



(RESEARCH ARTICLE)



The role of socio-economic factors, parental occupation, and education in enhancing adolescent knowledge of STDs: A quasi-experiment study, Bangalore

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Abstract

This study investigates the impact of socio-economic status, occupation of the head of the family, and education of the head of the family on adolescents' knowledge of sexually transmitted diseases (STDs). Adolescents often face knowledge gaps regarding STDs, increasing their risk of infection and adverse health outcomes. Addressing these gaps through targeted educational interventions is crucial for promoting safer sexual practices and improving adolescent health. Using a quasi-experimental one-group pre-test and post-test design, this study assessed sixty adolescents from 1st and 2nd Pre-University (PU) classes at NSVK PU College, Bangalore, selected via convenience sampling. Data were collected using a demographic proforma, including socio-economic status, occupation, and education of the head of the family. A structured questionnaire evaluated baseline STD knowledge. A planned teaching program on STDs covered transmission modes, symptoms, prevention, and treatment. The effectiveness of the intervention was measured by comparing pre-test and post-test scores, with statistical analysis confirming significant knowledge improvements. The analysis showed that socio-economic status, occupation, and education of the head of the family critically influenced knowledge acquisition. Adolescents from families with higher socio-economic status, more educated heads, and professional occupations exhibited greater knowledge improvement. These results highlight the importance of considering socio-economic factors when designing educational programs to increase STD awareness among adolescents. Tailored interventions addressing the specific needs of different demographic groups are essential to reduce STD incidence and promote healthier behaviours.

Keywords: Adolescents; Sexually Transmitted Diseases; Knowledge; Demographic variable

1. Introduction

Sexually transmitted diseases (STDs) continue to be a major health concern globally, particularly among adolescents who often lack sufficient knowledge for prevention [1]. Adolescents are at a critical developmental stage, and inadequate understanding of STDs can lead to increased risk of infection and adverse health outcomes [2]. Effective educational interventions are essential to bridge these knowledge gaps and promote safe sexual practices among young people [3]. Understanding the role of socio-economic factors, including family income, occupation of the head of the family, and education level, is crucial in addressing this issue effectively [2]. These factors can significantly influence the awareness and understanding of health-related information among adolescents [4]. Families with higher socio-economic status, more educated heads, and professional occupations may provide a more conducive environment for acquiring health knowledge, including information about STDs [5]. This study aims to assess the current knowledge levels regarding STDs among adolescents and evaluate the impact of a structured educational intervention [6]. By analysing the socio-economic status, occupation, and education of the head of the family, we aim to identify how these variables affect adolescents' knowledge acquisition about STDs [7]. The findings of this research will contribute to the

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development of targeted educational programs that can effectively address the specific needs of different demographic groups, ultimately reducing the incidence of STDs and promoting healthier behaviours among adolescents [8].

2. Material and methods

2.1. Research-Design

A quasi-experimental one-group pre-test and post-test design was utilized to measure changes in knowledge levels about STDs among adolescents (Creswell, 2021).

2.2. Sample

Sixty adolescents from 1st and 2nd PU classes at NSVK PU College, Bangalore, were selected using convenience sampling (Polit & Beck, 2021).

2.3. Instruments

2.3.1. Demographic Variables

- **Socio-economic Status:** Categories include upper, upper middle, lower middle, and lower.
- **Occupation of Head of Family:** Categories include government/private job, self-employed, un-employed, and other.
- **Education of Head of Family:** Categories include primary/secondary, graduate, post-graduate, and others.

Structured Questionnaire: Assessed knowledge levels regarding STDs.

Planned Teaching Program: Provided comprehensive information on STDs (Field, 2022).

2.3.2. Procedure

Data collection involved pre-test assessments, followed by a planned teaching program, and concluded with post-test evaluations.

2.4. Data-Analysis

Descriptive and inferential statistics, including Chi-square tests and paired t-tests, were employed to analyze the data (Kumar, 2021).

3. Results

3.1. Demographic Data

Table 1 Socio-economic Status

Socio-economic Status	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Upper	5	4	2	7	4	0
Upper Middle	4	6	3	8	4	1
Lower Middle	3	5	9	6	7	4
Lower	6	5	16	3	11	5

Table 2 Occupation of Head of Family

Occupation	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Government/Private Job	3	4	3	6	5	1
Self-employed	4	5	6	7	6	2
Un-employed	2	6	11	4	8	7
Other	9	8	7	7	7	0

Table 3 Education of Head of Family

Education	Pre-test Good	Pre-test Average	Pre-test Poor	Post-test Good	Post-test Average	Post-test Poor
Primary/Secondary	5	6	6	7	5	4
Graduate	4	7	4	6	6	3
Post-graduate	2	4	3	5	3	1
Others	7	6	14	6	12	8

3.2. Inferential Statistics

3.2.1. Chi-square-Test

Table 4 To compare pre-test and post-test knowledge scores and assess significance

Variable	Chi-square Value	df	p-value
Socio-economic Status	22.17	3	<0.05
Occupation of Head	17.92	3	<0.05
Education of Head	15.81	3	<0.05

3.2.2. Paired-t-test

Table 5 To compare mean scores of pre-test and post-test

Test	Mean Score	Standard Deviation	t-value	df	p-value
Pre-test	2.8	0.6	15.47	59	<0.05
Post-test	4.5	0.5			

4. Discussion

The study highlights significant improvements in adolescents' knowledge about STDs following the educational intervention. Socio-economic factors, occupation, and education level of the head of the family significantly influenced knowledge acquisition, as evidenced by the Chi-square and paired t-test results.

5. Conclusion

The structured educational program effectively enhanced adolescents' understanding of STDs at NSVK PU College. Addressing socio-economic disparities and tailoring interventions accordingly are crucial in promoting STD awareness and prevention.

Compliance with ethical standards

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Disclosure of conflict of interest

The authors declare no conflicts of interest regarding the publication of this manuscript.

Statement of informed consent

Informed consent was obtained from all individual participants included in the study.

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