

# Knowledge, Awareness, and Perception of Sexually Transmitted Diseases Among Women in Sana'a City

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## Abstract

**Background:** Sexually transmitted diseases (STDs) are major global causes of acute illness. Knowledge and awareness of women regarding the sexually transmitted disease and complications are important for prevention and prompt treatment seeking.

**Aim:** To assess knowledge, awareness, and perception of women about STDs.

**Methods:** A total of 300 women were selected and interviewed at their visit for an antenatal clinic in maternal and child health centers. A pre-designed questionnaire was used to collect information from the respondent. The explanation had been given and verbal consent was obtained from the respondent. Each woman was interviewed and the questionnaire was completed.

**Results:** The results showed that the majority of the respondents (99%) know about HIV/AIDS, followed by Gonorrhea (52%) but very few knew about Chlamydia (10%). Recognized causative agent was microbes reported by most of the respondents (65%). Vaginal discharge was the most identified symptom by the respondents (63%), followed by lower abdominal pain 49%. The commonest risk factor recognized by the respondents was poor hygiene (80%) followed by blood transfusion (75%). Chronic pelvic pain, Infertility in women, fetal death, congenital abnormalities of fetus and abortion (55%, 51%, 51%, 50% and 46%) respectively were the consequences of STDs perceived by respondents. Only 43% of respondent mentioned antibiotics as a treatment for STDs, 16% believed in herbal treatment, while 34% believed that there is no effective treatment while 21% didn't know any treatment. The top knew preventive measures were Abstinence (93%), followed by mutual fidelity (75%) then the use of condom for infected cases (44%).

**Conclusion:** STDs knowledge among women needs to be promoted. Strengthening health education program is required.

**Keywords:** Sexually Transmitted Diseases; Knowledge; Awareness; Perception; Yemen.

## Introduction:

The WHO stated that in developing countries STDs and their complications are amongst the top five disease categories for which adult seek health care. In women of childbearing, STDs (excluding HIV) are second only to maternal factors as causes of disease, death and health life loss. More than one million people acquire a sexually transmitted infection (STI) every day. Each year, an estimated 500 million people acquire 1 of 4 STDs:

gonorrhea, syphilis, chlamydia and trichomoniasis. More than 530 million people are living with Herpes simplex virus 2 (HSV2). More than 290 million women have a human papillomavirus (HPV) infection, one of the most common STDs. In addition, more than 290 million women have an HPV infection<sup>1</sup>. STDs if left untreated, can progress to serious reproductive and other health problems with both short-and long- term consequences. STDs affect men and women but the problem can be severer for

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women<sup>2</sup>. Some of these STDs, when not controlled, can lead to severe complications<sup>3</sup>. Some of the diseases may result to genital ulcers, with few cases developing severe sacral dysfunction resulting in urinary retention<sup>4</sup>. Consequences of these STDs include AIDS, spontaneous abortions, stillbirths, perinatal and neonatal morbidities, chronic pelvic pains, dyspareunia, infertility, increased risk of ectopic pregnancy and even death<sup>5</sup>. STDs are preventable diseases and their prevention is even a priority for WHO<sup>6</sup>. For adequate prevention, sound knowledge of the disease is very crucial. Knowledge of STDs complication may play an important role in encouraging safer sexual behaviours<sup>7</sup>. Implementation of an effective program for prevention of STDs require an understanding of community and women perception and knowledge about STDs; such information would enable the development of a program that promotes culturally sensitive and acceptable change in behavior.

### **Aim of the study**

To assess knowledge, awareness, and perception of women about STDs.

### **Subjects and Methods**

A cross-sectional descriptive study was carried out to assess knowledge and awareness about STDs among women during their visit to an antenatal clinic in maternal and child health center, Sana'a city-Yemen from October 2015 to June 2016. The sample size was calculated using EpiCalc software program based on the prevalence of STDs knowledge in Tanzania is 24%<sup>7</sup>, Precision is 5% and, then the minimum required sample size is 280 women at 95% confidence interval. In order to account for nonresponse and achieve the reliable and precise result, the investigator increased the sample size to 300 women. Women were recruited and interviewed by random sampling at their visit for an antenatal clinic in maternal and child health center.

A pre-designed Arabic questionnaire was utilized for data collection. The questionnaire consisted of three sections,

the first section includes information about socio-demographic characteristics of the participants. The second section is to assess their knowledge and awareness regarding STDs including types, causative agent, symptoms of STDs, risk factors, consequences, treatment, and preventive measures of STDs. Section three included questions about the source of information.

Experts of different related specialties and having interest in the subject were consulted in constructing the questionnaire. A pilot study was implemented on 20 women from the selected health center. The pilot study helped to test the understanding of the women of the questionnaires and modify it accordingly, to determine the time needed to answer a questionnaire.

Verbal consents were obtained from each participant to voluntarily participate in the study and data were treated confidentially and used only for the purpose of research. Each woman was interviewed and the questionnaire was completed. The data were verified by hand then coded and entered into a personal computer. SPSS software statistical program version 18 was utilized for data entry and analysis. Descriptive statistics (Number and percents) were used for analysis categorical data.

### **Results**

#### **Socio-demographic characteristics**

Table 1 shows that minority (21%) of the women above 35 years age. Most of them had education secondary or above 56%. Most of the women were housewives 59%, had sufficient income 82% and resident urban were 85%. Placenta

Table 1: Socio-demographic characteristics of respondents

Socio-demographic Characteristics	No	%
<b>Age (Year)</b>		
15 – 24	120	40
25 – 34	117	39
35 above	62	21
<b>Marital status</b>		
Married	259	86
Divorced or widow	41	14
<b>Education</b>		
≤ Basic education	133	44
≥ Secondary education	167	56
<b>Occupation</b>		
Employee	83	28
Housewife	157	55
Others	40	13
<b>Income</b>		
Sufficient	246	82
Insufficient	54	18
<b>Residence</b>		
Urban	256	85
Rural	44	15

Knowledge, awareness, and perception about types of STDs:

Figure 1 shows that the majority of the respondents 298 (99%) know about HIV/AIDS, followed by Gonorrhea 156 (52%) but very few knew about Chlamydia 31(10%).

General knowledge, awareness, and perception about STDs:

Table 2 indicates that the recognized microbes as causative agents were reported by most of the respondents 65%. Vaginal discharge was most identified symptom by the respondents 63%, followed by lower abdominal pain 49%. The commonest risk factor recognized by the respondents was poor hygiene 80% followed by blood transfusion 75%, while 20% of respondents mentioned that they didn't know risk factors. Chronic pelvic pain, female infertility, fetal death, congenital abnormalities of

fetus and abortion were the consequences of STDs perceived by respondents 55%, 51%, 51%, 50% and 46% respectively, while 22% didn't know STD consequences.

Knowledge, awareness, and perception about the treatment of STDs:

Figure 2 shows that only 129 (43%) of respondents mentioned that antibiotics as a treatment for STDs, 47(16%) believed in herbal treatment, while 103 (34%) believed that there is no effective treatment and 62 (21%) didn't know any treatment.

Knowledge, awareness, and perception about preventive measures of STDs:

Figure 3 indicates that the top awareness about preventive measures was abstinence 278(93%), followed by mutual fidelity 224 (75) then the use of condom for infected cases 134 (44%) and others 38 (13%).

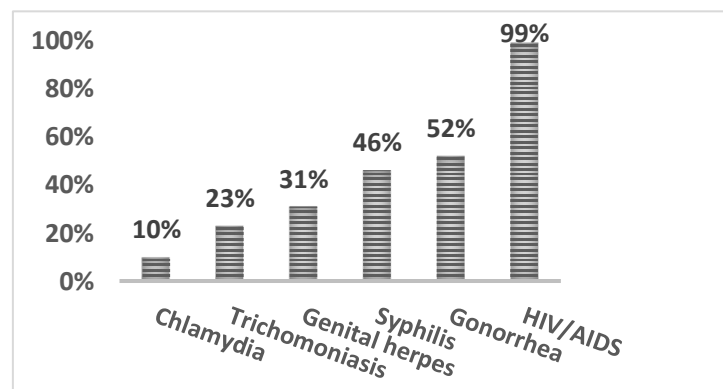


Figure1: Knowledge, awareness, and perception of women regarding types of STDs

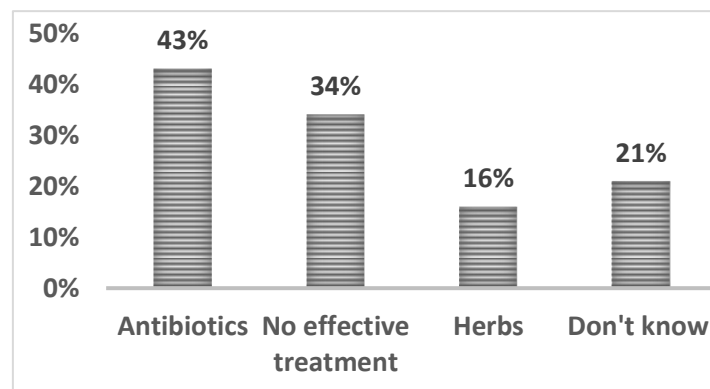


Figure 2: Knowledge, awareness, and perception of women regarding treatment of STDs

Table 2: General knowledge, awareness, and perception of women regarding STDs

Aspects of STDs knowledge	No	%
<b>Causative agent</b>		
Microbes	195	65
Witch craft	21	7
Others	40	13
Don't know	31	10
<b>Symptoms</b>		
Pain during urination	106	35
Vaginal discharge	189	63
Vomiting	44	15
Headache	40	13
Ulcer in the genital area	92	31
Lower abdominal pain	147	49
Itching at the genital area	92	31
Pain during	123	41
<b>Risk factors</b>		
Poor hygiene	240	80
Blood transfusion	225	75
Sexual abuse	213	71
Drug abuse	54	18
Use of sharp objects	195	65
Don't know	6	12
<b>Consequences</b>		
Infertility in women	153	51
Cancer	39	13
Chronic pelvic pain	165	55
Ectopic pregnancy	59	20
Abortion	136	46
Congenital abnormalities of fetus	150	50
Death of fetus	154	51
Don't know	60	20

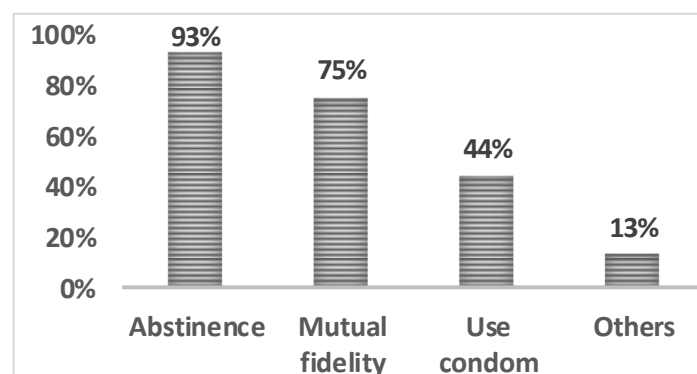


Figure 3: Knowledge, awareness, and perception of women about preventive measures of STDs

## Source of information about STDs

The table 3 showed that the majority of the respondent (87%) stated that they acquire information from T.V. followed by Media technology (56%). Personnel as a source of information were relatives, neighbors, and friends (36%), physician (32%), the least mentioned were nurses 9%.

Table 3: Source of information about STDs (N=300)

Source of information	No	%
<b>Media exposure</b>		
T.V	261	87
Radio	112	37
<b>Media technology</b>		
Brochure, pamphlets, newspaper, journal, and the Internet	169	56
<b>Personnel</b>		
Physician	79	32
Nurses	27	9
Relatives, neighbors, and friends	108	36
School staff	75	25
Others	20	7

## Discussion

Knowledge and awareness of women regarding the STDs are important for prevention and prompt treatment seeking behavior.

Our study indicated the knowledge of STDs ranging between 10% and 99% with mean knowledge (43.6%). In Tanzania, the prevalence of STI knowledge is very low (24%)<sup>7</sup> and in Nepal, the knowledge about STI is low (about 40%)<sup>8</sup>. Also in Nigeria, 62% of young women lack knowledge of STIs<sup>9</sup>. The results of the study indicated that knowledge of HIV/AIDS is global among people regardless of all demographic profiles 99% of the women were aware of HIV/AIDS. Several studies revealed congruent results<sup>10,11,12</sup>.

HIV/AIDS is widely known may be due to government and non-government organization efforts to increase public awareness and wide publicity of HIV/AIDS in mass media.

The second best-known STDs in this study were syphilis and gonorrhea 56%, 46% respectively. The results are

agreeable with Lande<sup>13</sup> finding that gonorrhea and syphilis are almost known. In our study, Chlamydia was the least known STDs in this regard the results are similar with the study results conducted by Obiechina et al <sup>14</sup>.

The most perceived causative agent among respondents of our study was microbe 65% this result is agreeable with other study<sup>15</sup>.

In this study, the most identified symptoms were vaginal discharge with odors followed by pain during urination; conversely Nwabueze, et al.<sup>16</sup> who found that pain during urination was the most known symptoms that were followed by vaginal discharge with odors. Poor hygiene was the most mentioned risk factor by (95%) of our respondents, in contrasts with Nwabueze et al.<sup>16</sup> findings (4.8%). Regarding the consequences of STDs chronic pelvic pain and infertility mentioned (55% and 51%) of our respondents respectively, these findings were accordant with the results of Nwabueze et al.<sup>16</sup>.

Though most of the women in our study knew the type of STDs and their knowledge of treatment was poor. The most recognize treatment was antibiotic presented by 43% of women the result are less than that in Obichina et al.<sup>14</sup>. 16% of the women believed in herbs as a treatment for STDs which is a normal practice in developing countries, many patients seek treatment at herbalist and traditional healer. Temin et al.<sup>17</sup> found that respondents would other seek treatment from a traditional herbalist. Erroneously 34% of the women believed that there is no effective treatment for STDs such belief delay seeking treatment and lead to the development of complication along with spreading infection.

Abstinence and mutual fidelity were identified by 93% of the women as the best way for prevention of STDs that be the impact of the Islamic countries use of religion as a strategy to prevent STDs. Islamic religion prohibits non-marital relation, illegal sex, and drug addiction. Islamic rules set penalties for those indulged or involved in such activities<sup>18</sup>.

Several studies discovered the influence of following Islam rules and value on STDs prevention world health organization reported a low prevalence of HIV in Islamic countries<sup>19,20</sup>.

A Meta-analysis of studies reports on HIV/AIDs and religious affiliation revealed a negative relationship between HIV prevalence, incidence and being Muslim<sup>19</sup>.

The most common source of information among study subject was T.V which was documented by 87% of the respondents of our study, it is comparable to Nworah et al.<sup>15</sup> findings. The second common source of information was media technology presented by 56% of the women. The findings indicate that women have access to media and media technology. Hence dissemination of information to women can be enhanced through media and media technology.

The majority of our respondents 87% stated that they acquire information from T.V. followed by Media technology 56% and radio 37%. Personnel as a source of information were relatives, neighbors and friends 36% next were physician 32%, surprisingly the least mentioned were nurses accounted for 9% only, this indicate a need for a review of nurses' activities in health education for STDs. This finding is in agreement with the result of a study that was conducted in Nigeria<sup>14</sup>.

## Conclusion

We conclude that knowledge, awareness, and perception of women regarding STDs needs to be promoted. This study indicated that low knowledge, awareness, and perception of women regarding STDs. Strengthening health education program is required to create better awareness of STDs.

## Recommendations

Implementation of the program should make use of mass media and media technology that is accessible to most of the women in disseminating information. The addressing high-risk group is needed. More participation of health care professionals particularly nurses should be encouraged.

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