues

The personal factors include individual characters that can affect the father's relationship with the mother and child. It was clear that some fathers lack knowledge on breastfeeding and their role to support the mother and baby. The participants also noted that some male partners have short temperaments that affect their breastfeeding mother's communication. Most mothers emphasized that some fathers listen to their peers who advise them negatively, while some pay more attention to their families than their wives.

"Sometimes the man is moving with bad friends who do not have wives and give him wrong advice not help the breastfeeding wife at home" (Female, 38 years, KII)

"My husband lacks knowledge of the importance of breastfeeding, so he cannot participate during the breastfeeding process" (female, 31 years, KII)

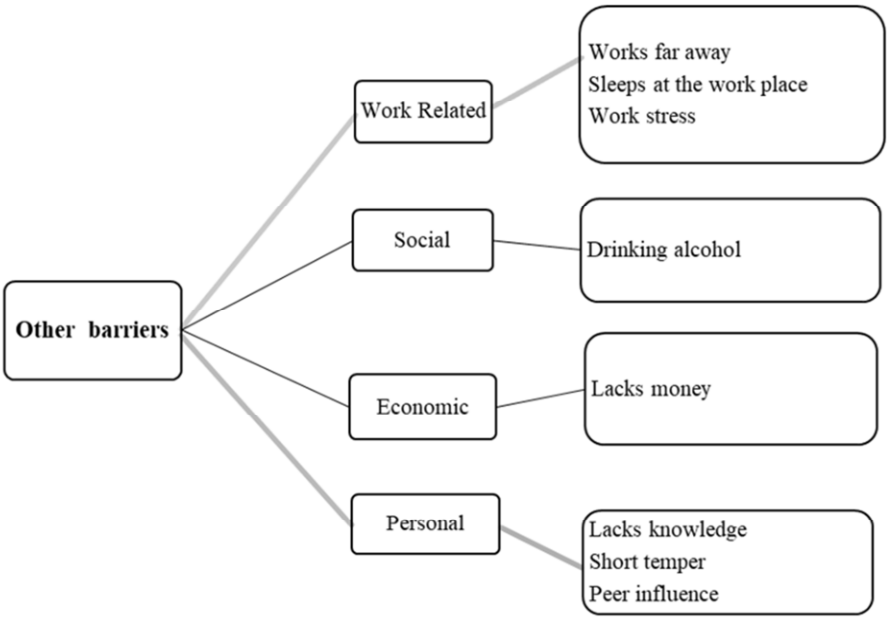

Figure 2. *Other barriers to male involvement in breastfeeding.*

4. Discussion

The optimistic view of breastfeeding on marriage in 82% of fathers is suggestive that male partners do not associate breastfeeding with marital problems. Similarly, 82% of the participants do not believe that breastfeeding ties the mother down or interferes with her social life. Another 78% disagreed that fathers feel left out if the mother breastfeeds. These discoveries are consistent with the findings that breastfeeding was not associated with the fathers' intimate relationship quality [13].

Views on the benefits of breastfeeding to the mother's wellbeing/shape showed that 73% of the participants agreed that breastfeeding benefits the mother's health, and 79% disagreed that the woman loses her attractiveness. These results advise that fathers attach psychological and physical values of breastfeeding to the mother. With lacking data in South Sudan, these results still reveal that fathers know the benefits of breastfeeding.

Although standard literature suggests that male partners negatively perceive mothers breastfeeding in public or open spaces, the results demonstrated a different view that 90% agreed to allow their wives to breastfeed outside the home premises, and 94% did not buy into the statement that fathers would be embarrassed when a woman they do not know breastfeeds before them. These findings agree with the global view on public breastfeeding in most African countries, including neighboring Kenya and other countries such as Liberia, Morocco, Nigeria, Rwanda, Somalia, Uganda, and Zambia, where women breastfeed on demand even in public [14].

Given gender roles segregation in breastfeeding as a duty of women, the findings present a cooperative family environment where 82% of fathers agreed to share child care roles. The results show that the participants disagreed with the statement that breastfeeding is the mother's responsibility which supports the understanding that the mother can breastfeed effectively through the support of her closest associates. The father's cooperation is pivotal in realizing universal breastfeeding outcomes, particularly in working as a team to solve breastfeeding problems [15].

Qualitative discussions on breastfeeding in Public or open spaces showed that mothers would go to extraordinary lengths to allow their babies to breastfeed on demand even if others feel bad about it. Some women, however, opted to cover their breasts and baby's mouth with a piece of cloth. Although there is no data to compare with these findings in South Sudan, breastfeeding in public as common practice among mothers in Juba, South Sudan, indicates a supportive environment. Again, caution in generalizing this data is needed as cultures vary significantly across geographic and tribal settings in this country.

On barriers, the discussions revealed interesting views that support the cultural and environmental characteristics of the study setting. Gender stereotypes in child care and domestic work are revelations of false beliefs indicating that fathers have some social sensitivity toward women who have given birth to a child and may explain why some cultures discourage the father from sleeping in the same room with the breastfeeding mother for two years. Other barriers such as work-related stress, nature of work, and distance from home featured prominently as challenges to male involvement in breastfeeding. It also came out clearly that social factors such as drinking alcohol and playing games were notable barriers.

Lack of money and personal factors such as lack of knowledge, temperament, and peer influences negatively drive paternal attitudes in child care and support for the mother. These findings are consistent with revelations in Kenya that work, food security, living arrangements, and alcoholism affect breastfeeding in urban settings [16].

5. Conclusion

Much as this study documented an overall positive attitude towards male involvement in breastfeeding, it also presented numerous barriers to male participation in the process, such as viewing the breast as sexual and exposing it in public as inappropriate. The breastfeeding woman smells milk and blood. It further revealed other barriers, including work-related stress, distance from home, drinking alcohol and playing games, lack of money, personal temperament, and peer influence.

These findings are consistent with common traditional beliefs and practices affirming the existence of multiple barriers to male involvement. It is also important to note that the urban setting of the study may contribute to positivity, as observed in the quantitative results. Such an attitude could be due to knowledge and exposure, which may differ in a rural setting.

6. Limitations of This Study

This study took place in Juba, the capital city, limited in its geographic coverage. Readers may therefore not apply the exact value of these results to a rural setting.

7. Recommendations

The findings of this study derived the following recommendations:

1) The Ministry of Health would consider including strategies for male involvement in infant and young child feeding promotion.
2) Need to design context-specific models aimed at dispelling misinformation about male participation in breastfeeding and expanding on standard supportive practices.

Acknowledgements

We thank Dr. Ebenezer Obi Daniel for reviewing the project and supervision of data collection and analysis. We also thank Dr. Zecho Gatkek Gatka-al and Wani Silas Lubang for reviewing the tools and providing honest advice. Great appreciation goes to the directorate of planning and research for granting ethical approval. We finally thank the participants for voluntarily partaking in the scheduled interviews.

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