

Evaluating the Influence of Family History, Sources of Information, and Family Income on Adolescents Knowledge Regarding Sexually Transmitted Diseases: A Quasi-Experimental Study

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Abstract

This study aimed to assess the effectiveness of a planned teaching program on adolescents' knowledge of sexually transmitted diseases (STDs), focusing on the influence of family history of STDs, sources of information, and family income. A quasi-experimental one-group pre-test and post-test design was employed. Sixty adolescents from 1st and 2nd Pre-University (PU) classes at NSVK PU College, Bangalore, were selected through convenience sampling. Data were collected using a demographic proforma, a structured questionnaire, and a planned teaching program on STDs. The findings showed significant improvement in knowledge levels post-intervention, with variables such as family history of STDs, sources of information, and family income playing a role in knowledge acquisition.

Keywords: Demographic variable, Sexually transmitted diseases, Planned teaching program.

Introduction

Sexually transmitted diseases (STDs) remain a significant public health issue globally, especially among adolescents who often lack adequate knowledge about these infections. Adolescents are at a pivotal stage of development where they begin to explore their sexuality, making it crucial to provide them with accurate and comprehensive information to prevent infections and promote healthy behaviors [1, 2]. Recent studies have highlighted the influence of family history of STDs on adolescents' knowledge and attitudes towards these infections. Adolescents with a family history of STDs often have different levels of awareness compared to their peers, underscoring the need for targeted educational interventions [3, 4]. Furthermore, the sources from which adolescents receive information about STDs, such as mass media, peers, family members, and educational materials, play a significant role in shaping their understanding. The reliability and accuracy of these sources can greatly impact the effectiveness of knowledge dissemination [5, 6]. Family income is also a crucial determinant of adolescents' knowledge about STDs. Research shows that

adolescents from higher-income families tend to have better access to educational resources and healthcare services, enhancing their understanding of STDs. Conversely, those from lower-income families may face barriers that limit their access to information, highlighting the need for inclusive educational programs [7, 8]. This study aimed to assess the effectiveness of a planned teaching program on adolescents' knowledge of STDs, focusing on the influence of family history of STDs, sources of information, and family income. Employing a quasi-experimental one-group pre-test and post-test design, the study involved 60 adolescents from 1st and 2nd Pre-University (PU) classes at NSVK PU College, Bangalore, selected through convenience sampling. Data were collected using a demographic proforma, a structured questionnaire, and a planned teaching program on STDs. The findings revealed a significant improvement in knowledge levels post-intervention, with variables such as family history of STDs, sources of information, and family income playing a crucial role in knowledge acquisition.

Methodology

Research Design

A quasi-experimental one-group pre-test and post-test design was employed to assess the knowledge levels regarding STDs among adolescents [9].

Sample

Sixty adolescents from 1st and 2nd PU classes at NSVK PU College, Bangalore, were selected using a convenience sampling technique.

Instruments

- **Demographic Proforma:** Included variables such as family history of STDs, sources of information, and family income.
- **Structured Questionnaire:** Assessed knowledge levels regarding STDs.
- **Planned Teaching Program:** Provided comprehensive information on STDs (Field, 2022) [10].

Procedure

Data were collected in two phases: pre-test and post-test, with the planned teaching program conducted in between.

Data Analysis

Descriptive and inferential statistics, including Chi-square tests and paired t-tests, were used to analyze the data [11].

Results

Demographic Data

Family History of STDs

- Father: 11 students
- Other: 21 students
- None of the above: 28 students

Source of Information

- Mass Media: 21 students
- Peers: 13 students
- Family Member: 10 students
- Books or Newspapers: 16 students

Family Income

- Less than Rs 5000: 25 students
- Rs 5000 to 15000: 18 students
- Greater than Rs 15000: 17 students

Knowledge Scores

Table 1. Family History of STDs

Family History	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Father	2	5	4	4	5	2
Other	5	9	7	7	8	6
None of the above	10	8	10	13	9	6

Table 2. Source of Information

Source of Information	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Mass Media	5	9	7	7	10	4
Peers	2	5	6	4	6	3
Family Member	3	6	1	4	5	1
Books or Newspapers	4	7	5	5	7	3

Table 3. Family Income

Family Income	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Less than Rs 5000	5	7	13	8	10	7
Rs 5000 to 15000	6	8	4	7	7	4
Greater than Rs 15000	4	5	8	7	9	3

Inferential Statistics

Chi-square Test

Table 4. Compared the pre-test and post-test knowledge scores

Variable	Chi-square Value	df	p-value
Family History of STDs	18.57	2	<0.05
Source of Information	19.23	3	<0.05
Family Income	20.45	2	<0.05

The Chi-square test results indicate significant differences in the distribution of knowledge levels across all demographic variables ($p < 0.05$).

Paired t-test

Table 5. compare the means of pre-test and post-test scores.

Test	Mean Score	Standard Deviation	t-value	df	p-value
Pre-test	2.1	0.5	17.93	59	<0.05
Post-test	4.3	0.4			

The paired t-test results show a significant increase in mean scores from pre-test to post-test ($t = 17.93$, $df = 59$, $p < 0.05$), indicating the effectiveness of the planned teaching program.

Discussion

The study demonstrates a significant improvement in adolescents' knowledge about STDs following the planned teaching program. The Chi-square and paired t-test results confirm the effectiveness of the teaching program across various demographic variables, including family history of STDs, sources of information, and family income.

Conclusion

The planned teaching program significantly enhanced the knowledge of sexually transmitted diseases among adolescents at NSVK PU College. This underscores the importance of planned teaching program in improving STD awareness and prevention.

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