
High Prevalence of Vaginal Health Problems among the Women Living in Coastal Villages of Bangladesh

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Communication

High Prevalence of Vaginal Infections in Coastal Villages of Bangladesh

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Abstract: The coastal zone of Bangladesh covers an area of 47,201 square km, 32% of the country, around 35 million people are living coastal zone, where about 15 million are women (Ahmad, 2019). Though the women of this area have a significant contribution in aquaculture, food production and economic growth of Bangladesh, still the health issues of women remain ignored, especially sexual and reproductive health issue. Women and girls experience heightened vulnerabilities to reproductive health problems in coastal areas. In aiming to investigate the prevalence of vaginal problems in coastal area the study has been designed. The study followed retrospective cohort study as a study design and use percentile and regression analysis to draw the result of the study. The study found that 94% of women are experiencing vaginal problems in coastal villages in Bangladesh. This number is about 05 times higher than the non-coastal villages and it also found water use for hygiene practice as a significant role for high rate of vaginal diseases in coastal areas of Bangladesh

Keywords: vaginal problems; coastal women; water quality; Bangladesh

94% of women reported experiencing vaginal problems in coastal villages of Bangladesh. This number is about five times higher than the non-coastal villages. The rate of vaginal problems indicates that women's health is at high risk in coastal Bangladesh



Photo Credit: Naznine Nahar

The coastal zone of Bangladesh covers an area of 47,000 square km, 32% of the country. Around 35 million people live in the coastal zone, of which about 18 million are women (Ahmed, 2019). Although these women contribute significantly to the national food basket and ultimately the economic growth of Bangladesh (Munir, 2022), however, their health issues especially sexual and reproductive health remain ignored (Khan et al., 2015).

Reproductive health issues including vaginal infections and uterine problems are the leading cause of health concerns among girls and women living in these coastal areas (Siddique, 2021). Thus, studies that sort to determine the prevalence and potential risk factors of these vaginal infections are of paramount importance to help educate these women on preventive strategies.

To investigate the prevalence and perceived risk factors associated with these vaginal infections in these coastal villages, a cross-sectional study was conducted by the local youth organization called Bindu in collaboration with Leibniz Centre for Tropical Marine Research, Bremen (ZMT) with the financial support of Institut für Auslandsbeziehungen (IFA). Two non-coastal villages of Kaliganj subdistrict and two coastal villages of Shyamnagar Subdistrict, all in the Satkhira district of Bangladesh were selected for this study. These districts were selected because they have similar socio-demographic characteristics. Using the Yamane formula (Adindu & Olalekan, 2018) a total of 100 women of reproductive age were randomly selected from a national identification number list of local government - 50 from coastal villages and 50 from non-coastal villages, and a well-structured questionnaire were administered to these women. To avoid other health conditions from confounding the analyses, we excluded women who have compromised immune system (e.g. pregnant women), have diabetes, taking antibiotics or having chronic diseases like cancer, HIV (Ferris et al., 2002). The prevalence of vaginal infections was estimated as the number of women with those infections out of the total number of women within each sub-district. Additionally, the perceived risk factors (i.e. type of water use for hygiene, housing type, how much time they spend in saline water, age, occupation, education level, marital status, family income, toilet type, type of menstrual material used during menstruation, menstrual material change time, and whether or not they have unprotected sex) association with these infections were determined by using a binary logistic regression model.

The study revealed significant differences between two sub-districts. While 18% of women have vaginal problems in non-coastal areas, 94% of women have vaginal problems in coastal areas (Table 1). That results indicates 5 times higher prevalence of vaginal problems in coastal villages than the non-coastal villages. The women described itching, burning, inflammation, and swelling as the main symptoms of vaginal infections. In coastal areas, the highest number of women, about 42% have reported itching, burning, inflammation and swelling in their vagina, with second highest 30% claiming both itching and swelling. Whereas in non-coastal villages, 8% have both itching and burning, where 6% women said that they have vaginal itching problem, 2% have both itching burning and swelling and 2% have both itching and swelling. Of the women living in the coastal study site 58% report their vaginal problems to be continuous, the percentage of women in coastal villages who experienced the vaginal problem weekly, monthly, quarterly and yearly is 2%, 8%, 14% and 12%, respectively. In the non-coastal areas, 10% of the women interviewed had ongoing vaginal issues.

Table 1. Description of vaginal problems.

Characteristics	Population in Percentage	
	Non-Coastal Village N=50	Coastal Village N=50
Prevalence of Vaginal Problem (%)	18%	94%
Experiencing Vaginal Problem		
Only Itching	6%	12%
Both Itching and Burning	8%	4%
Both itching, swelling and other	2%	30%
Both Inflammation and burning	--	4%
Together Itching Burning and Swelling	2%	2%

Together Itching, burning inflammation and swelling	--	42%
Frequency of Experiencing Vaginal Problem		
Continuously/Everyday	10%	58%
Once in a Week	2%	2%
Once in a Month	2%	14%
Once in three months	--	8%
Once in yearly	4%	12%

The regression model shows that none of the variables influenced vaginal diseases except the type of water use for hygiene practice. Among all the factors, the model only finds that using water for hygiene practices significantly associated with vaginal issues ($P < 0.001$ and Table 2). It should be noted that the type of use water for hygiene practice includes the saline water and fresh water for this study (i.e. coastal water).

To summarize, coastal villages have high prevalence rate of vaginal problems and the use of coastal saline water for hygiene practice plays a significant contribution in this high prevalence rate of vaginal diseases in coastal areas in Bangladesh. While this is a preliminary study, it clearly shows the potential dimension of the problem and calls for a further in-depth study of water quality and vaginal problems to determine the actual cause of vaginal problems involving taking vaginal swabs to determine actual microbial infections to ascertain the causes or agents responsible for vaginal problems in coastal area of Bangladesh and eventually improve the health situation of women living there.

Table 2. Perceived risk factors associated with vaginal problems.

Logistic Regression-Variables in the Equation						
	B	S.E.	Wald	df	Sig.	Exp(B)
Type of Water use for Hygiene	4.629	1.018	20.691	1	.000	102.361
Housing Type	-.440	.552	.637	1	.425	.644
How much long they have to spend in saline water (minutes)	.003	.006	.197	1	.657	1.003
Age	-.120	.072	2.727	1	.099	.887
Occupation	-.071	.505	.020	1	.888	.931
Education Level	-.144	.155	.873	1	.350	.866
Marital Status	.354	1.606	.049	1	.826	1.424
Family Income	.000	.000	.124	1	.724	1.000
Toilet Type	.581	.817	.505	1	.477	1.788
Menstrual Material	.191	.953	.040	1	.841	1.211
Menstrual Material Change time (Hour)	.107	.123	.765	1	.382	1.113
Unprotected Sex	1.714	1.522	1.269	1	.260	5.552
Constant	-7.927	4.705	2.838	1	.092	.000

R square for the model is 0.769

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