EdinBurg Peer-Reviewed Journals and Books Publishers
Journal of Medicine, Nursing and Public Health
Vol. 6||Issue 5||pp 39-57||May||2026
Email: info@edinburgjournals.org||ISSN: 3105-3394

Male Partner-Related Factors in Spouse's Uptake of Breast Health Care Services in Siaya County, Kenya

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Accepted: 07 May 2026 || Published: 25 May 2026

Abstract

This study assessed male partners' knowledge, attitudes, practices, and socio-cultural factors influencing breast health care practices in Bondo Sub-County, Siaya County. A descriptive cross-sectional design was used. Male and female partners were systematically sampled from purposively selected households. Independent-samples t-tests were used to compare outcomes between males whose partners had been screened and those whose partners had not. Significant differences were observed between males whose partners had been screened and those whose partners had not been screened in knowledge of BSE frequency ($t = -2.443$, $p = 0.016$), responsibility to support a spouse diagnosed with breast cancer ($t = -2.299$, $p = 0.023$), clinical breast examination uptake ($t = -5.083$, $p = 0.000$), and mammogram uptake ($t = -2.096$, $p = 0.038$). Focus group discussions highlighted barriers such as fear, poverty, cultural beliefs, and inadequate screening resources. The findings emphasize the need for targeted breast health education and community outreach programs that actively involve men, address socio-cultural barriers, and strengthen facility capacity by improving staffing and the availability of screening equipment.

Keywords: *Knowledge, attitudes, practices of breast health care, social-cultural factors, Uptake of Breast Health Care Services, Siaya County*

How to Cite: Maria, S. S., Mwanzo, I., & Wanyoro, A. (2026). Male Partner-Related Factors in Spouse's Uptake of Breast Health Care Services in Siaya County, Kenya. *Journal of Medicine, Nursing and Public Health, 6*(5), 39-57.

1. Introduction

Breast cancer is a global health concern among women and is the primary cause of mortality (WHO, 2020). Breast cancer is prevalent in technologically developed nations. As of now, there is a change: emerging nations account for half of all instances (58%) of fatalities (WHO, 2020). The middle and lower-income nations have redirected the burden of breast cancer to women of active reproductive health (between 15-49 years). Statistics reveal that the risk of breast cancer among women under the age of 50 has doubled (WHO, 202O). High mortality rates of breast cancer can be attributed to the late presentation of the patients. Increasing access to breast health care and breast cancer knowledge in rural or marginalized communities is critical in enhancing breast cancer outcomes. There is a need to understand the local

impediments to early detection, timely diagnosis, and adequate treatment to curb the late presentation of disease (Sayed et al., 2019). Most women seek breast health care services when their male partners are present and supportive (Gan et al., 2018).

Cancer of the Breast in Kenya is among the leading cancers in incidence, with approximately 5,985 cases; this accounts for 12.5% of all new cancer cases (Anyira, 2020). Breast cancer is caused by aberrant cell proliferation in the breast, which can lead to tumor formation. The typical symptoms include: a new mass, lump with irregular edges, or a hard mass, which may be painless (American Cancer Society, 2019).

The rise in breast cancer prevalence in the country indicates that control strategies are still insufficient. The barriers include inadequate knowledge, poor practices, attitudes, and limited access to and participation in screening programs among the population at risk (Kohler et al., 2016).

The perception of the role of gender in health has underscored the need to develop innovative solutions to improve access to and engagement with male partners in health. Despite the role of men being significant in family decision-making in most rural areas, a lack of sufficient data exists about their role in making a spouse adopt breast health practices. There is limited information on male partner knowledge, practices, and factors affecting socio-cultural dynamics, as well as factors that may facilitate breast health practices in the community in Siaya County.

In Kenya, 23% of female cancer cases are breast cancer. The majority of patients report the disease when it is in its advanced stages, leading to a high mortality rate (WHO, 2018). Kenya does not have a central cancer surveillance system; it is assumed that out of 6000 women diagnosed with breast cancer, half of them die, although breast cancer can be prevented by early cancer screening and treatment (Globocan, 2018). Based on the evidence presented by the health and demographic system prepared by Phillips-Howard et al. (2017), in Siaya County, female breast neoplasms are very high. The average age of death is 41 years, which is relatively low. The most important socio-cultural barrier in breast cancer early detection and screening in most rural communities is the fact that male partners are central decision-makers in the family, including controlling decisions and actions of women. Despite their value as main decision makers, studies show male partners lack adequate knowledge of breast health care, impacting support (Al-Mus et al., 2019). The study aimed to assess the knowledge, attitudes, and practices regarding breast health care among male partners and spouses, and to identify the social-cultural factors influencing these in Bondo Sub-County, Siaya County, Kenya.

2. Methods

The study adopted an analytical cross-sectional design. All the male household heads in Bondo Sub-County, Siaya County, and their spouses were targeted in this study. The target population for this study included all male heads of households in Bondo Sub-County, Siaya County, and their spouses. This population consisted of screened and unscreened couples living in the study area during the research period. The sample population was purposively selected from Bondo Sub-County. The Study used a stratified sampling method to proportionally distribute households across the six wards in Bondo Sub-County. Data was collected using questionnaires, FGD, and interview guides.

Statistical Package for Social Sciences (SPSS) version 25 was used to code and analyze the quantitative data. Descriptive statistics, including means, standard deviations, frequencies, and percentages, were used to analyze the data. Pearson's chi-square test was used to identify possible associations between categorical variables (independent and dependent) in the study, for example, participants' characteristics and breast healthcare practices. An independent-samples t-test was used to assess a possible statistical difference between males whose partners had not been screened and those whose partners had been screened in breast health care practices. Qualitative data from FGDs were transcribed, and the researchers developed a coding system through an iterative process. Themes were identified and verified by rechecking the validity of the understanding against both the transcripts and the codes, to ensure consistency with previously arrived-at hypotheses. Thematic analysis was also applied to qualitative data from KIIs. The data were transcribed, coded, analyzed, interpreted, and verified. The coding process involved identifying keywords that helped to categorize text and develop themes.

3. Results

3.1 Social Demographic Characteristics of the Study Participants

Table 1 shows sociodemographic data of the study respondents. There were 152 eligible male and 152 eligible female participants. Nearly half of the male participants (n=68, 44.7 %) were older than 30 years, but only a few (n=4, 2.6%) were aged between 15 and 20 years. More than half of the females (n=81, 53.3%) were between 26 and 30 years old, and just a small proportion (n=4, 2.6%) were between 15 and 20 years old.

The findings also revealed that most participants were married. 19.1 % of males and 21.6% of females had separated. Further, the results indicated that 35.6% of males and 36.2% of females had secondary education. The majority of participants (37.5% males and 44.1% females) were Catholics, while the minority (12.5% males and 7.9% females) were Muslims. Additionally, the results indicated that 36.8% of males and 40.1% of females were businesspeople. The majority (n=55, 36.1%) of male participants had a monthly income of between Ksh. 31,000 – 50,000, while the majority (n=62, 40.8%) of women earned between Ksh. 10,000-30000 on a monthly basis. On average, the minority of participants had a monthly income of less than Ksh. 10,000.

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Table 1: Participants' Socio-Demographic Information

Category		Males		Females	
		Frequency	Percentage %	Frequency	Percentage %
Age-group	15-20 Years	4	2.6	4	2.6
	21-25 Years	23	15.2	26	17.1
	26-30 Years	57	37.5	81	53.3
	>30 Years	68	44.7	41	27.0
	Total	**152**	**100**	**152**	**100**
Marital Status	Married	109	71.7	107	70.4
	Separated	29	19.1	33	21.6
	Other	14	9.2	12	8.0
	Total	**152**	**100**	**152**	**100**
Academic Status	Non-formal education	11	7.2	14	9.2
	Primary	44	28.9	50	32.9
	Secondary	54	35.6	55	36.2
	Tertiary	43	28.3	33	21.7
	Total	**152**	**100**	**152**	**100**
Religious Beliefs	Protestant	50	32.9	54	35.5
	Catholics	57	37.5	67	44.1
	Traditional	26	17.1	19	12.5
	Islam	19	12.5	12	7.9
	Total	**152**	**100**	**152**	**100**
Occupation	Business person	56	36.8	61	40.1
	Crafts	34	22.4	30	19.7
	Fisherperson	16	10.5	31	20.5
	Farmer	46	30.3	30	19.7
	Total	**152**	**100**	**152**	**100**
Income Level in Ksh.	<10 000	13	8.6	22	14.5
	10 000-30 000	53	34.9	62	40.8
	31 000- 50 000	55	36.1	57	37.5
	>50 000	31	20.4	11	7.2
	Total	**152**	**100**	**152**	**100**

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3.2 Update of Breast Health Care Practices

3.2.1 Overall Screening Prevalence

The study results revealed that the majority (n=189, 62%) of spouses were never screened, whereas only 38% (n=115) were screened. The results are summarized in Figure 1.

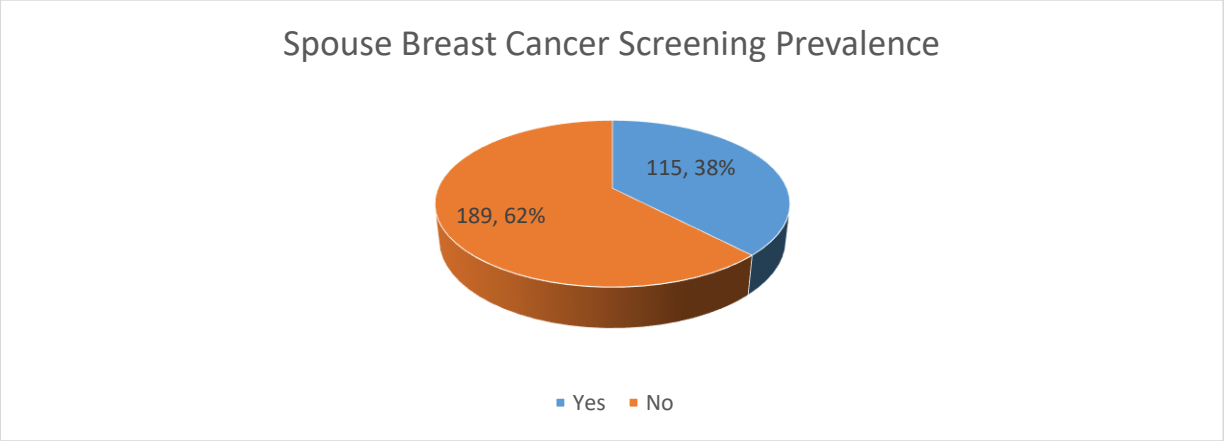

Figure 1: Overall Screening Prevalence

3.1.2 Breast Screening Prevalence in Women

The results in Figure 2 show that 25% (n = 38) of women in the sample regularly practice breast self-examination (BSE). 28.3% (n = 43) of participants have undergone clinical breast examination (CBE). The majority (n = 114, 75%) of women do not regularly perform BSE, and 71.7% (n = 109) have not had a CBE.

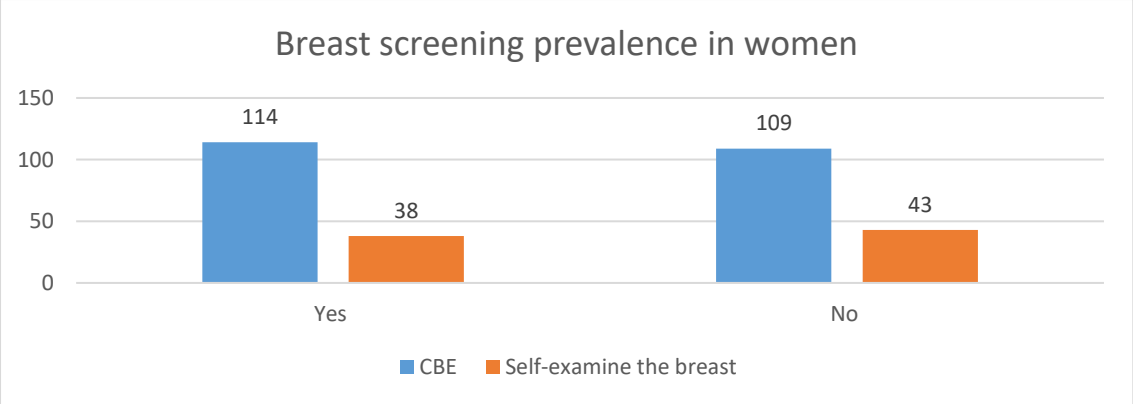

Figure 2: Breast screening prevalence in women

3.3 Screening Prevalence for Male Partners

According to Figure 3, the study results showed that 52% (n=109) of male partners reported that their spouses were not screened, while 48% reported that their spouses were screened.

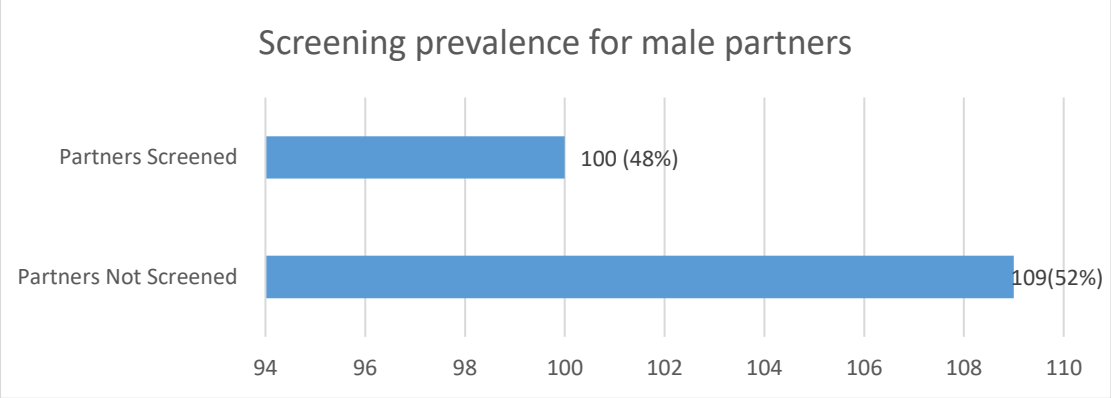

Figure 3: Screening prevalence for male partners

3.3 Knowledge of Breast Healthcare Practices

The study analyzed the differences in knowledge of breast healthcare practices between males whose partners had been screened and not screened. On average, a higher proportion of males whose partners had not been screened (M=1.25, SD=0.434) reported having heard about BSE than men whose partners had been screened (M=1.16, SD=0.374). However, this variation was not statistically significant (t-stat = 1.129, p = 0.261). Men whose partners had been screened also reported having more knowledge about the stage (20 years) when women should begin BSE, compared to men whose partners had not been screened. Similarly, the difference in knowledge between the two groups was not statistically significant (t-stat = -1.295, p = 0.197). Additionally, Men whose partners had not been screened showed greater knowledge of how frequently BSE should be performed than men whose partners had been screened, and the difference was statistically significant (t-stat = -2.443, p = 0.016). The results are summarized in Table 2.

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Table 2: Male Knowledge of Breast Health Practices by Partner Screening Status

Statement	Partners not Screened (N=109)		Partners Screened (N=43)		t	df	*p*
	Mean	Std.	Mean	Std.			
Heard of breast-self-examination	1.25	0.434	1.16	0.374	1.129	150	0.261
Stage women should begin BSE	2.92	1.038	3.16	1.090	-1.295	150	0.197
How frequently should BSE be done	3.29	0.820	3.63	0.578	-2.443	150	0.016
Stage women should begin CBE	3.39	0.903	3.28	1.161	0.653	150	0.515
Ever_heard of mammograms	1.44	0.499	1.35	0.482	1.029	150	0.305
stage_women should begin_mammograms	3.61	0.757	3.60	0.728	0.074	150	0.941

* Independent sample t-test used to determine statistical significance at $p < 0.05$

3.4 Participants' Attitude towards Breast Health Care

The study analyzed differences in attitudes towards breast health care between men whose partners had been screened and those whose partners had not. The results found that breast healthcare screening was essential for both groups (partners not screened (M=3.94, SD=0.281) and partners screened (M=3.91, SD=0.294)). However, the variation in results was statistically insignificant (t-stat = 0.561, p = 0.575). Besides, males whose partners had been screened showed more support towards supporting their partners if diagnosed with breast cancer compared to males whose partners had not been screened. Similarly, this finding was statistically insignificant ($p>0.05$). Contrary to this, the results revealed a statistically significant difference in offering support to partners after being diagnosed with breast cancer between males whose partners had been screened and those whose partners had not been screened (t-stat=-2.299, p=0.023). Overall, the two groups show a similar attitude towards breast health care ($p > 0.05$). The results are summarized in Table 3.

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Table 3: Comparison of attitude towards breast health care between Males whose partners received and those who had not received screening

Statement	Partners not screened (N = 109)		Partners screened (N=43)				
	Mean	Std.	Mean	Std.	t	df	*p*
Breast health care screening is essential	3.94	0.281	3.91	0.294	0.561	150	0.575
I would assist my partner in doing a self-breast exam at home	3.97	0.213	3.98	0.152	-0.120	150	0.905
I would encourage my spouse or a female relative to go for a breast screening	3.97	0.213	4.00	0.012	-0.844	150	0.400
I would support my spouse by paying for the breast screening	3.93	0.352	4.00	0.076	-1.363	150	0.175
I would tell my family or religious leaders if I am or my spouse is diagnosed with breast cancer	3.86	0.461	3.67	0.747	1.877	150	0.062
I would be embarrassed to tell other people if I am/my spouse is diagnosed with breast cancer	2.87	1.341	3.02	1.205	-0.646	150	0.519
It would be my responsibility to look after/support my spouse if she were diagnosed with breast cancer	1.58	1.021	2.02	1.205	-2.299	150	0.023
I would leave or take my spouse back to her parents if I found out she has been living with breast cancer.	1.30	0.500	1.23	0.571	0.421	150	0.455

* Independent t-test used to determine statistical significance at $p < 0.05$

3.5 Practice of Breast Healthcare Services

Further, the study compared breast healthcare practices for screened and unscreened male partners. The findings showed that male partners whose spouses were not screened (M=1.25, SD=0.434) were more likely to allow their spouse to seek breast health care services at a facility compared to those whose partners had not been screened (M=1.14, SD=0.351). However, this variation was statistically insignificant (t-stat = 1.458, p = 0.147). Moreover, males whose partners had not been screened (M=2.17, SD=0.692) reported that their partners regularly practiced breast self-examination compared to those whose partners had been screened (M=2.07, SD=0.768). Similarly, this variation was statistically insignificant (t-stat = 0.813, p = 0.417). On average, a higher proportion of males whose partners had not been screened (M=2.0, SD=0.0) reported that their spouses did CBE regularly compared to those whose partners had been screened (M=1.56, SD=0.548). On the contrary, this variation was statistically significant ($p< 0.05$). Additionally, the independent sample t-test demonstrated a statistically significant difference between males whose partners had not been screened and

those whose partners had been screened in relation to their spouse's practice of breast healthcare services, depending on whether their partners had undergone a mammogram ($p<0.05$). The results are summarized in Table 4.

Table 4: Comparison of Breast Healthcare Practices between Screened and Unscreened Male Partners

	Partners not screened (N = 109)		Partners screened (N=43)				
Statement	Mean	Std.	Mean	Std.	*t*	df	*P*
Would you allow your spouse to seek breast health care services at a facility	1.25	0.434	1.14	0.351	1.458	150	0.147
Do you or your spouse practice breast self-examination regularly	2.17	0.692	2.07	0.768	0.813	150	0.417
How frequently does she/do you self-examine the breast	2.23	0.715	2.05	0.785	1.380	150	0.170
Have you done/spouse done a CBE	2.0	0.0	1.56	0.548	-5.083	150	0.000
How frequent do you/has she had a CBE	4.0	0.0	3.09	1.342	0.852	150	0.395
Have you/spouse done a mammogram	2.87	0.715	1.81	0.824	-2.096	150	0.038
How frequently do you/spouse do a mammogram	1.26	0.630	1.19	0.732	0.596	150	0.552

* Independent sample t-test used to determine statistical significance at $p < 0.05$

Results from the FGDs indicated a lack of involvement of male partners and support as some of the concerns for effective breast health screening and treatment in the community. FGDs recommended greater involvement of men in community barazas and outreach programs. For example, in one FGD stated:

FGD D:

> *Use a man as a strong ambassador for health to champion breast health education and encourage men to support their partners. Develop common ground and a supportive environment for women and men, so men feel free and comfortable bringing their partners for breast health care services* (*FGD _Community Leaders_ D).*

Results from FGD also revealed several barriers to breast cancer screening and treatment. Some of the raised concerns were a lack of qualified and trained personnel, a lack of equipment such as breast screening tools in dispensaries, women's fear, poverty, cultural beliefs such as witchcraft, and beliefs in traditional healers or herbalists. For example:

FGD E:

> *Young women are not given proper information and teaching about breast cancer including breast self-examination. The community is also not receiving information about breast cancer at the community level and there is also a fear of cancer screening* (*FGD _Community Leaders_ E).*

3.6 Social-Cultural Factors Influencing Breast Health Care

The study examined results on social and cultural factors influencing breast health care practices, as indicated by males whose partners had been screened and those whose partners had not. The results found that spouses in both groups (partners screened and partners not screened) informed their partners about their health concerns. Besides, breast health service decisions for spouses whose partners were screened (M=3.72, SD=0.976) were highly influenced by their religion compared to those whose partners were not screened (M=3.64, SD=1.095). However, the difference between the two groups was not statistically significant ($p>0.05$). Further, partners whose spouses were screened (M=1.33, SD=0.472) reported a lower existence of socio-cultural factors in the community that influenced access to breast healthcare services than those whose partners were not screened (M=1.42, SD=0.499). This variation was found to be statistically insignificant ($p>0.05$). A high proportion of spouses whose partners were not screened (M=1.1, SD=0.217) played a significant role in influencing access to breast healthcare services at the hospital, compared with respondents whose partners were screened (M=1.07, SD=0.192). Likewise, this variation was statistically insignificant ($p>0.05$). Overall, no statistically significant differences between the two cohorts in social and cultural factors related to breast health care practices. The results are summarized in Table 5.

Table 5: Sociocultural Factors in Spousal Breast Screening

	Partners not screened (N = 109)		Partners screened (N=43)				
Statement	Mean	Std.	Mean	Std.	T	df	*p*
If your spouse has a health concern, does she always tell you the details	1.20	0.403	1.26	0.441	-0.724	150	0.470
Do you normally/your spouse enquire why you visited the hospital	1.24	0.428	1.30	0.465	-0.807	150	0.421
Are there social and cultural factors in this community that affects access to breast health care services	1.33	0.472	1.42	0.499	-1.022	150	0.309
Religion assists you when making breast health service decisions	3.72	0.976	3.64	1.095	1.173	150	0.243
Is there a role you play in influencing access to breast healthcare services at the hospital?	1.1	0.217	1.07	0.192	0.822	149	0.412
If yes what role?	3.35	0.940	3.21	1.013	1.111	150	0.518
Where would you go/take your spouse if discovered with breast swelling lump?	0.97	0.164	1.00	.000	0.796	150	0.998

* Independent sample t-test used to determine statistical significance at $p < 0.05$

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Vol. 6||Issue 5||pp 39-57||May||2026
Email: info@edinburgjournals.org||ISSN: 3105-3394

3.7 Perceived Factors Influencing Breast Health Practices

The study analyzed the association between factors affecting breast healthcare practices for both screened and unscreened partners. There were significant associations in some factors affecting breast health practices between males whose partners had been screened and those whose partners had not been screened. For instance, the results found a significant association between males whose partners had not been screened and those whose partners had been screened regarding the presence of factors affecting breast health practices in the community ($X^2 = 7.303$, $p = 0.026$). 79.8% of males whose partners had not been screened affirming the presence of these factors compared to 69.8% of males whose partners had been screened. Besides, 80.7% of males whose partners had not been screened said they would allow their spouse to be examined by a male doctor, compared to 55.8% of males whose partners had been screened. The association between the two groups regarding this specific factor was statistically significant ($X2 = 9.875$, $p = 0.002$). Further, the study analyzed the association between males whose partners had not been screened and those whose partners had been screened in relation to whether the respondents encouraged their spouses to seek breast healthcare by providing transport support. However, this association was statistically insignificant ($p>0.05$). The results are summarized in 6.

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Email: info@edinburgjournals.org||ISSN: 3105-3394

Table 6: Perceived Factors Influencing Spousal Breast Screening

Statement		Partners not screened (N = 109)		Partners screened (N=43)				
		N	%	N	%	X^2	Df	p
Are there factors that affect breast health practice in your community	Yes	87	79.8	30	69.8	7.303	2	0.026
	No	22	20.2	13	30.2			
Is the uptake of breast health care practices in this community a major problem	Yes	72	66.1	27	62.8	2.593	2	0.273
	No	37	33.9	16	37.2			
Are there breast cancer screening outreaches or services available in this community?	Yes	40	36.7	15	34.9	0.175	2	0.643
	No	69	63.3	28	65.1			
Would you allow/spouse to be examined by a healthcare worker	Yes	82	75.2	34	79.1	0.252	2	0.616
	No	27	24.8	9	20.9			
Would you allow/spouse to be examined by a male doctor	Yes	88	80.7	24	55.8	9.875	2	0.002
	No	21	19.3	19	44.2			
Would you allow/spouse to be examined by a male traditional healer	Yes	56	51.4	19	44.2	0.638	2	0.425
	No	53	68.8	24	55.8			
Would you /has your spouse encouraged you to seek breast healthcare by providing transport support?	Yes	82	75.2	27	62.8	4.342	2	0.114
	No	27	24.8	15	34.9			
Who offers them and how often are they done?	CHVs once a year	95	87.2	29	67.4	6.321	2	0.015
	Health care workers	13	11.9	13	30.3			
	MOH	1	0.9	1	2.3			

* Pearson's chi-square is used to determine statistical significance at $p < 0.05$

3.8 Male Role in Their Spouse's Uptake of Breast Health Care Practices

The study explored the role of male partners in their spouses' uptake of breast health care practices for males whose partners had been screened and those whose partners had not been screened. In this regard, the study investigated whether there was a significant association between males whose partners had been screened and those whose partners had not been screened regarding financial support for accessing breast healthcare services. There was no statistically significant association between these two groups regarding financial support for access to breast healthcare services (X2 = 2.563, p = 0.70). Further, the study analyzed the

association between males whose partners had been screened and those whose partners had not been screened regarding whether the males were directly involved in decision-making about where to access breast screening for their spouses. Based on the results, there is a significant association between the two groups for this specific factor ($\chi 2 = 4.776$, $p = 0.029$). However, both males whose partners had not been screened and those whose partners had been screened assisted their partners in performing a self-breast examination. The results are summarized in Table 7.

Table 7: Male Partner Roles in Spouse's Breast Health Screening

Statement		Partners not screened (N = 109)		Partners screened (N=43)				
		Frequency	%	Frequency	%	X^2	Df	*p*
Do you provide your spouse with financial support to access breast health care services	Yes	107	98.2	40	93.0	2.563	2	0.70
	No	2	1.8	3	7.0			
Do you accompany your spouse to access breast health care services at the facility	Yes	93	85.3	37	86.0	0.013	2	0.909
	No	16	14.7	6	14.0			
Are you directly involved in decision-making on place to access breast screening for your spouse	Yes	91	83.5	29	67.4	4.776	2	0.029
	No	18	16.5	14	32.6			
Do you assist your spouse in doing a self-breast examination	Yes	82	75.2	32	74.4	0.011	2	0.917
	No	27	24.8	11	25.6			
Do you remind your spouse of the screening days	Yes	77	70.6	27	62.8	0.880	2	0.348
	No	32	29.4	16	37.2			

* Pearson Chi square used to determine statistical significance at $p < 0.05$

4. Discussion

4.1 Breast Screening prevalence

Breast screening prevalence in this study exceeded 25% for both self-examination and clinical breast examination approaches. This prevalence is significantly higher than the approximately 5% screening rate reported by Kisuya et al. (2015) for breast cancer in Kenya. The disparity between these findings can be attributed to several factors. First, the geographical scope differs

substantially: the current study focuses solely on Bondo Sub-County, whereas Kisuya et al. examined national-level data. Second, discrepancies in data collection methodology and in the definition of screening procedures may contribute to this discrepancy. It is important to note that presenting these results as a range, without disaggregating the data by screening method, limits the interpretation of the findings.

4.2 Level of knowledge of Breast Healthcare Practices

The findings indicated that while participants had heard about breast healthcare, they had limited knowledge of the specifics of breast health practice, such as when women should start breast self-examination (BSE), how often it should be done, and how often CBE should be performed. Sayed et al. (2019) found that men and women from a rural community in coastal Kenya possessed low knowledge in breast health care. The inadequate knowledge on breast health care suggests that although people, including male partners in Kenya, are aware of breast health care practices such as BSE, they lack the essential knowledge needed to implement or uphold the best breast health care practices.

The participants had insufficient knowledge of the recommended practice about when women should begin mammograms. It was also noted that both male and female participants displayed a similar pattern in knowledge of breast health practices. Other studies have reported consistent findings that the majority of males and females have heard about breast healthcare practices such as BSE, mammography, and CBE but have inadequate knowledge of the best ways to implement these practices (Abu-Shammala & Abed, 2015; Sama et al., 2017). The evidence from this study suggests a gap in awareness of breast health care practices and in understanding the information needed to implement them, among both male and female partners in Siaya County, Kenya.

Males whose partners had been screened had higher knowledge of how frequently women should perform BSE than males whose partners had not been screened for CBE. This was linked to possible interest towards breast healthcare practices of males whose partners had been screened, gained from their partners' engagement in breast healthcare practices compared to their counterparts. Busakhala et al. (2016) established that most people (men and women) who attend and practice breast screening in Western Kenya are often aware of breast cancer and its consequences. Therefore, males whose partners had been screened would demonstrate a higher knowledge of BSE.

Some of the notable symptoms of breast cancer identified by participants were a painless lump, pain in the breast, a change in the texture of the breast, and nipple discharge. Similar findings were made with male partners from Saudi Arabia, where they reported a change in nipple size, nipple discharge, and pain in the breast as common symptoms of breast cancer (Al-Musa et al., 2019). This study documents that both partners are aware of some of the primary signs and symptoms of breast cancer. The study established that some of the reported risk factors by male and female participants were tobacco products, use of alcohol/traditional brew, and use of oral contraceptives. The findings further identified that men and women in Siaya County have good knowledge of the risk factors of breast cancer, which can be used to amplify breast health care practice and education in the community.

Evidence from key informants supports that male partners and healthcare workers were aware of the risk factors of breast cancer. The evidence from the present study indicated that the rural community is knowledgeable of the signs and risks of breast cancer. However, these findings contradict an earlier study conducted with a rural community in coastal Kenya that reported poor knowledge of signs of breast cancer (Sayed et al., 2019). The socio-cultural variations, including religion, between communities in Western and coastal Kenya were suggested to account for the difference in knowledge of breast cancer. Community leaders and religion play a key role in the perception of breast cancer, with some communities viewing reproductive health as a women's agenda (Onchong'a *et al.,* 2018).

4.3 Participants' Attitude Towards Breast Health Care

Males whose partners had been screened for clinical breast examination demonstrated a higher positive attitude towards supporting their spouse if diagnosed with breast cancer compared to males whose partners had not been screened. Although there was limited literature for comparative discussion, these findings suggest that males whose partners had been screened may be motivated to support their spouse in case of breast cancer illness, given their interactions with their partners regarding breast healthcare matters.

The findings indicated that both males whose partners had been screened and those whose partners had not been screened considered breast healthcare essential. The positive attitude can be explained by participants' knowledge of breast healthcare practices such as breast cancer risk factors, signs, and probably the dangers associated with the illness. Knowledge of breast health care is fundamental to promoting not only women's best breast health care practices but also men's support for their partners (Ameade *et al.,* 2017). Overall, the two cohorts demonstrated similar positive attitudes towards breast health care ($p > 0.05$), indicating that both are willing to support their partners in practicing it.

4.4 Practice of breast health care services

The findings asserted that males whose partners had been screened and not screened would support their spouse in breast healthcare services. However, the evidence in this study shows that males whose partners had been screened were less resistant to their partners being examined by male doctors. This could be an indirect barrier to breast healthcare practices among females in rural communities. Onchong'a et al. (2018 reported that men in most communities, particularly in Africa, feel uncomfortable when it comes to women's reproductive health practices, and it could be sensitive when the services are rendered by male doctors. However, previous studies have shown that involving male partners in breast health services can improve uptake of breast health services in the community (Sayed et al., 2019).

The findings suggest a preference for female healthcare workers to examine their female partners. Although the findings suggested these factors as a hindrance to practicing breast health care to a small extent in the community, the findings showed that there are still some people in the community whose beliefs hinder them from effectively practicing and utilizing breast health care services. For example, males whose partners had been screened demonstrated resistance to allowing their spouse to be examined, which could be associated with unpleasant experiences, consequently affecting their readiness to support their partners on this matter. In Kenya, especially in rural communities, male partners are often the main decision makers on

their spouse's health matters (Bishwajit & Kpoghomou, 2017), and therefore they can prevent their spouse from receiving breast healthcare if they perceive the doctor is a man or prefer a traditional healer which could be a barrier to proper breast healthcare practice in the community (Bishwajit & Kpoghomou, 2017).

Evidence from the FGD demonstrated that the lack of involvement of male partners in breast healthcare practice, the absence of the right equipment in local clinics, the fear of women going to hospitals, poverty, and retrogressive cultural beliefs such as witchcraft were the main barriers to breast health practice among the Bondo sub-county communities. Other studies identified breast cancer stigma, social rejection, poverty, and lack of crucial equipment in health facilities as key barriers to breast health care practice in many communities (Gershfeld-Litvin et al., 2022; Sayed et al., 2019). The study's findings show that the main barriers to breast health practices in Bondo sub-county are cultural and resource-related factors. To minimize the impacts of cultural barriers, the FGDs recommended involving men in breast health care outreach programs, which will increase male support towards breast health care practice. Gershfeld-Litvin et al. (2022) suggested psychoeducation regarding breast cancer screening for men and women to reduce the stigma and stereotypes surrounding breast health care practice. Lack of enough male support and self-stigma by female partners in this study is a deterrent to the uptake of breast health care among the rural communities in Kenya.

4.5 Socio-Cultural factors influencing breast healthcare

The findings suggest that even though male partners are concerned about their spouse's health concerns, they hardly enquire about their spouse's detailed health information regarding hospital visits, perhaps due to cultural perceptions that breast health care practices are a woman's responsibility. This was the same for males whose partners had not been screened and those whose partners had been screened. Rural communities place significant emphasis on culture, such as religion, as the findings demonstrated. Religious leaders have a significant influence on people seeking breast health care services. Sabgul et al. (2021) also established that husbands are key decision-makers in many cultures; their knowledge, beliefs, and perceptions of breast healthcare practices can influence the utilization of clinical breast health services. Filipi et al. (2014) further indicated that men's views of breast cancer screening are paramount in enhancing positive health decisions to support breast health care practice. Religion also affects the uptake of breast healthcare practices by shaping beliefs, faith, and principles within the community that influence opinions about these practices (Pratt et al., 2017). Similarly, the evidence from the present study demonstrated that religion influences the decision-making of the rural community in Siaya, where participants stated they would seek assistance from religious leaders (partners not screened, 3.72 ± 0.976; partners screened, 3.64 ± 1.095) before seeking clinical breast health services.

Although participants stated they would visit or take their spouse to the hospital in case of breast cancer, some socio-cultural factors, such as fear of discrimination by the community and giving too much consideration to religious leaders' views on the subject, were potential socio-cultural factors affecting the utilization of breast health care practices effectively in the community. Bolton et al. (2019) made similar observations, establishing that differences in beliefs elevated barriers to breast cancer screening. Gershfeld-Litvin et al. (2022) also revealed that some people, specifically men, because of the most culturally designated roles, would feel

uncomfortable associating with someone who has breast cancer. However, screened females received more support from their male partners, demonstrating the significant role of men. These findings suggest cultural factors may lead to a lack of sufficient support for women and the disassociation of male partners from breast healthcare practices.

Evidence from key informants, however, showed that socio-cultural factors are not prominent in breast healthcare among the communities. The contradicting evidence from key informants and participants demonstrates a gap in breast healthcare information between the community and breast healthcare providers. Although key informants, the internet, and social media have reduced perceived social and cultural barriers affecting breast healthcare practice in the community, evidence from participants indicated that some barriers still exist, increasing the community's susceptibility to misinformation and poor breast healthcare practices. Bolton et al. (2019) recommended expanding community outreach programs to gather up-to-date information on breast health practices and to increase breast health education. Equally, the community in the study area would benefit from outreach programs focused on breast health education and data collection to keep healthcare providers informed about the current state of breast health practice in the region and reduce information discrepancies.

5. Conclusion

The study concludes that uptake of breast health care services in Siaya County remains low, reflecting limited awareness and persistent socio-cultural and health system barriers. Although male partners demonstrated varying levels of knowledge, differences were not strongly linked to screening status; however, men whose spouses had been screened showed greater support toward breast cancer diagnosis and treatment. Socio-demographic characteristics were not significant determinants of screening, suggesting that barriers such as fear, stigma, cultural beliefs, inadequate health education, and limited access to trained personnel and screening equipment play a more critical role. Overall, strengthening community sensitization, improving facility capacity, and promoting culturally responsive interventions that actively engage male partners are essential to increasing women's uptake of breast health services.

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