



Research Article

Volume-05|Issue-02|2024

Undergraduate Nursing Students' Knowledge and Attitudes, Regarding the Management of Sexual Transmitted Diseases

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Article History

Received: 06.02.2024

Accepted: 18.02.2024

Published: 25.02.2024

Citation

Amakali, K. Amungulu, J. & Emvula, O. (2024). Undergraduate Nursing Students' Knowledge and Attitudes, Regarding The Management of Sexual Transmitted Diseases. *Indiana Journal of Humanities and Social Sciences*, 5(2), 24-29.

Abstract:

Background: Sexually transmitted disease is associated with HIV transmission and affects reproductive negatively. Within a multidisciplinary approach, nurses provide health education for prevention, and screen patients with sexual transmitted diseases, and initiate treatment.**Aim:** This study aimed at determining the knowledge and attitudes among undergraduate diploma nursing students regarding syndromic presentations and the management of sexually transmitted diseases (STDs) at the University of Namibia, main campus, Windhoek.**Method:** A quantitative, cross-sectional design with a descriptive method was employed, among the study population of all 68 third year Diploma in Nursing Science students at the selected university for the 2022 academic year. Data were collected through a self-administered questionnaire from a sample of 58 respondents, sampled through simple random sampling method, analyzed using Microsoft Excel software program version 21. Descriptive statistics were generated.**Results:** The findings indicated that the respondents had average good knowledge (54.46%) versus poor knowledge (45.15% about STDs, good knowledge about management of SDTs (84.9%), positive attitude (85.52%) versus negative attitudes (15.12%) towards management of SDTs.**Conclusion:** Despite positive attitude towards management of patients with STDs, an average to poor knowledge about syndromic presentations of STDs among the respondents results into inappropriate management of STDs and the risk for complications. Therefore, the study recommended integration of the syndromic STDs management approach as recommended the WHO in the nursing curriculum.**Keywords:** Sexual Transmitted Diseases; Knowledge; Attitudes; Management

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INTRODUCTION

Sexually transmitted infections increased significantly between 2020 and 2021 and remains a global public health problem (Mayo Clinic Family Health, 2020) Namibia records higher prevalences of STDs cases annually (Ipinge & Pretorius, 2012). Nurses play a unique role regarding health education for prevention and treatment of patients with STDs. Prompt management of STDs can be realized if the nurses are equipped with knowledge on sexual transmitted disease and display positive attitudes towards management of STDs. Acquiring adequate knowledge as well as positive attitudes towards STDs among student nurses while in training would play an important role in management of STDs (Patterson *et al.*, 2019).

According to the World Health Organization (WHO) (WHO, 2021), Bacterial STDs such as Gonorrhea, Syphilis, Chancroids, Chlamydia and Parasitic Trichomoniasis are curable if treated with antibiotics according to the Guidelines for Syndromic Treatment of STDs about prompt diagnosis and initiation of treatment with existing single dose regimens of antibiotics (WHO, 2021). Subsequently, in Namibian, the guidelines by the WHO on Syndromic Treatment of STDs are available at all health care facilities for

applications by health care providers in managing patients with STDs (MOHSS, 2019) including nursing students as they too provide treatment to patients with STDs under direct supervisions of registered nurses.

Moreover, the WHO's health promotion package for the prevention of STDs including counselling, education on safer sex condom promotion and partner referrals should be applied for primary prevention of STDs (Bungay & Steven, 2013). Equally, the curriculum for the undergraduate nursing programme for Diploma in Nursing Science at the university of Namibia contains a unit on Sexually Transmitted diseases (STDs) offered in their second year of the study. Therefore, authors conducted the current study to assess undergraduate third year nursing students' knowledge of and attitudes, regarding the management of sexually transmitted diseases.

RESERACH METHODS

Study Design: A quantitative, approach cross-sectional design of descriptive method was employed.**Study Setting:** The study setting was the School of Nursing, at the University of Namibia, Main Campus, Windhoek.

Population, Sample and Sampling

The study population was 68 third year diploma nursing students at the University of Namibia, Main Campus, Windhoek for the 2022 academic year. A sample size of 58 respondents was determined using Slovin formula ($n=N/1+N(a)^2$ at 5% margin of error) and were selected through a simple random sampling and all 58 participated in the study.

Research Instrument

Data were collected using self-administered questionnaires developed by the researcher in English. The questionnaire consisted of three (3) sections on the respondents' demographic data, the knowledge and attitudes towards management of STDs. Content and face validity of the questionnaire was ensured by inclusion of items in respect of the knowledge of and attitudes health care providers toward management of STDs as derived from the literature. The questionnaire's reliability was confirmed by the Cronbach's Alpha coefficient test, which produced coefficient Alpha value of >0.7, that is indicative of the internal consistency of items on the questionnaire (De Vos *et al.*, 2017).

Data Collection Procedure

The data were collected in July 2022 during class time at the University of Namibia's Main. Purpose of the study was explained before prospect respondents granted an informed verbal consent. Respondents completed the self-administered questionnaire in the presence of the researcher. Completed questionnaires were collected and safe kept for analysis.

Data Analysis

Data was analyzed using Microsoft Word and Microsoft Excel, version 21. Quantitative descriptive statistical analyses of variables about the respondents' demographic data, their knowledge of and attitudes towards management of STDs were performed. The findings on demographic data were presented in a figure,

while the findings on the knowledge and attitudes were presented in tables of frequencies and percentages.

Ethical Consideration

Ethical clearance was obtained from the Ethical Committee for the undergraduate studies at the School of Nursing and Public Health, at the University of Namibia, Main Campus, Windhoek after review of the proposal (Reference Number: SoNEC 02/2022). Applications of ethical principles of respect for a person, non-maleficence, beneficence and justice were applied. The study purpose was explained, and verbal consent was obtained from the respondents, participation was voluntarily, privacy and anonymity were ensured during data collection, and confidentiality of the data was maintained.

There was no direct reward to the respondents, but the findings would be of benefit to relevant stakeholders in developing guidelines about management of STDs at health care facilities. Moreover, the study did not cause any harm to the respondents. Renegotiation of the informed consent was guaranteed, when necessary, and a collective debriefing of all the respondents was implemented after data collection. Random sampling method ensured that all elements of the target study population were eligible to participate in the study.

RESULTS

Socio-Demographic Data

Gender: The majority 42 (72%) of the respondents were females, while male constituted 16 (28%), of the respondents.

Age: The mean age of the respondents was 35 years and most (69%) of the respondents were in the age category of 31 to 39 years, those in the age category of 40 years and above constituted 24% of the respondents, while those in the age category of 27-30 were the least (8.6%) as displayed in figure 1.

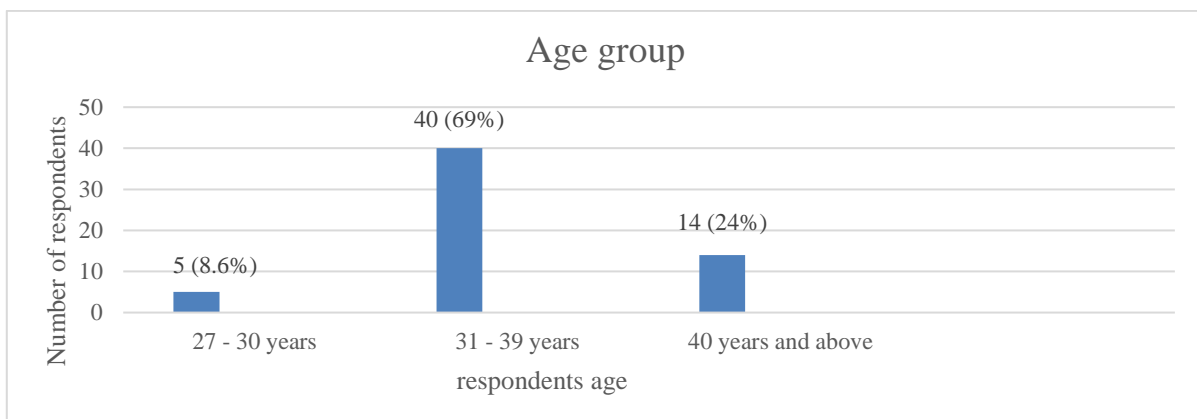


Figure 1: Age group of the respondents (N= 58)

Training on Sexual Transmitted Diseases: Out of 58 respondents, 76% (n = 44) had received training about STIs, while 24% (n = 14) never received training on STIs.

Respondents' Knowledge About STDs

The respondents were given options, to choose whether the statement is true or false about the causes, clinical manifestations, and potential complications of STDs, depending on the direction of the question.

The findings indicated that most 31 (53.4%) of the respondents were misinformed as they indicated that Trichomoniasis is a bacterial infection and only 27 (46.6%) knew that Trichomoniasis is not a bacterial

STDs; Another 33 (56.9%) did not know that Chlamydia is the most prevalent STDs in Namibia, and most 35 (60.3%) were not aware that STDs cause serious health complications, compared to 23 (39.7%) who had the correct knowledge; Majority of the respondents 52 (87.7%) were only knowledgeable that Chlamydia is a common cause of Pelvic Inflammatory Disease (PID) with subsequent risk for infertility and an average 55.2% could identify the signs and symptoms of Bacterial Vaginosis. Table 1 displays the findings on the respondents' knowledge about STDs.

Table 1: Respondents' knowledge about STDs s (N= 58)

Variable	Knowledgeable	Non-knowledgeable
1) Trichomoniasis is a STDs caused by Bacterial.	27 (46.6%)	31 (53.4%)
2) Chlamydia is the most prevalent STDs in Namibia.	25 (43.1%)	33 (56.9%)
3) Identification of the signs and symptoms of Bacterial Vaginosis.	32 (55.2%)	26 (44.8%)
4) STDs can lead to health complications that are usually more serious for men than women.	23 (39.7%)	35 (60.3%)
5) Chlamydia is a common cause of Pelvic Inflammatory Disease (PID) with sub sequential risk for infertility.	52 (87.7%)	6 (10.35)
Average	31.8 (54.46%)	26.2 (45.15%)

Respondents' Knowledge About Management of STDs

The respondents were requested to identify the correct interventions for management and to identify complications of STDs from the given choices.

The findings indicated that most 50 (86.2%) of the respondents had the correct knowledge and only 8 (13.8%) had no knowledge about the right treatment for

STDs. Only an average 32 (55%) knew the clinical manifestations of STDs, while 26 (44.8%) did not know the clinical manifestations of STDs. Majority 56 (96.6%) knew of STIs that are curable, and only 2 (3.7%) did not know STDs which are curable. Majority 47 (81%) knew that syphilis cause deafness and only 11 (18.9%) had no knowledge that syphilis cause deafness. Table 2 displays the findings on the respondents' knowledge about management of STDs.

Table 2: The respondents' knowledge about management of STDs (N= 58)

Item	Knowledgeable	No knowledge
1) Identification of the right treatment for Urethra Discharges Syndrome	50 (86.2%)	8 (13.78)
2) Majority of vaginal discharges are not STDs. Therefore, risk assessment is vital.	44 (75.9%)	14 (24.1%)
3) Selection of the STDs which is not curable with antibiotics.	56 (96.6%)	2 (3.7%)
4) Selection of the STDs that can cause deafness in its later stage if left untreated.	47 (81%)	11 (18.9%)
Average	49.25 (84.9%)	35 (15.12%)

Respondents' Attitudes Towards STDs

On the variable of attitudes, the respondents were given statements for them to indicate whether the statement was right or wrong by indicating "true" or "false" as it may imply a positive or negative attitudes towards STDs.

The findings indicated that a notable 9 (15.5%) of the respondents had negative attitudes regarding partner notification, 18 (31%) had negative attitudes towards change of medication when necessary and 13 (22.3%) had a negative attitude towards confirming urethral discharge. Table 3 displays respondents' attitudes towards STDS.

Table 3: Respondents Attitudes towards STDs management (N= 58)

The statements	Positive Attitude	Negative Attitude
1) Partner notification and referral is time consuming and anyways they might not show up.	49 (84.5%)	9 (15.5)
2) It is not necessary to replace Ceftriaxone injection with Cefixime tablets in case it is not in stock as it adds to the burden of medication to be consumed by the patient.	40 (68.9%)	18 (31%)
3) STDs patients strictly need to get Ceftriaxone IMI so they feel the pain and learn to use condoms not to contract it again.	56 (96.6%)	2 (3.4%)
4) The nurse needs to treat young and unmarried patients with STDs in a judgmental way and with a frowning face to show them it is not wise to contract STDs at that age.	58 (100%)	0 (0%)
5) It is not necessary to milk the urethra or check the discharges of patient with discharges syndrome, anyways they smell offensive and a nurse knows what discharges looks like.	45 (77.6%)	13 (22.4%)
Average	49.6 (85.52%)	8.4 (14.46%)

Respondents Attitude Towards Management of STDs

Furthermore, the respondents were asked to rate their level of agreement, using Likert’s scale on attitudes regarding the STDs management to choose either: agree, disagree, or uncertain based on the context of the statement.

The findings indicates that most 55 (94.8%) of the respondents advocated for an inviting gesture by health care providers, 40 (68.9%) were not judgmental towards client with STDs, 45 (77%) emphasized empathy towards a patient with STDs, but 31 (53.4%) were judgmental on how patients acquire STIs. Table 4 displays the findings about the respondents’ attitude towards management of STDs.

Table 4: Respondents Attitudes towards the management of STDs (N= 58)

Statements	Agree	Disagree	Uncertain
1) Assessing a patient with an STD with a smile and happy facial expression help patient to open up.	55 (94.8%)	2 (3.4%)	1 (1.7%)
2) Patients with STDs are irresponsible, and nurses need to talk about it in a serious way.	15 (25%)	40 (68.9%)	3 (5.2%)
3) Nurses need to be sympathetic during history taking of STIs and sexual taking.	45 (77%)	2 (3.4%)	4 (6.9%)
4) Probing questions to the patient are essential during history taking.	53 (91.4%)	2 (3.4%)	3 (5.2%)
5) Patients with STDs have multiple sexual partners or does not use condom.	31 (53.4%)	22 (38%)	5 (8.6%)
6) Any women of any ages presenting with vaginal discharges, should be treated for STDs.	17 (29.4 %)	38 (60.3%)	6 (10.3%)

DISCUSSIONS

The findings indicated that most of the respondents (69%) were of age group of 31 to 39 years and (76%) had received training about STDs. Thus, it can be inferred that training about STDs for the majority imply that they had the knowledge about STDs and about management of a patient with an STDs.

Respondents’ S Knowledge of STDs

The study outcome showed that the respondents had poor knowledge about STDs except average knowledge on the signs and symptoms of Bacterial Vaginosis and good knowledge that Chlamydia causes Pelvic Inflammatory Disease (PID) with subsequent risk for infertility. Poor level of knowledge about STDs among respondents of the current study is in contrary to the expectations that nurse should be knowledgeable about clinical manifestations of STDs for appropriate

treatment (Gannon-Loew, 2020; Mayo Clinic, 2020; Bell & Bray,2014). Similarly, Dela *et al.*, 2019) as well as Uchenna, Govender (2018) emphasize that health care providers should be cognizant that sexual transmitted diseases place individuals at risk for both acute and chronic health complications, as untreated infections can lead to pelvic infectious disease (PID) in females, infertility in both sexes and potentially serious and life-threatening problems to infants if left untreated. Therefore, Gannon-Loew and Holland-Hall (2020) emphasizes that given the gravity of complications associated with these infections, screening, accurate diagnosis, timely and appropriate treatment are critical to avert such complications.

Respondents’ Attitudes Toward STDs and Management of STDs.

The findings revealed that although the high percentages of the respondents indicated that it is wrong

for the nurse to treat young and unmarried STDs patients in a judgmental way, a high proportion of respondents posed concealed negative attitudes towards STDs managements. In this regard, Atuyambe *et al.*, (2015) argues that negative attitudes of healthcare providers discourage clients from seeking health service, which in return contributes to potential complications. Similarly, Bell and Bray, (2014) warns that stigmatization and negative attitudes by health care providers towards patients presenting with STDs is judgmental and causes patients to shy away and reserve to talk about their problems regarding STDs.

Furthermore, a notable 31% of the respondents wrongly asserted that Ceftriaxone injection may not be replaced with Cefixime tablets in case Ceftriaxone is out of stock. Non-replacement of non-stock antibiotics creates chances for bacteria to flourish and the development of bacterial resistance to antibiotics. Furthermore, a notable 22% of the respondents wrongly indicated that it is not necessary to milk the male urethra to confirm the discharges of patients presenting with discharges syndrome, and 16% of the respondents asserted that following a flow chart or treatment guides is time consuming. These responses portray negative attitudes towards sexual transmitted diseases among the respondents.

Nurses should follow the syndromic guidelines and flow charts to make correct diagnosis and initiate treatments for STDs accordingly. Failure to follow syndromic guidelines and flow chart leads to resistance and reoccurrence of infections (Ucheua & Govender, 2018). However, the findings from the current study, concluded that nurses do not follow the STIs syndromic and treatment protocols that are in place.

Privacy and confidentiality are important elements for successful management of STDs. However, the findings from the current study have proven otherwise. Although the majority 77% of the respondents agreed that nurses need to be sympathetic during history taking for STDs, a notable 16% disagreed and 7% were uncertain about practice of empathy towards patient with STDs. This evidence demonstrated concealed negative attitudes of the student nurse respondents towards STDs management. The revelation supports claim by Kouyate (2018) that nurses display hostile attitudes and are disrespectful towards patients with STDs, while stigmatize young and non-married people who seeks treatment for STDs. To prevent, nurses' negative attitudes towards patients with STDs, Bell and Bray (2014) assert that training of undergraduate nursing students should impart the knowledge and positive attitudes towards sexual health and STDs, which as a result, would enable nursing graduates to enter the professional practice with sufficient knowledge and correct attitudes towards practice.

Respondents Attitude Towards Management of STDs

Regarding management of STDs, the findings of current study showed that the respondents displayed good management of STDs. This revelation is congruent with (Bungay and Stevenson, 2013) postulation that, nurses including student nurses should have sound scientific knowledge on management of STDs. The author further urges for educational institutions to provide student nurses with educational foundation about management of STDs. Lack of knowledge results into lack of confidence towards the management of STDs. Therefore, (Bell and Bray, 2014) asserts that quality theoretical and practical training for the undergraduate nursing students improves the knowledge and attitudes towards sexual health and STDs and as a result, enables undergraduate nursing students to enter the professional practice with sufficient knowledge regarding management of sexual transmitted diseases.

CONCLUSIONS

The findings of this study revealed poor knowledge of STDs and negative attitudes towards management of patients with STDs among the study respondents.

Implications

The findings of this study are useful to the relevant stakeholders to gain understanding of nurses knowledge of and attitudes regarding STDs. Given prevalences of STDs among clients of health services, nurse should have good level of knowledge of and portray positive attitude regarding STDs. Given.

ACKNOWLEDGEMENT

The School of Nursing at the University of Namibia is acknowledged for granting the prime researcher a permission to carry out the study and to access respondents. Equally, student respondents are acknowledged for participating and provide valuable information to realize the goal of the study.

LIMITATION

The study was conducted among one category of student nurses, the 3rd year diploma nursing students at the main campus of the University of Namibia. As a result, the findings may not be generalized to other category of student nurses at the same campus, nor to nursing students at other campuses of the same institution or at other local universities. Furthermore, the findings are from a small sample of the target study population and therefore may not be generalized.

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