

# Care-Seeking Behavior in Cervical Cancer Screening among Gwafan Community Women, Jos, Plateau State

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## ABSTRACT

**Background:** Most people are infected with human papillomavirus (HPV) shortly after their sexual debut. Cervical cancer is preventable through screening, yet the screening rate is lower than the 70% WHO target. This study aimed to assess the care-seeking behavior of Gwafan community women in cervical cancer screening participation. **Methods:** A convergent mixed method was adopted for this study. Thematic analysis was used for qualitative data, while SPSS was used for quantitative data analysis. **Results:** The results show a significant relationship between age group and screening where older women were the most screened ( $X^2=6.290$ ;  $P\text{-value}=0.012$ ), and no significant difference in screening participation amongst women who experienced gynecological symptoms and those that did not experience ( $X^2=1.168$ ;  $P\text{-value}=0.281$ ). Most women (77.4%) have fears of diagnosis, uncovering the private areas of their bodies, painful procedures, and the feelings of shamefulness. They agreed that having more than one sexual partner is the risk cause, they moderately agreed that the outcome of cervical cancer is death. Majority agreed that a woman must obtain consent from her husband before going for screening and that husbands do not allow another person to touch their wives' private areas. **Conclusion:** The majority of the community women did not screen for cervical cancer, which may result from low income, feelings, social norms, negative beliefs and expectations, and past experiences. Screening participation among older women was higher, and experiencing gynecological symptoms has no positive influence on screening participation. This study formed the baseline for care-seeking behaviour interventions to improve screening participation.

**Keywords:** Care-seeking Behaviour; Cervical Cancer; Screening

## INTRODUCTION

Most people become infected with the Human Papilloma Virus after sexual debuts (WHO, 2013). Globally, Cervical Cancer (CC) is the fourth most common cancer in women (Arbyn *et al.*, 2020). At the regional level, CC is most common in Africa, with rates seven to ten times higher than in Australia, Western Asia, North America, and New Zealand (Bray *et al.*, 2018). In low- and middle-income countries, CC is the second most common cancer and accounting for 88% of deaths among women (Bray *et al.*, 2018).

There is a worrying rise in adolescent and young adult patients with cervical cancer among patients aged 0-30 years old, with most (72.2%) of these patients in 21-30 years group (Finocchario-kessler *et al.*, 2016). Screening can detect precancerous cells, which, when treated, prevent the transformation of these cells into malignant cells, yet the rate of screening is lower than the WHO target. Low economic status (US Preventive Services Task Force, 2018; Ari, Dioso & Sotunsa, 2023), affect, cultural norms, and negative beliefs and expectations may negatively influence screening participation, while experiencing gynecological symptoms (Momberg *et al.*, 2017; Ndejjo *et al.*, 2017) may increase participation.

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## METHODOLOGY

This study adopted a convergent mixed method design to gain insight into community women's care-seeking behavior for cervical cancer screening participation. A proportion formula  $\frac{[z^2(p \times q)]}{e^2}$  given by Cochran (1963) was adopted to calculate the minimum sample size.  $p = 32.6\% = 0.326$  proportion of women who had ever screened among health workers in JUTH and its environs (Eka, 2016). A total of 340 Gwafan community women were purposefully recruited. A self-developed questionnaire was used for quantitative data collection, and 12 out of these women were interviewed using a semi-structured interview guide. Criteria for inclusion: Women aged 21-65 years, sexually active, residing in the Gwafan Community. Criteria for exclusion include participants being unwilling to discuss or distressed by discussing cervical cancer, being critically ill or mentally unstable, having had a hysterectomy involving removal of the cervix, and being diagnosed with CC. The instrument was rated as 1. Poverty level: Extremely poor < 693.5 USD Naira, moderately poor = 693.5-1168.031 USD, and not poor > 1168.031 USD as annual income (Castañeda *et al.*, 2018; World Bank, 2017). 2. Age: Younger women = (21-29) and older women = (30-65) years. 3. Ordinal scale such as utility (belief and benefits) and norms level of agreement using the mean score: very Disagree = <1.5, slightly agree = 1.51-2.5, Moderately agree = 2.51-3.5, agree = 3.51-4.5, strongly agree = 4.51-5. A pilot test involving 10% of participants who met the inclusive criteria in Angwan Rukuba community was conducted and was found reliable with Cronbach co-efficient alpha 0.71. The instrument was assessed by experts for content and face validity, after which a final copy was drafted. Transferability was guaranteed by adopting a mixed-methods approach. The quantitative data was analyzed using SPSS version 21 software. Descriptive statistical analysis such as simple frequency tables, percentages, and mean, and inferential statistics such as Chi-square, were used. The interview was transcribed and analyzed by employing a deductive thematic analysis approach for care-seeking behavior theory using six steps of thematic analysis by Braun & Clarke (2006).

### Ethical Consideration

This research received ethical approval from the research ethics committees Jos University Teaching Hospital, Nigeria on 17<sup>th</sup> September 2021 with reference number JUTH/DCS/IREC/127/XXXI/2573.

## RESULTS

Findings on sociodemographic characteristics show that most (57.4%) were older women, while younger women were 42.6%.

**Table 1: Sociodemographic Characteristics**

Item	Frequency (f)	Percent (%)
<b>Age</b>	Younger	42.6
	Older	57.4
	Total	100.0
<b>Religion</b>	Christian	93.8
	Muslim	6.2
	Total	100.0
<b>Occupation</b>	Housewife	25.9
	Civil servant	17.6
	Businesswoman	37.6
	Others	5.0
	Student	13.8
	Total	100.0
<b>Annual Income in USD</b>	<693.5	81.0
	693.5-1168.031	9.5
	> 1168.031	9.5
	Total	100.0

Results on clinical variables show that 22 (6.5%) bled from their genital area. The majority (50%) of prior symptoms were lower abdominal pain, 25% itching and back pain, respectively.

**Table 2: Clinical Variables**

Item		Frequency (f)	Percent (%)
Symptoms like bleeding from the private part	Yes	22	6.5
	No	318	93.5
	Total	340	100.0
Symptom (s) before the bleeding	Back pain	1	25.0
	Itching	1	25.0
	Lower abdominal pain	2	50.0
	Total	4	100.0

Concerning women's feelings (affect), 52.1% said screening is embarrassing, and 53.2% perceived it to be painful.

**Table 3: Affect of Screening**

Item		Frequency (f)	Percent (%)
The procedure is embarrassing	Yes	177	52.1
	No	163	47.9
	Total	340	100.0
Procedure is painful	Yes	181	53.2
	No	159	46.8
	Total	340	100.0
Fear of exposing my private part	Yes	263	77.4
	No	77	22.6
	Total	340	100.0
Fear of the procedure and screening environment	Yes	220	64.7
	No	120	35.3
	Total	340	100.0
Fear of being diagnosed with the disease	Yes	258	75.9
	No	82	24.1
	Total	340	100.0

Results on utility show that women agreed that having more than one sexual partner is a risk factor (Mean = 4.24). They moderately agreed that the outcome of cervical cancer is death (Mean = 3.18).

**Table 4: Utility of Screening**

Item		F	%	Mean	Overall Average Mean
Lack of blood supply to the uterus after delivery as the cause	Strongly Disagree	167	49.1		2.81
	Disagree	86	25.3		
	Undecided	48	14.1		
	Agree	29	8.5	1.912	
	Strongly Agree	10	2.9		
	Total	340	100.0		
Having more than one sexual partner as the cause	Strongly Disagree	9	2.6		4.24
	Disagree	24	7.1	4.24	
	Undecided	27	7.9		
	Agree	96	28.2		
	Strongly Agree	184	54.1		
	Total	340	100.0		

Human papilloma virus as the cause	Strongly Disagree	68	20.0	
	Disagree	58	17.1	2.69
	Undecided	145	42.6	
	Agree	48	14.1	
	Strongly Agree	21	6.2	
	Total	340	100.0	
Evil spirit as the cause	Strongly Disagree	206	60.6	
	Disagree	93	27.4	
	Undecided	14	4.1	1.63
	Agree	16	4.7	
	Strongly Agree	11	3.2	
	Total	340	100.0	
Cervical cancer is not preventable	Strongly Disagree	137	40.3	
	Disagree	106	31.2	
	Undecided	53	15.6	2.05
	Agree	30	8.8	
	Strongly Agree	14	4.1	
	Total	340	100.0	
Screening will detect precancerous cells before they turn to cancerous cells	Strongly Disagree	14	4.1	
	Disagree	19	5.6	
	Undecided	60	17.6	3.92
	Agree	133	39.1	
	Strongly Agree	114	33.5	
	Total	340	100.0	
Outcome of cervical cancer is death	Strongly Disagree	39	11.5	
	Disagree	85	25.0	3.18
	Undecided	77	22.6	
	Agree	53	15.6	
	Strongly Agree	86	25.3	
	Total	340	100.0	

Table 5 shows that women agreed that a woman must obtain consent from her husband before going for screening (Mean = 3.94) and that exposing one's private part is culturally inappropriate (Mean = 3.77).

**Table 5: Norms of Cervical Cancer Screening**

Item	F	%	Mean	Overall average mean
A woman must obtain consent from her husband before going for screening	Strongly Disagree	15	4.4	3.71
	Disagree	28	8.2	
	Undecided	31	9.1	
	Agree	153	45.0	
	Strongly Agree	113	33.2	
	Total	340	100.0	
Exposing my private part is culturally inappropriate	Strongly Disagree	29	8.5	3.77
	Disagree	24	7.1	
	Undecided	51	15.0	
	Agree	128	37.6	
	Strongly Agree	108	31.8	
	Total	340	100.0	

<b>Culture does not allow sharing of hospital results and experiences</b>	Strongly Disagree	24	7.1		3.71
	Disagree	57	16.8	3.58	
	Undecided	45	13.2		
	Agree	126	37.1		
	Strongly Agree	88	25.9		
Total	340	100.0			
<b>Husbands do not allow someone to touch their wives' private part</b>	Strongly Disagree	19	5.6		
	Disagree	45	13.2	3.55	
	Undecided	98	28.8		
	Agree	86	25.3		
	Strongly Agree	92	27.1		
Total	340	100.0			

Regarding habits, 88.8% of the women had never been screened.

**Table 6: Habit**

<b>Item</b>	
<b>I have screened for cervical cancer</b>	Yes
	No
	<b>Total</b>
<b>Year Screened</b>	<2018
	2018- 2021
	<b>Total</b>
<b>Experience during previous screening</b>	Bad procedural experience
	Good experience
	<b>Total</b>

Table 7 shows the Pearson Chi-Square value at the 0.05 significance level is 0.012, the null hypothesis, which states there is no significant difference between age group and screening participation, is rejected.

**Table 7: Crosstabulation of Age Group and Screening for Cervical Cancer Pre-Intervention**

<b>Item</b>		<b>Ever screened for cervical cancer</b>		<b>Total</b>	<b>Chi-Square</b>	<b>Df</b>	<b>P-value</b>	
		<b>Yes</b>	<b>No</b>					
<b>Age</b>	<b>Younger</b>	Count	9	136	145	6.290	1	0.012
		% Within Age in years	6.2%	93.8%	100.0%			
	<b>Older</b>	Count	29	166	195			
		% Within Age in years	14.9%	85.1%	100.0%			
<b>Total</b>	Count	38	302	340				
	% Within Age in years	11.2%	88.8%	100.0%				

The result in Table 8 shows that Pearson Chi-square 0.281 is significantly greater than 0.05; therefore, we fail to reject the null hypothesis that states there is no significant difference between experiencing gynecological symptoms and screening.

**Table 8: Crosstabulation on Having Any Symptom Like Bleeding from Your Private Part and Ever Screened for Cervical Cancer**

			Ever screened for cervical cancer		Total	Chi-Square	Df	P-value
			Yes	No				
Having symptom like bleeding from private part	Yes	Count	4	18	22	1.163	1	0.281
		% Within having symptoms like bleeding from private part	18.2%	81.8%	100.0%			
	No	Count	34	284	318			
		% Within having symptoms like bleeding from private part	10.7%	89.3%	100.0%			
Total	Count		38					
	% Within having symptoms like bleeding from private part		11.2%	88.8%	100.0%			

**DISCUSSION**

Regarding sociodemographic variables, findings indicate that the majority (57.4%) were older women, and most (81%) women were extremely poor with a yearly income of <693.5 USD. This study found a significant relationship between age group and screening, as seen where the majority of those that had ever screened were older women not similar to (Mungai *et al.*, 2016) where the majority of those who screened were younger women, congruent with (Ari, Dioso & Sotunsa, 2023). Concerning the clinical variable for screening, only 6.5% experienced gynecological symptoms, which corroborates with the qualitative data as only 3 participants experienced gynecological symptoms in some quotes:

*"Bleeding some few months ago before menses" 01. "My own is toilet infection, itching" 11.*

This study found that experiencing gynecological symptoms did not significantly improve screening participation ( $X^2 = 1.168$ ;  $P\text{-value} = 0.281$ ), which is contrary to (Ari, Dioso & Sotunsa, 2023; Ndejjo *et al.*, 2017; Momberg *et al.*, 2017).

Regarding women's feelings, findings show that majority felt that the procedure for screening is shameful in line with (Chen *et al.*, 2018; Lor *et al.*, 2013; Vhuromu *et al.*, 2018; Kue *et al.*, 2020; Des Marais *et al.*, 2022; Gitonga *et al.*, 2022"; Lunsford *et al.*, 2017; Ari, Dioso & Sotunsa, 2023), 53.2% feel the procedure is painful as found (Vhuromu *et al.*, 2018; Ari, Dioso & Sotunsa, 2023), fear of uncovering ones private parts, and screening procedures and environment which is congruent with ' Ari, Dioso & Sotunsa, 2023 Ubah *et al.*, 2022 (Chen *et al.*, 2018; Lor *et al.*, 2017; Ari, Dioso & Sotunsa, 2023; Ubah *et al.*, 2022), 75.9% fears of diagnosis (Yang *et al.*, 2019; Ari, Dioso & Sotunsa, 2023; Ubah *et al.*, 2022). This finding corroborates with the qualitative data revealed fears of diagnosis, procedure, and screening environment, and of the disease, as quoted:

*"It's ok but there is this fear of detecting traces, going there is fearful" 01.*

*"Ah, am scared of it oh, that's the truth, just like that. I even went with money to do it but refused" 09.*

Concerning utility, women agreed that having more than one sexual partner is a risk factor for cervical cancer ( $M = 4.24$ ) and screening will detect precancerous cells before they turn to cancerous cells ( $M = 3.92$ ) which is in line with (Ifemelumma *et al.*, 2019; Vhuromu *et al.*, 2018). Women moderately agreed that Human papilloma virus is the cause ( $M = 2.69$ ) contrast with (Yang *et al.*, 2019) where participants don't know the causative organism. They moderately agreed that outcome of cervical cancer is death ( $M = 3.18$ ) in line with (Gitonga *et al.*, 2022; Ari *et al.*, 2023). Women slightly agreed that evil spirit ( $M = 1.63$ ), lack of blood supply to the uterus after delivery ( $M = 1.912$ ) is the cause of cervical cancer, and cervical cancer is not preventable ( $M = 2.05$ ). Women have moderate beliefs and expectation in screening participation with an overall mean of 2.8. as found (Momberg *et al.*, 2017) that women have limited

knowledge of cervical cancer and pap test. Negative beliefs were found in this study as women believed that if one were screened, their result could be exchanged for someone who has the disease in line with (Momberg *et al.*, 2017) who found negative beliefs related to screening. For qualitative data, some women believe that screening is for preventive, and diagnostic purposes, most participants have good thoughts about cervical cancer, but some see it as a serious disease as stated as quoted:

*"It is good for diagnosis; it is done to diagnose so that treatment can be done for the person" 02.*

*"Waw! It is something that can be prevented, but it is a very difficult disease" 07.*

*"I am just hearing, I don't know anything about the disease, I don't know cancer sickness" 11*

Related to the norms of screening, women agreed that a woman must obtain consent from her husband before going for screening (mean score = 3.94) in line with Yang *et al.* (2019) in order not to disrespect their husbands which may negatively influence screening participation. This study found exposing one's private as culturally inappropriate (Mean = 3.77) which is congruent with (Yang *et al.*, 2019; Lor *et al.*, 2013). This study revealed a culture that does not allow for sharing of hospital results and experiences (Mean = 3.58) which is similar to what was found that even when screening is done while pregnant one does not tell anyone (Momberg *et al.*, 2017). It was found that husbands do not allow someone to touch their wives' private parts (Mean = 3.55). feel reluctance to remove clothing or allow genital examination, especially being exposed in front of non-family members (Yang *et al.*, 2019). Personal norms and social norms has negatively influence participation in this study has found (Momberg *et al.*, 2017).

Regarding screening habits, 88.8% had never been screened for cervical cancer. The quantitative data corroborate with the qualitative data as out of 12 participants interviewed, ten had never screened as in some quotes:

*"I have not done the screening" 04*

*"I have never screened" 06*

*"Ok, I have not, I have not gone for it yet" 12.*

The screening rate in this study is higher than 9% and lower than 32.6% (Eka, 2016) of some studies conducted in the study area, lower than 41.4% (Vhurumu *et al.*, 2018) in South Africa. Low screening participation in this community may result from low income similar to (US Preventive Services Task Force, 2018).

Women in this study who experienced gynecological symptoms may not be screened for reasons such as the perceived norm that a woman must obtain consent from her husband before going for screening; exposing one's private parts is culturally inappropriate; husbands do not allow someone to touch their wives; and the belief that an evil spirit is one of the causes of the disease.

## **Recommendation**

### **This study recommends that:**

Researchers: Interventions related to psychosocial variables of care-seeking behaviour be conducted to improve cervical cancer care-seeking behaviour.

Community: Community men and women should be provided with culturally sensitive education related to cervical cancer and screening services in order to dispel their negative perceptions about screening.

Nursing Practice. Information regarding screening for cervical cancer should be provided to both men and women opportunistically when they come for hospital visits and in their communities. Health care providers should have a welcoming attitude toward clients who visit their institutions.

## **Limitation**

This study evaluated the psychosocial, socioeconomic, and clinical variables in the theory of care-seeking behaviour. The study was conducted in the Gwafan community, which may not represent the care-seeking behaviour of other communities.

## **CONCLUSION**

The majority of the community women did not screen for cervical cancer, which may result from low income, feelings, social norms, negative beliefs and expectations, and past experiences. Screening participation among older women was higher, and experiencing gynecological symptoms has no positive influence on screening participation. This study formed the baseline for care-seeking behaviour interventions to improve screening participation.

## Conflict of Interest

The authors declare that they have no conflict of interests.

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