PERCEPTION AND PRACTICE OF WOMEN ON VAGINAL DISCHARGE IN RELATION TO REPRODUCTIVE HEALTH AND THE WAY FORWARD: A STUDY AT MAMPONG AKUAPEM – EASTERN REGION OF GHANA.

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Abstract: Although many cases of vaginal discharge are not caused by sexually transmitted infections and do not need to be treated, common curable sexually transmitted infections can present with this symptom. Controlling the spread of sexually transmitted infections and HIV are key public health priorities worldwide. Recent advances are changing investigation techniques and the management of vaginal discharge. Clinicians need to be aware of emerging epidemiological data, the different presentations of vaginal discharge, and how to approach their management so that the symptom can be treated according to its etiology. Vaginal discharge occurs when pathogenic organisms invades and proliferates in or around the vagina that creates discharge, odour, irritation, or itching. The condition is difficult to diagnose due to its varied pathogenicity. Vaginal Discharge is a common gynecological disorder amongst women in the world. Research indicates that vaginal discharge will be experienced by most women at least once in their lives or possibly more (WHO 2002). The common cause of vaginal discharge are; vaginal candidiasis (yeast infection), bacteria vaginitis, and trichomoniasis.

Key Words: vaginal discharge, over the counter medications (OTC), Infections, reproductive health, ministry of health (MOH), Ghana health service (GHS), family planning, sexually transmitted infections (STI).

1. INTRODUCTION:
A research conducted on feminine hygiene showed that 66% of women think of washing their private part in particular to maintain hygiene. According to the research, a complete lack of unawareness exists for a specific feminine hygiene as most girls recall using soaps, antiseptic lotions or talcum powder to curb dampness and odour as a feminine product for their private part. (Mehrad1995). Another research conducted in America showed that vaginal douching was a common practice among women attending a public family planning clinic in a small southern city (B.J Foch et al 2001).

2. METHOD:
A descriptive quantitative research design was employed base on its suitability for the study. Sample size of 50 women was selected using a simple random sampling technique. Data was gathered using a semi-structured questionnaire and analyzed with computer software (SPSS) and Findings presented in charts and graphs.

3. BACKGROUND TO THE STUDY:
Globally about 95% of young women experience some level of vaginal discharge but refuse to seek treatment due to shyness, therefore making it very difficult for treatment thereby resulting in the recurrence of the condition. Yet accurate diagnosis is essential for proper treatment. The symptoms vary among individuals depending on the area affected and the infective pathgen. Infection of the vagina or vulva may cause severe itching, burning, soreness, irritation, and a whitish or whitish-grey cottage cheese-like discharge, often with a curd-like appearance. These symptoms are also present in the more common bacterial vaginosis. In a 2002 study published in the Journal of Obstetrics and Gynaecology, about 33 percent of women on self-medication for vaginal discharge were accurate (Gregor Reid 2002).

The situation in Africa is not different. It has been revealed that nearly 9 out of every 10 Zimbabwean women in the sample reported vaginal cleansing; about two-thirds reported vaginal drying and a smaller proportion, 12%, reported inserting products to tighten the vagina (Moyo et al 2010). In a similar randomized trial on South African women participating in cervical cancer screening, all women reported some type of intravaginal practice, with 86% of women inserting water and much lower proportions inserting soap (18%), household antiseptics (12%), industrial detergents (5%), vinegar (4%), and salt water (2%). Vaginal practices in a prospective cohort of Kenyan sex workers were also frequent, with 71% reporting using soap or other detergent/antiseptic substances for vaginal cleansing at baseline and 23% reporting vaginal cleansing with water only. Ghana has adopted the MOH and GHS policies and protocols in the management of reproductive health problems. Management strategies in this regard include the provision of clinical and non-clinical services to susceptible women. Access to these services are readily available in both governmental
health institution, private clinics and herbal clinics in Ghana however there are challenges regarding access to reproductive health services in health facilities. This is due to the fact that it is culturally unhealthy in Ghana for one to freely talk about issues relating to the reproductive system specifically the external genitalia. Some young women feel shy to complain whereas others deem it immoral to let a male gynecologist to examine their genital area. Due to these reasons stated above, most Ghanaian young women tend to take every symptom of vaginal infection as yeast specifically candidiasis thereby making them to sought self-treatment with over the counter drugs. These practices result in a more complications especially when the infection is clinically ruled to be that of a bacterial or viral origin.

4. PROBLEM STATEMENT:
Education on vaginal discharge has been relegated to the background. In most parts of Africa, it is regarded culturally unhealthy for one to freely speak about issues relating to reproductive health issues especially those concerning the external genitalia. However, it has been reported “vaginal discharge is a principal reason why most women visit the gynecological clinic”. Aside from the economic consequences to the society and individuals, discharge and it associated complications results in infertility in women, birth defect, neonatal infections, and prenatal death. Approximately 67% of infertility in women in the Sub-Saharan Africa is due to tubal blockage resulting from vaginal infection and its related practices (Low et al 2011). This therefore calls for the need to find out the perception and health seeking behavior of women in relation to vaginal discharge. Comparative observations of the social, demographic, cultural and obstetric factors that might have contributed to the increased incidence of vaginal discharge among Ghanaians are unknown. This provides a poor framework for planning and focused intervention by organized institutions on vaginal infections and their associated complications. It is against this background that the researcher has designed to study on the perception, attitude and practices of women towards vaginal discharge among women in the Akuapem North District of the Eastern Region of Ghana.

5. PURPOSE OF THE STUDY:
The purpose of the study is to explore the perception, attitude and practices of women on vaginal discharge and to suggest strategies that may promote reproductive health.

6. SIGNIFICANCE OF THE STUDY:
• The findings would be a valuable source of data for stakeholders on reproductive health to strategize or review policies, facilities and standards on sensitization, education and appropriate management of vaginal discharge in the community to ensure fertility and promote safe motherhood.
• Findings would also serve as source of primary data for subsequent research on reproductive health.

7. SCOPE OF STUDY:
The study focused mainly on perception, attitude and practices on vaginal discharge by women of reproductive age group in Mampong Akuapem.

8. LIMITATION OF THE STUDY:
The following are some challenges encountered during the study period; small sample size due ostracism, inadequate funds to expand the research work, limited time for the research work, non-availability of research assistants and uncooperative respondents.

9. LITERATURE REVIEW:
Vaginal discharge is one of the most common symptoms of gynecological morbidity. Vaginitis is the most prevalent cause followed by cervicitis, however vaginal secretions also increase physiologically during mid-cycle and pregnancy. Sexually Transmitted Diseases (STDs) and Reproductive Tract Infections (RTI’s) often present with vaginal discharge, (Narjis Rizvi, Stephen Luby 1997). It is estimated that approximately 75% of all women will, at some time in their lives, experience at least one episode of vaginal thrush and that some women experience recurrent episodes (Irving et al., 1998). Vaginal infections are common gynaecological disorders amongst women in the world characterized by varying degree of vaginal discharge. Research indicates that vaginal infections will be experienced by most women at least once in their lives or possibly more (WHO 2002). To have an unpleasant smell in the vagina could however be combined with increased stress (Harville et al., 2007). In a study conducted in Mampong Akuapem, it was found out that perception on reproductive health is higher in women of the urban areas whereas in the rural areas much work needs to be done to create awareness on reproductive health. Many of the women did not know about the actual causes of vaginal discharge yet they were all aware of its implications, (Bang et. al. 1989). Vulvo vaginal symptoms are extremely common, accounting for over 10 million office visits per year, as well as frequent self-diagnosis and therapy. As an example, a random telephone survey in the United States found that 8 percent of Caucasian women and 18 percent of African American women reported an episode of vaginal symptoms of any severity in the previous year (Jack D. Sobel, 1996).
10. DISCUSSION:

10.1 PERCEPTION ON VAGINAL DISCHARGE

Clearly some women felt a sense of shame and spoiled identity when they have vaginal infections. Many of the women said that thrush made them feel extremely ‘dirty’. One elderly woman said that she could not go out and she was unable to pray because she felt dirty all the time. Another young woman also recalled that for her thrush was a ‘very, very, dirty experience’. According to the women interviewed in the study, vaginal infections like thrush is not immediately visible and it appears that stigma was largely ‘felt’ rather than ‘enacted’, (Scambler and Hopkins, 1986). In a study conducted in North Jutland County and Aarhus County, Denmark by use of a multi-practice study including questionnaires for women and doctors and a semi-structured interview study. The study was to describe women's perceptions and beliefs about their vaginal secretions and to relate these to their behaviour with respect to complaints of vaginal discharge. 283 women with and 417 women without complaints of vaginal discharge answered a questionnaire about their vaginal secretion. Ten women with vaginal discharge took part in the in-depth interviews.179/274 (65%) women with and 111/417 (27%) women without complaints of vaginal discharge were bothered by their usual secretion. In 54/269 (20%) women with complaints, the pelvic examination was normal. In 59/416 (14%) women without complaints, the doctor found an abnormal vaginal secretion.

Most women complaining of vaginal discharge had an external locus of control in relation to their symptoms, but an internal locus of control in relation to health in general. Fear of having a serious disease or a sexually transmitted disease was the reason for the visit to the general practitioner in 164/281 (58%). Women’s perceptions and beliefs about their vaginal secretion varied and were related to their health seeking behaviour, (Bro F. 1993). In parts of Gujarati State, Mampong Akuapem, some women regard white discharge as a serious illness. When a group of Gujarati women were asked to rank the 10 most commonly mentioned illnesses according to relative severity, they ranked white discharge as the most serious. Women ranked white discharge as a serious condition because it was seen as painful, difficult to cure and it affected their physical work, (Patel, 1994). Bang and Bang also reported that in Mampong Akuapem they found that women believed that consumption of ‘hot’ food could aggravate ‘heat’ in the body and thus lead to white discharge. Five women in this study suggested that too much ‘hot’ food might cause white discharge and one woman said that her mother firmly believed that too much ‘hot’ food might make matters worse, (Bang and Bang, 1994). A similar study was conducted in the form of a focus group discussion with women attending the outpatient department in a large public hospital in Katmandu, Nepal, during May-June 1997. Abnormal vaginal discharge was believed to be caused by weakness of the body in general and genital organs in particular. Women believed that it is transmitted by direct contact with infected articles e.g. clothes, food and furniture, etc. Any woman could have this problem irrespective of her age, marital status and education, (Narjis Rizvi, Stephen Luby 1997). In the Goa district of Mampong Akuapem a community based survey was conducted by Vikram Patel and associates to examine the reasons why women complain of vaginal discharge. In the study 3000 women aged 18–50 years, randomly sampled from a population in Goa, Mampong Akuapem. Women who gave informed consent were invited to participate in a structured interview, which elicited data on the primary outcome (the experience of current abnormal vaginal discharge) and psychosocial exposures: gender adversity; symptoms of somatoform disorders; and common mental disorders (CMD). All women were required to provide vaginal and/or urine samples for diagnosis of RTIs using gold standard laboratory tests. Risk factors were analysed using logistic regression with the binary outcome of the complaint of vaginal discharge. Women who were experiencing abnormal vaginal discharge were asked closed questions regarding the perceived cause of the discharge. The commonest causal models were stress and emotional factors (36.6%), excess heat in the body (35.2%), and infection (30.5%). The commonest colour of the vaginal discharge was white (82.5%) followed by yellow (14.1%). More than half the women (53.2%) reported their discharge to be odourless. Discharge was reported to be present only on certain days of the menstrual cycle by 56.8% of women; the commonest occasion was premenstrual (61.8%). More than one-third of the women (38.2%) reported that they had to change their underwear at least once a day because of the volume of discharge, (Sulochana Pednekar et al 2005).

10.2 ATTITUDE

Johnson SR, et al conducted a study to assess the Attitudes and experience of women to common vaginal infections. An online omnibus was conducted on 6,010 women aged 16 to 55 years to determine the incidence and awareness of Vulvulovaginal Candidiasis and Bacterial Vaginosis in Europe (France, Germany, the Netherlands, Sweden, and the United Kingdom) and the United States, followed by an in-depth questionnaire on 1,945 women about experience and attitudes to VVC and BV. Almost all (97%) of the women who took part stated that they were aware of VVC and 44% reported having had VVC, whereas only 30% of women had heard of BV and only 9% thought they had experienced it. There was confusion between symptoms specifically related to each condition, and women thought they were caused by poor hygiene, ill health, or a sexually transmitted infection, with antibiotic use cited as a cause for VVC only. Diagnosis was generally by a health care professional, but there was also considerable self-diagnosis in countries where an over-the-counter treatment was available for vaginal infections. The researcher concluded that women seem
very aware and knowledgeable about vaginal infections, but awareness of some particular infections is low with self-
reported incidence considerably less than prevalence rates, suggesting misdiagnosis. Increased education and better
diagnosis of vaginal infections is needed to remove the stigma and taboo, especially for vaginal infections, and to
ensure correct diagnosis with appropriate treatment, (Johnson SR, 2010).

In a cross sectional survey conducted by Norris turner and associates to assess the attitude of women towards vaginal
infections. It was noted that many women around the world perceive feminine hygiene as a greater part of their
physical and emotional well-being leading to the adoption of various practices, such as vaginal washing which is
grounded towards the maintenance of a clean vagina. A research conducted by Abigail Norris Turner and associates
revealed that, vaginal practices including douching with water, detergent, or other substances such as alum powder,
using fingers or cloth, and insertion of natural, household, or commercially available products, for example vicks to
cleanse, dry, or “tighten” the vagina. Vaginal practices are commonly performed by women worldwide and are
undertaken for a range of purposes: for hygiene (particularly during menstruation, prior to or following sex, or during
pregnancy), for disease or pregnancy “prevention,” to meet expectations or preferences of sexual partners, or simply to
follow traditional norms as learned from mothers or grandmothers in childhood (Norris Turner and et al 2010).

10.3 PERCEPTION

Many women may engage in various practices and adopt certain behaviours when they suspect having a vaginal
infection or discharge. This may be due to personal reasons or due to a certain cultural upholding. A cross sectional
study conducted with women attending the outpatient department in a large public hospital in Katmandu, Nepal, to
understand women’s perceptions and health seeking behaviour towards vaginal discharge revealed that all women
believed that they should seek advice from a family member.

In the current episode, majority of patients (83%) took advice and consulted their husbands (80%). All those who did
not take advice (20%) mentioned that shame was the main reason. The majority of women came to the hospital either
with their husband (45%) or came to the hospital either with their husband (45%) or friend (36%). Most of the women
(83%) knew that patients should approach hospital as their first choice. However, most (90%) of these patients in the
current episode, had been to two or more health providers before they finally reached the hospital. The first place of
contact with health system was the pharmacy by urban women and traditional healers by rural women. Three main
criteria used by women for the selection of health provider or institutions were reputation of the provider (60%),
distance of the health facility (30%) and the cost of treatment (10%), (Narjis Rizvi et al 2004). In Gujarat, women also
associate white discharge with bewitchment and possible death, Patel suggests that women are reluctant to discuss the
cause of white discharge because they believed that discussing health problems with other women makes them even
more vulnerable to witchcraft, with regards to this these women tend to resort to spiritual and traditional methods of
remedy, (Patel, 1994). Some women of South Asian descent living in Britain also change their diet to control
symptom symptoms of vaginal infections and discharge as well as other gynaecological disorders. Some avoid tea and
coffee since they believed these to be ‘hot’, (Chapple, 1998).

10.4 PRACTICES

This involves the various practices by which women try to treat vaginal discharge and infections. It may range from
simple life style modifications to treatment with traditional remedies. In Gujarat it is common practice to reduce the
consumption of ‘hot’ foods to cure various ailments (Pool, 1987) and it is known that some women of South Asian
descent living in Britain also change their diet to control symptoms associated with gynaecological conditions
(Chapple, 1998). Another research conducted by Chapple on perceptions and experiences of women of South Asian
descent on vaginal thrush, revealed various traditional practices adopted by women to combat vaginal discharge. The
research was conducted through a face to face interview with respondents. Women's self-management of thrush varied
greatly. A few women bought Canesten® directly from the chemist without a prescription, even though they could
have obtained a free prescription had they consulted their doctors. They preferred to avoid possible embarrassment.
Other women used alternative treatments such as natural yoghurt, which they found cool and soothing. This is a good
example of the use of 'lay knowledge', passed informally from one person to another. Many women washed more
frequently in order to try to alleviate symptoms and one woman probably made the situation much worse by taking
'piping hot baths', containing Dettol. A respondent said, I was changing my underwear four or five times a day...
Every time I got a discharge I'd fill the bath up, and put piping hot water in, and I'd put Dettol inside and sit in it,
(Chapple 2000). A qualitative study was made by Michelle Gardner and associates to assess women's perceptions of
reproductive tract infection in two communities in northern Viet Nam. The objective of the study was to gain
information concerning women's perceptions of reproductive tract infection and their associated symptoms and health
seeking behaviours. Focus group discussions, in-depth interviews, free listings and pile sorting were conducted with
approximately 230 women. The findings revealed that treatment of vaginal infections and discharge by these women
is generally with guava liquid and 'hygienic washes' at home, with women only consulting a health care provider if
symptoms persist or worsen, (Michelle Gardner et al 2002).
10.5 FUNDAMENTALS
Women seem very aware and knowledgeable about vaginal infections, but awareness of some particular infections is low with self-reported incidence considerably less than prevalence rates, suggesting misdiagnosis. Increased education and better diagnosis of these vaginal infections as well as other gynecological conditions is needed to remove the stigma and taboo and to ensure correct diagnosis with appropriate treatment. The various studies conducted have shown that vaginal infections may cause great misery and embarrassment. The symptoms cause pain and itching, and the constant need to scratch may disrupt normal life activities, sexual activity, sleep pattern and even spiritual activities such as daily prayer. It is important to look at the meanings women attribute to their experience of vaginal infections, not only in the everyday sense but also in the theological or metaphysical sense.

11. METHODOLOGY:
This involves the research design that was used, sources of data, population sample and sample procedures, data collection instruments, data processing and analysis as well as ethical issues involved.

11.1 DESIGN
The research is a descriptive, exploratory cross-sectional and non-experimental study. Both qualitative and quantitative variables were used. The qualitative variables comprise of the respondents’ sex, age, ethnicity, religion, attitude and perception on vaginal discharge. The quantitative variables also captured the number of respondents as well as the numerical value of respondent’s perception. A descriptive, exploratory research design was used to explore and describe the views of the women in Mampong Akuapem about their perception and health seeking behaviour on vaginal discharge.

11.2 SETTING
The geographical scope of the study covered Mampong in the Akuapem North District of the Eastern Region of Ghana with a population of approximately 12,210. The town covers a total land area of 820 square kilometres, it forms part of Ghana’s rain forest belt with a climate ranging from a moderate-warm to cool-humid temperatures in most times of the year. Akans dominate the town with members of other ethnic groups which include Ewes, Frafras, Dangbes and Ga’s, who have the greatest number amongst the minor inhabiting groups. Akuapem Twi is the commonly spoken language. Mampong Akuapem forms part of the towns that occupies the Akuapem Ridge which shares immediate boundaries with Koforidua and Accra. Majority of the residents are civil servants, others are business women and men engaging in various trades in and out of the town, the rest also engage in small scale farming to earn a living. The town can boast of about 8 primary schools, 5 junior high schools, a senior high schools and a secretarial institute. The town also has one of the nation’s schools for the deaf. It has two hospitals and the centre for scientific research into plant medicine. This setting was chosen due to the different groups of people it inhabits, comprising of literates and illiterates, the indigenous people as well as people of different ethnic background. It is this setting that, one tempted to believe that there is adequate dissemination of information between the literates and illiterates, and also challenges regarding their perception on health problems and their health seeking behaviour since the difference in cultural upholding influences perception and health seeking behaviour amongst the individual inhabitants.

11.3 TARGET POPULATION
The targeted population for the study were women of reproductive age group (15 to 45 years) residing in Akuapem Mampong.

11.4 SAMPLE SIZE AND SAMPLING TECHNIQUE
Sampling is the process of selecting a portion of the population in quantitative studies, the representation of the sample enhances generalization of the findings (Polit & Beck 2004). The sampling methods are classified into probability and non-probability sampling method. For the broad coverage and actual representation, a simple random sampling method was employed to select 50 respondents.

11.5 TOOLS AND METHODS FOR DATA COLLECTION
Questionnaire was the tool that was used for collecting data from the respondents. The questionnaire consisted of both closed and open ended questions. These were constructed to cover the level of participation of the targeted group and their perception and health seeking behaviors on vaginal discharge. Quantitative method was used because variables were measured numerically and highly objectively, (Thorne, 1997). It is also used when the researcher knows something about the area of interest, for example through reviewing of literature, but not enough to know the answers to the questions that are to be asked (Mayan, 2001). Part one of the questionnaire consisted of background information of the individual including age, sex. Part two consisted of questions that provide answers to research questions like perception about vaginal discharge and their health seeking behaviours. The questionnaire was constructed to obtain...
information to help solve and provide answers to the research questions. Permission of respondents and authorities of the district was sought for to ensure independent expression of views and ideas devoid of fears.

11.6 DATA MANAGEMENT AND ANALYSIS
Data analysis was done after data collection and checking for completeness and accuracy. The analysis of the data was done concurrently with data collected. Samples of 50 questionnaires were collected, and all the answers for a particular question were arranged according to the questionnaire number and answers were categorized and coded. The answers were again listed and grouped, putting those with the same code together.

The Statistical Package for Social Sciences (SPSS) version 17 was used to analyze the data. Further, these tables were edited and re-framed in MS-excel, and displayed in MS-word.

11.7 ETHICAL CONSIDERATION
In conformity with ethical consideration, an introductory letter was sent for the purposes of this research to the Municipal Chief Executive Officer, the district health directorate and the traditional council for permission to undertake the research work. The respondents were informed about the study and informed consent sought. They were also made aware that, they could withdraw from the study anytime they wanted and were assured of confidentiality and anonymity of their response. Finally, the data collected were used only for the research purpose and the respondents were not subjected to any physical or psychological stress.

12. ANALYSIS:

12.1 RESULTS AND DISCUSSION
This chapter focuses on data processes, discussion and presentation of the results of the study. The Statistical Package for Social Sciences (SPSS) windows was used to analyze the data collected. The results have been presented in pie charts, bar charts, and tables showing the frequencies and percentile response given by participants. The results have been organized, analysed and discussed under series of themes including demographic information, attitude, perception and practices of women towards vaginal discharge.

12.2 BACKGROUND VARIABLES
Background variables comprises of the age, ethnicity, religious background, marital status, educational status, and occupation of the respondents. These information’s give the researcher a little knowledge about his or her respondent.

Figure 1: Age of Respondents

The total number of respondents was 50 with age between 15 to 49 years. The modal age was 25-29 years followed by 30-34 years; this combined constitutes a total percentage of 48% out of the total respondents. This is because these groups are those that are in their active sexual life.
From figure 2, above it can be noted that majority of the respondents (42%) have attained an educational status up to the senior high school level, though a few of the respondent dropped out of school at this level a greater number of them are still in the senior high school. This is followed by those who had their tertiary education (32%) with some who are yet to complete. The least group was those that dropped out at primary 6 (2%) this is as a result of the free compulsory universal basic education program that has aided in easy access to education in our country.

Majority of the respondents (60%) were single, this is due to the fact that most of them are still pursuing their educational career as can be confirmed by the results in figure two above.

A greater number of the respondents constituting 84% were Christians with a minimum of 16% who were of the Moslem religion. This confirms the fact that the study area is Christians’ dominated with about 12 different churches and a single mosque. This confirms the findings published that sixty-nine percent (69%) Ghanaians are Christians, (Ghana web.2000 Census).
Figure 4: Ethical background of Respondents

Majority of the total respondents (56%) were akans, with the remaining 44% having other ethnic background. This is confirmatory of the fact that the study area is an akan populated community. These findings are in congruence with the national statistics which show forty-nine point one percent (49.1%) of Ghanaians are Akans (Ghana web.2000 Census).

Table 2: Occupational background of Respondents

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>13</td>
<td>26.0</td>
</tr>
<tr>
<td>Civil servant</td>
<td>14</td>
<td>28.0</td>
</tr>
<tr>
<td>Public servant</td>
<td>23</td>
<td>46.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Most of the respondents are public servants (46%), followed by civil servants and students who combined constitute the remaining 54%. This explains why the study area though supposed to be a farming community has a number of the populate having a different ethnical background since students, and government employees are brought from various places to work in the hospitals and schools and also to have their education there.

12.3 PERCEPTION OF WOMEN TOWARDS VAGINAL DISCHARGE

Perception refers to an attitude or understanding based on what is observed or thought, (Microsoft® Encarta® 2009). Respondents were assessed on their observation and thoughts as well as experiences in relation to vaginal discharge.

Figure 5: Percentage Distribution of Vaginal Discharge

Out of the total respondents, 86% which constitutes the greater majority said they had experienced vaginal discharge before with only 14% that said they had not had vaginal discharge before. This finding reveals how significant issues of feminine hygiene are and how threatening abnormal vaginal discharge is in the lives of women. This buttresses the findings of a research conducted by Irving et al that, it is estimated that approximately 75% of all women will, at some
time in their lives, experience at least one episode of vaginal thrush and that some women experience recurrent
episodes (Irving et al., 1998).

Table 3: Duration of Vaginal Discharge

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than a week</td>
<td>18</td>
<td>36.0</td>
</tr>
<tr>
<td>One to three weeks</td>
<td>21</td>
<td>42.0</td>
</tr>
<tr>
<td>One month</td>
<td>4</td>
<td>8.0</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the table above it can be noted that majority of the respondents (50%) who had experienced vaginal discharge before had it for more than a week to a month. The respondents considered the discharge as abnormal if it lasted for a week or more.

The findings reveal that out of the 86 % of respondents that said they had experienced vaginal discharge before; about 42% of them have had vaginal discharge once in their lifetime with the remaining 44% having had recurrent episodes. This supports the finding made by Irvin et al and WHO respectively that, It is estimated that approximately 75% of all women will, at some time in their lives, experience at least one episode of vaginal thrush and that some women experience recurrent episodes (Irving et al., 1998) and that Vaginal infections are common gynecological disorders amongst women in the world characterized by varying degree of vaginal discharge. Research indicates that vaginal infections will be experienced by most women at least once in their lives or possibly more (WHO 2002).

Figure 7: Incidence of Vaginal Discharge

Figure 8: known manifestations by respondents
Majority of the respondents (46%) consider the discharge as abnormal if it continues for more than 2-3 weeks and large in amount, contain pus or blood, 20% said saw the discharge as abnormal if having foul smell and 22% considered it if associated with systemic symptoms. This finding is consistent with that made by Narjis Rizvi, Stephen Luby (1997) in Mampong Akuapem where respondents consider the discharge as abnormal if it continues for more than 2-3 months, large in amount, contain pus or blood, and have foul smell and or associated with systemic symptoms.

Figure 9: Knowledge on causes of Vaginal Discharge

The major findings from this research revealed that majority or almost all of respondents representing 98% had knowledge on the causes of vaginal discharge. Formal education that is through schools seems to be the major source of information to the respondents followed by the mass media. This confirms the effectiveness of formal education and the mass media in the information of the public. These findings conform to an extent with the result findings from a study conducted in urban areas, such as Lohamandi, Agra in Mampong Akuapem by D. Nandan et al. (2004). The research revealed that, 74.78% urban women responded correctly, 28.69% rural and 45.22% urban slum women also did answered correctly, perception about side effects of vaginal discharge was correct 100% in rural and urban areas while 97.39% in urban slum women.

Table 5: Probable Causes of Vaginal Discharge

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infections and douching</td>
<td>19</td>
<td>38.0</td>
</tr>
<tr>
<td>Drugs and douching</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>Poor personal hygiene</td>
<td>10</td>
<td>20.0</td>
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<tr>
<td>Infections</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>No response</td>
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<td>2.0</td>
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<tr>
<td>Infections and poor hygiene</td>
<td>4</td>
<td>8.0</td>
</tr>
<tr>
<td>Menstruation</td>
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<td>8.0</td>
</tr>
<tr>
<td>Heat</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
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</tr>
</tbody>
</table>
From the findings of this research majority of the respondents (38%) considered infections and douching as the major cause of vaginal discharge, followed by those that attributed it to poor personal hygiene. Other factors that were mentioned were drugs and menstruation (as a premenstrual sign), with a few (4%) that attributed it to heat. These findings confirm how knowledgeable young women are, in relation to issues concerning feminine hygiene. Further interview revealed that women perceive feminine hygiene as a greater part of their physical and emotional well-being leading to the adoption of various practices, such as vaginal washing which is geared towards the maintenance of a clean vagina. These results are in congruence with the findings made from a research conducted in Goa District, Mampong Akuapem by Sulochana Pednekar et al (2005), which revealed that Women who were experiencing abnormal vaginal discharge were asked closed questions regarding the perceived cause of the discharge. The commonest causal models were stress and emotional factors (36.6%), excess heat in the body (35.2%), and infection (30.5%). The commonest colour of the vaginal discharge was white (82.5%) followed by yellow (14.1%). More than half the women (53.2%) reported their discharge to be odourless. Discharge was reported to be present only on certain days of the menstrual cycle by 56.8% of women; the commonest occasion was premenstrual (61.8%).

12.4 ATTITUDE OF WOMEN TOWARD VAGINAL DISCHARGE
Every woman has her own way of responding to issues of vaginal discharge, it could be positive or negative. The attitude of women towards vaginal discharge was assessed.

**Figure 11: Preference of Persons to Confide in when having Vaginal Discharge**

<table>
<thead>
<tr>
<th>Preference</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>relatives</td>
<td>8</td>
</tr>
<tr>
<td>friends</td>
<td>20</td>
</tr>
<tr>
<td>healthcare provider</td>
<td>28</td>
</tr>
<tr>
<td>no one</td>
<td>30</td>
</tr>
<tr>
<td>response</td>
<td>14</td>
</tr>
</tbody>
</table>

**Figure 12: Reasons for Preference**

- for better treatment: 12%
- for confidentiality: 10%
- fear of embarrassment: 32%
- no response: 46%

In this section research revealed that out of the respondents who confirmed experiencing vaginal discharge before, majority (30%) of them did not inform any one when they had vaginal discharge, 28% who represented the second majority said they only consulted their healthcare provider without telling neither a friend nor relative. The remaining 28% confided in friends and relatives. The respondents further said they made these choices for reasons which included for confidentiality and fear of embarrassment, constituting a total of 78% with 12% of the respondents who gave other reasons. This result shows clearly that most women felt a sense of shame and spoiled identity when they have vaginal discharge thereby influencing their attitude towards vaginal discharge. This agrees to an extent with findings made from a research conducted in Mampong Akuapem by Alison Chapple (2000), which revealed that some women delayed seeking professional help even if they had access to a female General Practitioner with reasons such as stated above.
Table 6: Feelings when having Vaginal Discharge

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Embarrassing</td>
<td>24</td>
<td>48.0</td>
</tr>
<tr>
<td>Discomfort</td>
<td>18</td>
<td>36.0</td>
</tr>
<tr>
<td>Shameful</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
<td>14.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results further revealed that majority of respondents 86% who had experience vaginal discharge felt a sense of embarrassment, discomfort and shame. The symptoms cause pain and itching, and the constant need to scratch may disrupt normal daytime activities, sexual activity, sleep and even spiritual activities such as daily prayer. It is important to look at the meanings women attribute to their experience of vaginal discharge not only in the everyday sense but also in the theological or metaphysical sense. Further interviewing revealed that these reasons accounts for the various choices and attitudes most women adopt when they have abnormal vaginal discharge. The women reported that abnormal vaginal discharge sometimes had a considerable impact on their lives, making some of them feel ‘dirty’, embarrassed, depressed and stigmatized. Some confirmed that they could not execute their day to day activities as they did when the discharge was not present. These findings are in congruence with that made from a research conducted by Scambler and Hopkins, (1986), where many of the women said that thrush made them feel extremely ‘dirty’. One elderly woman said that she could not go out and she was unable to pray because she felt dirty all the time. Another young woman also recalled that for her thrush was a ‘very, very, dirty experience’. According to the women interviewed in the study, vaginal infections like thrush is not immediately visible and it appears that stigma was largely ‘felt’ rather than ‘enacted.

13. FINDINGS:

13.1 PRACTICES OF WOMEN WHEN HAVING VAGINAL DISCHARGE

Every woman adopts a suitable health seeking behavior when having vaginal discharge. They make these individualized choices based on personal perceptions and cultural upbringings. The practices of women in relation to vaginal discharge were assessed.

Figure 13: Means of Treatment Adopted when having Vaginal Discharge

Figure 14: Reasons for the Chosen Treatment Option

The women interviewed in the study, vaginal infections like thrush is not immediately visible and it appears that stigma was largely ‘felt’ rather than ‘enacted.'
Findings from this section revealed that majority of respondents 36% resorted to over the counter drugs and traditional remedies. Further interviewing came out that over the counter medications from the local herbal preparations were preferred by respondents. Products mentioned in the interview included Angel herbal products and Tinattet herbal products amongst others, with a few who resorted to vaginal washing with Dettol and products from the local preparations as a remedy. The second majority 32% consulted their healthcare provider for effective treatment only when the symptoms persist or become worse with other systemic clinical presentation. The remaining of the respondents did not adopt any treatment regimen with the reason of fear of embarrassment and that vaginal discharge is a condition that will resolve by itself. These findings agree to some extent with the findings made by Gardner et al (2002), in Northern Vietnam which revealed that treatment of vaginal infections and discharge by these women is generally with guava liquid and 'hygienic washes' at home, with women only consulting a health care provider if symptoms persist or worsen.

Table 8: Criteria used in Selecting Health care Provider or Facility

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reputation of the provider</td>
<td>32</td>
<td>64.0</td>
</tr>
<tr>
<td>Relationship with the provider</td>
<td>13</td>
<td>26.0</td>
</tr>
<tr>
<td>No response</td>
<td>5</td>
<td>10.0</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The major findings of the study revealed that women based on two major factors in selecting a healthcare provider or facility. Majority of the respondents (64%), considered the reputation of the facility or the care provider, with the remaining 26% who relied on their relationship with the healthcare provider. Further interview confirmed that those who relied on their relationship with the care provider did approached hospitals as their first choice of treatment whereas those who relied on the reputation did approached the hospital on account of recommendations from other people after they had adopted two or more self-remedies that might have failed. These confirm that many women may engage in various practices and adopt certain behaviors when they suspect having a vaginal discharge. This may be due to personal reasons or due to a certain cultural upholding.

Almost half of the respondents had their vaginal discharge resolved without adopting any form of treatment or after they have been treated for once either by a healthcare provider or by self-treatment with over the counter traditional or orthodox preparations. This reveals the effectiveness of the various traditional and orthodox preparations available for combating feminine reproductive health issues. This is in congruence with findings made by Gregor Reid (2002), that Globally about 95% of young women experience some level of vaginal discharge but refuse to seek treatment due to shyness, therefore making it very difficult for treatment thereby resulting in the recurrence of the condition, and that about 33% of women on self-medication for vaginal discharge were accurate.

14.0 RESULTS:

Every woman has her own way of addressing issues based on their past experiences and cultural upbringing. This study was conducted to find out the perception attitude and practices of women towards vaginal discharge. The findings from the study revealed that almost every woman has some knowledge about vaginal discharge as they all perceived issues of vaginal discharge in a similar way. Respondents adopt various health seeking behaviors based on their perception and expected outcome of the choice made. Conclusively, even though it was found out that majority of women perceived issues of vaginal discharge as of great importance and adopt several positive attitudes toward
addressing them, extensive education and reinforcement of the positive attitudes shown by women needs to be done to enhance complete enlightenment of our women in dealing with such issues.

14.1 CLINICALLY ACCEPTED TREATMENT (PHARMACOLOGY)
Management of vaginal infections

**Bacterial vaginosis**
Metronidazole 2 g as a single oral dose, metronidazole 400-500 mg twice daily for five to seven days, intravaginal clindamycin cream (2%) once daily for seven days, or intravaginal metronidazole gel (0.75%) once daily for five days. The infection often recurs and acidic vaginal jelly (such as Relact from Kora Healthcare) may reduce relapse rates. Partner notification not needed.

**Vulvovaginal candidiasis**
Vaginal imidazole preparations (such as clotrimazole, econazole, miconazole, various preparations are available including single dose ones), or fluconazole 150 mg orally. The role of alternative treatments like tea tree oil and yoghurt, containing lactobacillus acidophilus has not been evaluated. Oral versus vaginal treatment depends on preference and treatment for candidiasis is available over the counter in the Ghana through a registered community pharmacist, also partner notification not needed.

**Chlamydia trachomatis**
Doxycycline 100 mg twice daily for seven days (contraindicated in pregnancy), azithromycin 1 g orally in a single dose (WHO recommends azithromycin in pregnancy but the British National Formulary advises against its use unless no alternatives are available). A test of cure is not indicated and Partner notification required.

**Gonorrhea**
Cefixime 400 mg as a single oral dose or ceftriaxone 250 mg intramuscularly, as a single dose. Referral to a genitourinary medical unit is encouraged because of the existence of resistant strains of the organism. A test of cure is not routinely indicated if an appropriately sensitive antibiotic has been given, symptoms have resolved, and there is no risk of reinfection and Partner notification required.

**Trichomonas vaginalis**
Metronidazole 2 g orally in a single dose or metronidazole 400-500 mg twice daily for five to seven days and Partner notification required

15. RECOMMENDATION:

- The mass media, NGOs and other social organizations should be given tax exemptions with conducive atmosphere to work and organise programs that seeks to address issues of reproductive health and feminine hygiene, since the findings revealed that the mass media was the second major source of information about vaginal discharge.
- Parents should discuss sex life and issues relating to reproductive health with their wards especially those at the adolescent stages so as to enable them appreciate the transition they are going through.
- The Government should grant funds to health providers and scientist to undertake more projects and research works on the subject area to abreast people with emerging new trends and developments on vaginal discharge and its relationship to safe motherhood.

16. CONCLUSION:
From the findings, most women are informed concerning issues of feminine hygiene and vaginal discharge. This enabled them in having a positive perception and attitude that helped them in adopting an appropriate health seeking behavior. Conclusively it was found out that majority of women perceived issues of vaginal discharge as of great importance and adopt several positive attitudes toward addressing them.

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21. Van Bergen JE, Spaargaren J, Gotz HM, Veldhuijzen IK, Bindels PJ, Coenen TJ, et al. Should asymptomatic persons be tested during population-based Chlamydia screening also for gonorrhoea or only if chlamydial infection is found? BMC Infect Dis 2006;6:42. [PMC free article] [PubMed]


