

Original Article

Vulvovaginal Care Practices among Patients Presenting to Special Treatment Clinic of a Tertiary Healthcare Facility in Northwest Nigeria

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ABSTRACT

Background: To prevent discomfort from vulvovaginal complaints and as a way of maintaining personal hygiene, women use various cleaning agents for vulvovaginal care. Unfortunately, some of these agents are injurious to the vulvovaginal area. The muco-cutaneous inflammation, often caused by their use may cause further discomfort and increase the risk of acquisition of sexually transmitted infections like HIV.

Aim: This study aimed at identifying agents women commonly use for vulvovaginal care with a view of generating public awareness and promoting correct practices thereby reducing risk of acquiring sexually transmitted infections such as HIV, genital chlamydial infection and gonorrhoea.

Methodology: It was a cross sectional study involving women who presented to the Special Treatment Clinic (STC) of a tertiary healthcare facility in Northwest Nigeria with vulvovaginal symptoms over a 6-month period were recruited. Structured questionnaire was used to collect data on their socio demographic and bio-medical characteristics, symptoms of vaginitis and various vaginal cleaning agents used. Data was analyzed using SPSS version 20.0 and descriptive statistics documented.

Results: A total of 351 women attending STC were analyzed. Age range was 15- 65years, with mean age of 28.7±8.5. Majority 247(70.1%) were married, 229 (65.2%) were unemployed while 144(41%) had attained tertiary education. The commonest agent used for vulvovaginal care (52.4%) was water only. Other agents identified included antiseptic soap/solution (8.8%), mild toilet soap (8.5%), herbs (2.8%), local soap (2.3%) and 21.9% used a combination of various agents. Educational level was the only factor associated with type of agents used for cleaning (p=0.002).

Conclusion: In conclusion, the high prevalence of use of other agents apart from water underscores the need for creating public awareness about proper vulvovaginal care among young girls and women.

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Keywords: Vulvovaginal Care, Special treatment clinic.

INTRODUCTION

Women use various cleaning agents for vulvovaginal care as a way of maintaining personal hygiene and to prevent discomfort from vulvovaginal complaints.¹ Unfortunately, some of these agents are injurious to the vulvovaginal area. The inflammation caused by their use increases the risk of acquisition of infections like bacterial vaginosis, vulvovaginal candidiasis, Human Immunodeficiency Virus (HIV) and other sexually transmitted infections (STIs).^{2,3} It has been documented that alteration of vaginal microbial niche leads to bacterial vaginosis with symptoms which affects a lot of women psychologically.² This leads to feeling of genital uncleanness, vaginal itching of various degrees with attendant embarrassment, and fear of stigmatization by their partners as it may be associated with the acquisition of STIs and or accusations of promiscuity.²

The vulva is the external female genitalia that surrounds the opening to the vagina; collectively this consists of the labia majora, the labia minora, clitoris, vestibule of the vagina, bulb of the vestibule, and the glands of Bartholin while the vagina is the canal extending from its external opening in the vulva to the cervix and is majorly made up of smooth muscle covered with a non-keratinized epithelial lining. It is moderately acidic with a pH ranging from 3.8-4.5 in women of reproductive age which is more acidic than the human skin with a pH range of 4.7-5.75. The skin of the vulva and vagina is very sensitive to some chemical agents such as soap, antiseptic wipes, dusting powder, perfumes, deodorants, antiseptics solutions and excessive scrubbing using bathing sponge.⁴ This may be attributed to differences in pH as well as the chemical components they contain. Some of these agents are also used for vaginal douching which is the intentional introduction of a substance or solution into the vagina either by hand, water jet or a pump for extensive cleaning. These practices are influenced by factors such as education, culture, religious inclination and guidance from healthcare professionals.³ There is abundant literature on vaginal health but very little is published in medical literature about how women care for the vulvovaginal area and how the method of care affects the area. This study aimed to identify agents commonly used for vulvovaginal care with the view to create awareness and curb harmful practices. It is hoped that this will invariably generate

public health campaigns to promote healthy practices thereby reducing the risk of inflammation, acquiring sexually transmitted infections and other consequences such as dyspareunia, bacterial vaginosis, vulvovaginal candidiasis et cetera that may result from the use of non-recommended vaginal care products.

METHODOLOGY

A cross sectional study was conducted at the Special Treatment Clinic (STC) of a tertiary healthcare facility in Northwest Nigeria from July to December 2018 among clinic attendees. We recruited women that presented with vulvovaginal complaints (abnormal vaginal discharge, itching), lower abdominal pain and those who came for specimen collection (High vaginal or Endocervical swabs for microscopy, culture and sensitivity).

Ethical clearance (ABUTH/HREC/BO9/2018) was obtained from the Health Research Ethics Committee of Ahmadu Bello University Teaching Hospital, Zaria, Kaduna State. Verbal and informed written consent was obtained from the participants in the study.

Data was collected using structured self-administered questionnaires. Demographic information such as age, sex, marital status, occupation and educational status of the participants were obtained. History of symptoms: vaginal discharge, itching, abdominal pain, antimicrobial usage and details on types of agents used for cleaning the vulvovaginal area, were also obtained. Data was entered using Microsoft excel and analysis was done with Statistical Package for Social Science (SPSS) version 20.0. Data were summarized using mean, standard deviation and results were presented in tables and charts.

RESULTS

Overall, four hundred and fifty-one (451) participants were recruited into the study. Of these, three hundred and fifty-one (77.8%) fulfilled the criteria for the final computation. Age range of the participants was 15 - 65 years with mean age of 28.7±8.5years. Majority of the respondents 247(70.4%) were married, 229 (65.2%) of them were unemployed while

156(44.4%) had attained tertiary education (Table1).The most common complaint experienced by the study participants was abnormal vaginal discharge (92%) (Table 2) with 'water only' as the commonest cleansing agent used (52.4%) (Figure 1).Other vaginal cleansing agents identified were antiseptic soap/solution (8.8%), mild toilet soap (8.5%), local soap (2.3%), herbs (2.8%), and 21.9% of respondents used a combination of agents. There was a statistically significant association (p<.05) between agents used and educational level of the respondents (Table3).

Table 1 : Sociodemographic characteristics of respondents

Characteristics	Frequency(n) N=351	Percentage (%)
Age group		
15 - 24	121	34.5
25. 34	168	47.9
35- 44	43	12.3
>44	19	5.4
Educational level		
Primary	41	11.7
Secondary	113	32.2
Tertiary	156	44.4
None	41	11.7
Marital status		
Married	247	70.4
Unmarried	104	27.6
Occupation		
Employed	122	34.8
Unemployed	229	65.2

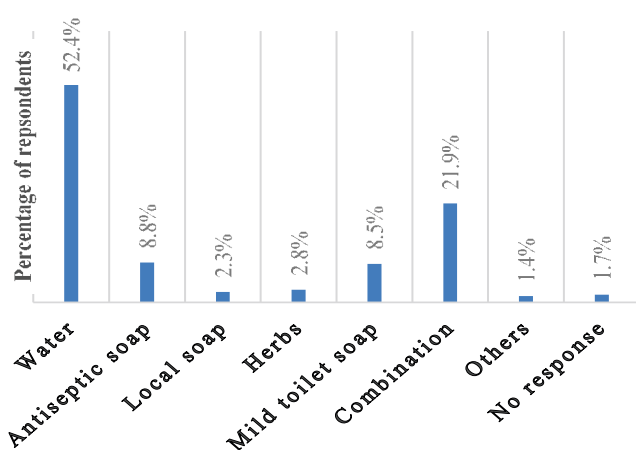


Figure 1: Agents used in vulvovaginal care among STC clinic attendees June -December 2018

Table 2: Clinical presentation of STC clinic attendees June -December 2018

Presentation	Yes (%)	No (%)
Abnormal vaginal discharge	323 (92)	28 (8)
Vaginal itching	211(60.1)	140(39.9)
Lower abdominal pain	271(77.2)	80(23.8)

Sociodemographic factors	Agent for vulvovaginal care	Chi-square value	P-value	
Age	Water	1.308	0.727	
	15 - 24			70
	25 - 34			87
	35 - 44			22
Occupation	Water	2.392	0.122	
	Employed			56
	Unemployed			134
	>44			11
Educational level	Water	14.776	0.002*	
	Primary			12
	Secondary			63
	Tertiary			96
Marital status	Water	7.246	0.123	
	Married			126
Marital status	Other agents	40		
	Unmarried			64

DISCUSSION

The results of this cross-sectional study brought to the fore particular vulvovaginal care practices among STC clinic attendees and identified the agents commonly used for vulvovaginal care. This included water only, toilet, antiseptic and herbal soaps and other items like salt, garlic, herbs and washings

from Arabic writings ('rubutu'). In this study, water, which is the standard and preferred agent for vulvo-vaginal cleaning was the most prevalent agent used. This is a commendable occurrence among study participants as it would not alter the vaginal normal flora nor cause irritation or affect the vaginal pH. The vagina is naturally fashioned to keep itself clean with the help of natural secretions, The other agents commonly identified in vulvo-vaginal care such as antiseptic soaps, wipes, herbs et cetera would not only alter the normal vaginal pH and microbial flora but also contain chemical agents which would likely cause irritation. Some vulvovaginal care practices using the different agents identified in this study disrupt the normal ecosystem of the vulvovaginal area leading to development of vaginitis. Different agents used just as observed in this study have also been reported by other authors elsewhere.^{5,6,7} With the exception of water, the agents used were commercially manufactured or homemade. Most products used were commercially manufactured with lactic acid, glycerine and other natural extracts like garlic as key ingredients.⁷ Some of the respondents as observed in this study used herbs (the specific types were not included), local soap and a combination of agents which may further predispose them to vulvovaginitis, for example local soap (black soap)⁸ and herbs may contain impurities which may irritate the vagina leading to severe itching and other inflammatory responses.

Though this study did not seek to establish the correlation between vaginal symptoms and the agent used, the study was undertaken for identification of the various types of agents used for vulvovaginal care, as an initial first step towards identifying their effects and subsequent role in adverse vaginal health conditions. This is particularly important as certain vaginal conditions which result from these practices may increase risk of acquiring sexually transmitted infections, including HIV.^{2,3}

While we cannot lay claim to a causal relationship between the various cleaning agents used and the women's clinical presentation in this study, many studies have established that there is a relationship between the agents used for vulvovaginal care and adverse vaginal health outcomes like vaginal itching, vaginal discharge, urinary tract infection and STIs.⁹⁻¹³ Crann et al found that women who used gel sanitizer for vaginal care had 8 times higher odds of reporting vaginal yeast infections while the use of feminine and baby wipes were associated with higher odds of Urinary Tract

Infection (UTI), and vaginal moisturizers/lubricants was associated with higher odds of both yeast and UTIs.⁷ Agents used for vaginal care like those identified in this study and previous studies contain chemical ingredients such as glycerine, lactic acid, powders, deodorants and other irritants which cause or exacerbate vaginal yeast infection by disrupting the natural vaginal microbiome or through micro-abrasions caused within the vaginal mucosa.⁷

Among the sociodemographic variables explored in association with type of vaginal care agent used, educational level was found to be statistically significant. Respondents who had attained tertiary education and other levels of education were more likely to use water only than other unhealthy vaginal care options. This is understandable as education tends to affect health seeking behavior with an educated person more likely to seek healthcare in comparison to uneducated persons or source relevant information from other sources such as literature, media et cetera and so have better chances of obtaining correct information. Though the educated individuals are also likely to abuse medication especially considering the rate at which people now consult internet facilities for treatment and only report to hospital following complications from their medical conditions. Also it has been documented that vaginitis (itching, abnormal discharges) is the commonest condition for which women sought gynaecological consultation in most climes,^{14,15} because of knowledge and information that is now available some educated persons used different feminine liquid or solution which may contain irritant or microbicidal agent which are toxic to normal flora such as lactobacilli thereby promoting proliferation of opportunistic pathogens such as *Candida species*(*Candida albicans*, *non albicans candida eg candida tropicalis*, *Candida krusei*, *Candida tropicalis*, *Candida parapsilosis* etc) and bacterial agents (*Gardnerella vaginalis*, bacteriodes, *Mobilincus*) that predisposes to bacterial vaginosis. It has also been reported that vulvovaginitis due to some non-albican candida is resistant to commonly used azoles thereby difficult to treat¹⁶ resulting in protracted symptoms and making women to keep on visiting clinics due to inadequate/inappropriate information and or management as well as causing them to source for treatment from online platforms. Since education plays a significant role in the type of agents used for vulvovaginal care, it is important for

the educated clients to get appropriate information from recognized professionals to minimize unnecessary use of harmful agents.

It is obvious that further research is necessary to explore the association between vaginal-care agents identified by this study and adverse health outcomes. This will help to increase awareness of vaginal health as an important part of a woman's overall health, knowledge of its care and adverse health effects of both 'modern' and 'traditional' vaginal cleansing agents.

In conclusion, various unhealthy vaginal care agents are utilized by Special Treatment Clinic attendees at this facility. There is a need to increase awareness on the harmful effects of such agents to inhibit these practices and improve the adoption of healthier options. More research to explore the associations between the agents identified in this study and vaginal health outcomes is needed to improve clinical practice and add to the existing body of knowledge.

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Conflict of Interest: There are no conflicts of interest.

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