

Knowledge Regarding HIV/AIDS Transmission and Prevention Among Middle Adolescent

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Abstract—Background: Human Immunodeficiency Virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) continue to be major global public health concerns affecting populations worldwide. Many people living with HIV do not have adequate knowledge regarding the disease, leading to increased risk of complications and transmission. At the global level, considerable progress has been made in HIV prevention and treatment. By the end of 2024, approximately 40.8 million people were living with HIV worldwide, with about 1.3 million new infections reported during the year. Increased access to antiretroviral therapy has significantly improved health outcomes, with more than three-fourths of people living with HIV receiving treatment and achieving viral suppression. Although HIV-related deaths have declined substantially over the years, the disease continues to pose a major public health challenge. **Objectives:** The studies were multifaceted, encompassing the evaluation of assess the level of knowledge regarding HIV/AIDS transmission and prevention among middle adolescent in selected higher secondary school, find the association between the level of knowledge regarding HIV/AIDS transmission and prevention with their selected demographic variables and develop and distribute an information booklet regarding HIV/AIDS transmission and prevention.

Methodology: A descriptive study was carried out among 60 students to evaluate the knowledge regarding HIV/AIDS transmission and prevention among middle adolescents in Govt. HSS Pattikkad, Thrissur. Convenient sampling technique was used to enroll the middle adolescent who met inclusion criteria. A structured knowledge-based questionnaire was used to assess the knowledge level of samples. Data were analysed using descriptive and inferential statistics with SPSS software. **Result:** The findings of the study were illuminating, revealing a significant knowledge gap among participants. A majority 45% have adequate knowledge level regarding HIV/AIDS transmission and

prevention, while 31.7% have moderate knowledge and a mere 23.3% have inadequate knowledge.

Conclusion: The findings highlight the need for focused health education and awareness programmes to improve knowledge and promote appropriate preventive practice regarding HIV/AIDS transmission and prevention among middle adolescents.

Index Terms—Human Immunodeficiency Virus, Acquired Immunodeficiency Virus, Knowledge, Prevention, Transmission.

I. INTRODUCTION

Health is a state of complete physical, mental, and social well-being and not merely the absence of disease. It reflects the overall functional and structural soundness of an individual as well as the community. Human Immunodeficiency Virus (HIV) is a retrovirus that weakens the immune system by destroying vital immune cells. . As a result, individuals infected with HIV become more vulnerable to opportunistic infections that are usually controlled by a healthy immune response. The term HIV infection is often used interchangeably with HIV disease. With advancements in medical treatment, especially the availability of antiretroviral therapy (ART), HIV is now considered a chronic manageable condition, enabling affected individuals to live longer and healthier lives.

In the context of Kerala, although literacy rates are high, evidence suggests that middle adolescent still have insufficient knowledge about reproductive health topics, including HIV/AIDS. This lack of comprehensive understanding may hinder the effectiveness of existing health education programmes

and limit middle adolescent' ability to protect themselves.

Assessing the level of knowledge regarding HIV/AIDS transmission and prevention among higher secondary school middle adolescent is important for identifying educational gaps, planning targeted interventions, and strengthening school-based health education initiatives.

By evaluating the knowledge of middle adolescents regarding HIV/AIDS transmission and prevention, this research aims to identify areas where education and awareness are lacking, thereby enabling the creation of more affective public health strategies.

II.METHODS

A descriptive study was adopted to assess the knowledge regarding HIV/AIDS transmission and prevention among middle adolescent in selected higher secondary school in thrissur district. The study was conducted in Govt HSS Pattikkad Thrissur. The objectives of the study include (1) To assess the level of knowledge regarding HIV/AIDS transmission and prevention among middle adolescent in selected higher secondary school. (2) To find the association between the level of knowledge regarding HIV/AIDS transmission and prevention among with their selected demographic variables. (3) To develop and distribute an information booklet regarding HIV/AIDS transmission and prevention.

The data collection tool consists of 2 section, first section included data regarding demographic data elicited are gender, religion, residence, educational status, type of family, mother's educational status, father's educational status, family income.

The second section includes structured knowledge questionnaire consists of 18 questions on HIV. The questions were framed under 2 categories like, knowledge regarding HIV prevention and transmission.

The questions were closed ended multiple choice questions with one right answer and 3 wrong answers. Each question was assigned with one score to the correct response and zero to the wrong answer. The maximum score was 18 and the minimum score was zero. The higher the score on the questionnaire greater the knowledge of students on HIV.

THE INTERPRETATION OF KNOWLEDGE LEVEL

Sl. No	Score Range	Level Of Knowledge	Percentage
1	0-6	0-33%	Inadequate knowledge
2	7-12	34-66%	Moderate knowledge
3	13-18	67-100%	Adequate knowledge

The study was approved by the ethical committee of college and permission taken from administrative department. The tool was developed by the researcher, after a review of recent relevant literature. The tool was submitted to the experts in the field of community health nursing for ensuring the adequacy of content and changes were made based up on the experts' suggestions. After obtaining content validity from experts, the study was conducted among middle adolescent by following the inclusion and exclusion criteria. Both descriptive and inferential statistics (Frequency, percentage, chi square) was used for analysis of data.

III. RESULTS

SECTION A:DATA ON DEMOGRAPHIC VARIABLES INCLUDES:

- On the basis of gender with regard to the age group ,21(35%) is male, 39(65%) are, female.
- On the basis of religion, 30(50%) are Hindu, 10(16.7%) are Christian, 20(33.3%) are Muslim.
- On the basis of residence, 21(35%) belong to rural, 13(21.7%) belong to semi-urban, 26(43.3%) belong to urban area.
- On the basis of educational status ,17(28.3%) belongs to 11 standard, 43(71.7%) belong to 12 standard,43(71.7%) belongs to 12 standards
- Regarding the types of family 50(83.3%) belongs to nuclear family, 10(16.7) belongs to joint family
- Regarding the mother's educational status 1(1.7%) belong to primary,17(28.3%) belongs to high school, 16(26.7%) belongs to higher secondary, 20(33.3%) belongs to graduate, 6(10%) belongs to post graduate
- Regarding the father's educational status 3(5%) belongs to primary, 16(26.7%) belongs to high school, 18(30%) belongs to higher secondary,

21(35%) belongs to graduate, 2(3.3%) belongs to post graduate.

- On the basis of family income 6(10%) belongs to Rs10,000 10(16.7%) belongs to Rs 10,000 -20,000 21(35%) belongs to Rs 20,000-30;000, 23(38.3%) belongs to Rs >30,000.

SECTION B Data on level of knowledge on HIV/AIDS transmission and prevention among middle adolescents includes:

TABLE 1: FREQUENCY AND PERCENTAGE DISTRIBUTION OF LEVEL OF KNOWLEDGE AMONG MIDDLE ADOLESCENTS

SL. NO	LEVEL OF KNOWLEDGE	SCORE RANGE	FREQUENCY	PERCENTAGE
1	Inadequate	0-09	14	23.3
2	Moderate	10-14	19	31.7
3	Adequate	15-18	27	45

The table (1) reveals the frequency and percentage distribution of the middle adolescent according to the level of knowledge. Out of 60 samples, with regard to level of knowledge 14(23.3%) has inadequate knowledge ,19(31.7%) has moderate knowledge,27(45%) has adequate knowledge.

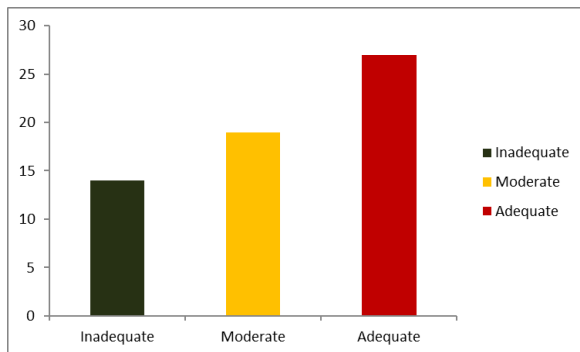


Figure1: Percentage of Middle Adolescents to Their Level of Knowledge Regarding HIV/AIDS Transmission and Prevention.

SECTION C: Data on association of knowledge on HIV/AIDS transmission and prevention with their selected demographic variables.

Chi square calculated value of gender, religion, residence, educational status, type of family, mother's educational status, father's educational status and family income.

IV. DISCUSSION

The discussion is based on the objectives of the study, the first objectives is to assess the level of knowledge regarding HIV/AIDS transmission and prevention among selected higher secondary school in Thrissur.

The current study revealed that among 60 students, that 23.3% have inadequate knowledge, 31.7% have moderate knowledge, 45% have adequate knowledge regarding transmission and prevention of HIV/AIDS.

The present study findings were supported by a descriptive study conducted in 437 high school students in Erbil. The study used multistage cluster sampling, found that awareness of HIV/AIDS was universal among students, with about 45% having good knowledge, 43.7% having moderate knowledge and only 11.2% having poor knowledge, showing that the majority possessed at least a satisfactory level of understanding.

The second objectives are to find the association between the level of knowledge regarding HIV/AIDS transmission and prevention among with their selected demographic variables.

The present study findings revealed that there was significant association between knowledge of middle adolescent with selected demographic variables such as gender and residence, and there was non-significant association between knowledge of middle adolescent with religion, educational status, type of family, mother's educational status, father's educational status and family income.

As per the third objectives to given information booklet regarding HIV/AIDS transmission and prevention among middle adolescent with their selected demographic variables.

The booklet distribution, a planned teaching, will enhance the knowledge regarding HIV/AIDS transmission and prevention. In the information booklet include causes, sign and symptoms, investigation, precautions/ prevention, treatment and government programmes about HIV/AIDS.

V. CONCLUSION

HIV/AIDS remains a major global health challenge, but it is both preventable and manageable with the right knowledge and resources. Effective prevention strategies such as practicing safe sex (using condom), regular testing, avoiding needle sharing, and ensuring

safe blood supplies-play a crucial role in reducing transmission. Medical interventions like antiretroviral therapy (ART) not only improve the quality of life for those living with HIV but also significant lower the risk of spreading the virus.

The results showed that 14(23.3%) have inadequate knowledge,19(31.7%) have moderate knowledge,27(45%) have adequate knowledge. The findings of the study have several implications in the field of nursing practice, education, administration and research.

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