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# Nurses' Knowledge on Mode of Transmission and Prevention of Sexual Transmitted Diseases (STDs) in Rajshahi Medical College Hospital

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### **Original Research Article**

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#### **Abstract:**

Background: Sexually transmitted diseases (STDs) remain a significant public health concern worldwide. Adequate knowledge among healthcare professionals, particularly nurses, is vital for effective prevention and control. This study assesses the knowledge of nurses regarding the mode of transmission and prevention of STDs at Rajshahi Medical College Hospital, a tertiary-level teaching hospital in Bangladesh. Objective: Aims to assess their awareness of STD types, transmission modes, risk factors, and preventive measures. Methods: The cross-sectional study was conducted at Rajshahi Medical College Hospital over a six-month period from January to June 2015. The research involved a diverse group of nurses with varying ages, qualifications, and years of service. Data were collected through structured interviews and questionnaires. Descriptive statistics were used to analyze the responses. Results: The findings indicate a high level of awareness among nurses regarding STDs. All respondents were aware of the concept of occupational hazards, the various types of STDs, their modes of transmission, and associated risk factors. Notably, 100% of respondents had knowledge of HIV/AIDS, while 92% were informed about Hepatitis B&C. However, awareness levels varied for other diseases, with 24% for Tuberculosis, 36% for Meningitis, and 12% for Malaria. The predominant mode of transmission recognized was sexual activities (100%), followed by cuts from surgical instruments (80%). Other modes of transmission, such as through bed making, wearing cloth, and masturbation, were considered negligible. Conclusion: This knowledge is crucial in their role as registered nurse with healthcare providers, although continuous education and updates are essential to ensure ongoing effectiveness in STD prevention and management.

Key Words: Nurses, STDs, Knowledge, Transmission, Prevention, Healthcare.

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### INTRODUCTION

Since the early eighties, sexually transmitted diseases (STDs) have posed a significant global public health concern, particularly in developing countries [1]. The implications of STDs extend beyond their immediate health impact, as they contribute to the transmission of Human Immunodeficiency Virus (HIV). Additionally, STDs can lead to severe consequences for the reproductive health and overall well-being of both men and women [2]. The untreated short and long-term sequelae of STDs have profound biomedical, social, and economic implications for individuals and communities, making the control of STDs a recognized global priority [3]. In similar study, the International Conference on Population and Development (ICPD) held in Cairo identified the prevention and reduction of STDs, including HIV/AIDS, as essential components of reproductive health. The conference emphasized the need to provide treatment for STDs and their complications, with special attention to women's health [4].

In the South-East Asia region, STDs continue to be a serious and ongoing health problem, with a limited overall response to prevention and control efforts. Several factors contribute to this limited response, including insufficient awareness of STDs and their consequences, resource constraints, and societal reluctance, stemming from both political and cultural factors, to address the issue directly [5]. While many developing countries have prioritized STD prevention as part of their HIV prevention efforts, there remains a lack of comprehensive knowledge about STD prevalence, sexual and healthcare-seeking behaviors, socio-cultural and economic determinants of vulnerability, and the circumstances that hinder or facilitate prevention and management efforts.

In Bangladesh, where STD prevalence and its social context remain relatively underexplored, a few prevalence studies have indicated a concerning situation. National health programs have given priority to the prevention and management of reproductive tract infections (RTIs) and STDs, primarily targeting women of reproductive age in urban areas. However, these programs often focus on disease symptoms and treatment, neglecting broader aspects of behavior, relationships, and the complexities of everyday life, where risks and vulnerabilities can be concealed. Furthermore, these initiatives often exclude males of reproductive age and adolescents and largely overlook rural populations. As rural individuals, including adolescents, migrate for livelihood opportunities, their sexual risks and vulnerabilities increase, necessitating comprehensive interventions [6].

### **Objectives**

#### **General Objective:**

 The purpose of this study is to describe the level of actual and perceived knowledge of nurses about sexually transmitted diseases

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### **Specific Objective:**

- To measure the current level of knowledge of the nurses on STDs, in terms of symptom, transmission, harmful effect, treatment and prevention
- To determine how much nurses perceive they know about the transmission of sexually transmitted diseases as well as their attitudes about sexually and sexually transmitted diseases

## MATERIALS AND METHODS

This descriptive cross-sectional study was conducted among senior staff nurses at Rajshahi Medical College Hospital, Rajshahi, Bangladesh. A sample of 50 nurses was selected to explore their knowledge regarding the mode of transmission and prevention of sexually transmitted diseases (STDs). The study was conducted from January 2015 to June 2015.

#### **Inclusion Criteria:**

- Senior staff nurses at Rajshahi Medical College Hospital.
- Nurses willing to participate voluntarily.
- Nurses who provided informed consent.
- Nurses available for data collection during the study period.

#### **Exclusion Criteria:**

- Nurses who were not senior staff nurses.
- Nurses who declined to participate or provide informed consent.
- Nurses who were unavailable for data collection during the study period.
- Any other individuals not meeting the defined inclusion criteria.

#### **Data Collection:**

Before data collection, the study proposal received approval from the Director and Nursing Superintendent of Rajshahi Medical College Hospital. The purpose of the study was explained to potential participants, and their cooperation was sought. Those who agreed to participate provided verbal and written informed consent. A total of fifty nurses were interviewed using the questionnaire.

#### Data analysis:

Manually by master sheet and descriptive statistics were calculated from, Microsoft Excel. Data analysis involved the utilization of IBM Statistical Package for the Social Sciences (SPSS) version 26.0. Descriptive statistics were computed to summarize and interpret the collected data, facilitating a comprehensive understanding of the nurses' knowledge regarding STDs' mode of transmission and prevention.

#### **Ethical consideration:**

At first proposal was send to the Director and Nursing Superintendent of Rajshahi Medical College Hospital. Informed consent was obtained from the institution authorities and subjects, and informed consent was diligently obtained from both the institution and individual participants. Stringent measures ensured privacy, confidentiality, and anonymity to safeguard the rights and identities of the subjects. Human rights protection was prioritized, and data security was maintained with restricted access. Private, disturbance-free environments were provided for interviews, and raw data was held confidential, shared only with the investigator, preserving data integrity and participants' confidentiality.

### RESULT

The study's findings, with a focus on demographic information. Age distribution showed 20% in the 21-30 group, 60% in the 31-40 group, 16% in the 41-50 group, and 4% in the 51-60 group. Gender distribution revealed 10% male and 90% female nurses at Rajshahi Medical College Hospital.

**Table 1: Age distribution of the respondents** 

Variable	Parameters	N=50	Percentage
Age	20-30 years	10	20%
	31-40 years	30	60%
	41-50 years	08	16%
	51-60 years	02	04%
Gender	Male	5	10%
	Female	45	90%

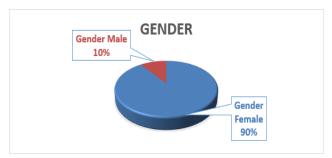


Figure 1: Graph showing the percentage of gender for nurses

Table 2: Distribution of Professional qualifications of the respondents

Variable	Degree	N=50	Percentage
Professional qualification	Diploma in Nursing	38	76%
	B.Sc in Nursing	11	22%
	MPH/M.Sc	1	2%

Table 2. shows that the majority of staff nurse respondents 100%, having diploma in nursing and midwifery only and 22% have B. Sc in Nursing and 2% have MPH/M.Sc Degree.

Table 3: Distribution of Length of service of the respondents

Variable	Parameters	N=50	Percentage
	0-10 years	25	50%
T amouth of counties	11-20 years	17	34%
Length of service	21-30 years	06	12%
	31-40 years	2	4%

That majority of staff nurse 50% respondents had age of their length service between the years 1-10 and 34% nurses are serving from 11-20 years, 12% were within the 21-30 years and 4% nurses are serving from 31-40 years.

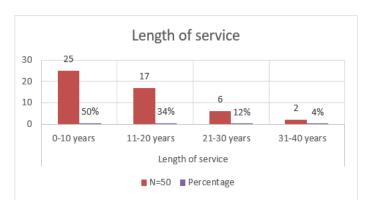


Figure 2: Service time of the respondents

Table 4: Multiple-choice questions assessing the nurse's knowledge of STDs

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Variables	Parameters	N=50	Percentage
Which STDs are caused by?	a. HIV/AIDS	50	100%
	b. Hepatitis-B&C	46	92%
	c. Tuberculosis, Yellow fever	12	24%
	d. Meningitis	18	36%
	e. Malaria	6	12%
What is the predominant mode of	a. Through genital	50	100%
transmission of STDs?	b. Cuts from surgical instruments	40	80%
	c. Through bed making	0	0
	d. Wearing cloths	0	0
	e. Masturbation	0	0
How are STDs caused?	a. Virus	40	80%
	b. Bacteria	30	60%
	c. Fungus	22	44%
	d. Boiling	8	16%
	e. Parasites	13	26%
How can you prevent STDs?	a. Education	40	80%
	b. Counselling	19	38%
	c. Force	10	20%
	d. Travelling	8	16%
	e. Use condom	45	90%
How will you handle STDs	a. With proper care	50	100%
patients?	b. Holistic nursing care	37	74%
	c. Ignore the patient	13	26%
	d. Hate the patient	8	16%
	e. No well behave	0	0

# **DISCUSSION**

Reproductive Tract Infections (RTIs) and Sexually Transmitted Diseases (STDs) have long been overlooked aspects of women's health, a situation often referred to as the "Cinderella of tropical medicine". These health issues disproportionately affect women and newborns, resulting not only in physical discomfort but also serious societal problems [7]. RTIs and STDs, when left untreated, can lead to Pelvic Inflammatory Disease (PID), causing infertility, ectopic pregnancies, cervical cancer, fetal wastage, low birth weight, infant blindness, neonatal pneumonia, and mental retardation. Moreover, they increase the risk of maternal and neonatal mortality [8]. In developing countries, the consequences of STDs can be severe. For instance, untreated gonorrhea in males can lead to urethral stricture, a progressive condition causing genitourinary problems [9]. About 10 to 30% of untreated men with gonorrhea develop epididymitis, and 20 to 40% of these cases result in infertility. Social consequences such as stigma and discrimination predominantly affect women, often preventing them from seeking treatment due to cultural taboos and lack of awareness [10].

In Bangladesh, women are more affected by RTIs and STDs than men, partly due to the power dynamics in sexual relationships and the limited availability of female-controlled barrier methods [11]. This puts women in a vulnerable position, making it challenging for them to negotiate safe sexual practices. Transmission of STDs, including HIV, is often more efficient from males to females, and women may become asymptomatically infected, further reducing their likelihood of seeking care. Seeking care from male health practitioners can also be stigmatized [12].

Despite the limitations of using questionnaires, qualitative methods have provided valuable insights into risky sexual behaviors and the occurrence of STDs. They have allowed the community's perceptions and beliefs to come to light, offering a deeper understanding of these issues. The debate regarding the effectiveness of syndromic management continues. While risk-assessment components have been proposed to enhance the approach, some studies have found syndromic management to be effective, particularly in resource-limited settings [13]. This study aims to identify probable risk factors in the study area. In study, addressing RTIs and STDs requires a comprehensive approach that includes sexual and reproductive health education within existing informal sex education networks. Safe sex practices are not solely reliant on knowledge but also on perceived social and sexual legitimacy in discussing and practicing safe sex [14].

### **CONCLUSION**

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In conservative rural societies with high STD prevalence and risky sexual behaviors, effective intervention strategies must navigate cultural norms sensitively. Addressing STDs and RTIs requires a holistic approach, considering factors such as human relationships, communication, gender dynamics, family interactions, and socio-economic status. This comprehensive perspective recognizes that risk and vulnerability are multidimensional. For instance, addressing the needs of never-married adolescents is particularly challenging due to societal taboos around discussing sex. By promoting comprehensive sex education and acknowledging cultural complexities, public health efforts can better combat these diseases.

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