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Original Research Article

Assessment of knowledge, attitude and perceptions of HIV/AIDS among secondary school students in Guntur district of south India: a cross-sectional survey

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ABSTRACT

Background: In recent years, there established a diverse information and accelerated surge towards HIV/AIDS. However, awareness of HIV/AIDS among children are ill-defined. As we all are familiar with the known fact that, our greatest natural resource is the minds of the young children who has the potentiality for forming a better nation. It is our greatest responsibility to ignite their young minds in order to eradicate the pandemic diseases such as HIV/AIDS. The objective of the study was to assess the knowledge, attitude and perceptions regarding HIV-AIDS among secondary school students.
Methods: A cross-sectional survey was conducted using the simple random sampling technique. A total of 96 students aged between 13-17 years were sampled from a secondary school in Guntur district and interviewed through a validated self-administered questionnaire in order to assess the knowledge, attitude and perceptions (KAP) regarding HIV/AIDS. The study cohort includes students from VIII, IX, and X standards. Verbal consent from students was obtained before initiating the study. Responses were scored, analyzed and mean score and percentage were used to determine the level of KAP.
Results: The study results demonstrated that students of class X had a predominant overall knowledge than of class IX and VIII. While males had a good knowledge about HIV/AIDS. Whereas, females had a lot of misconceptions when compared on overall basis.
Conclusions: This particular survey results strengthen the truth that still there exists a lack of awareness and knowledge among children regarding HIV/AIDS in developing countries like India.

Keywords: HIV/AIDS, Secondary school students, Awareness, Knowledge, Attitude, Perceptions, KAP, South India

INTRODUCTION

HIV is the abbreviated form for human immuno-deficiency virus, which is a retrovirus that can lead to acquired immuno-deficiency syndrome (AIDS). As the name implies it is a condition resulted by a deficiency in the body's immune system. It is a syndrome because it encompasses a pattern of different symptoms with varied manifestations in different cases. It is acquired because it is an infectious disease caused by a virus which can spread from person to person through a variety of routes.[1]

HIV/AIDS is best viewed as a major pandemic which poses serious challenges to mankind on a global scale. HIV is a behavior related disease in which awareness and knowledge with regard to HIV and AIDS could influence the course of its spread. AIDS emerged as one of the most important public health concerns in late twentieth and early twenty- first centuries. It is now considered as one of the leading causes of global morbidity and mortality. Adolescents and youth need information in order to make such responsible choices in terms of sexual behavior/relationship.[2]

METHODS

This study was a cross-sectional survey which was descriptive in nature, conducted at SIMS group of institutions for a period of six months (i.e. September 2013 to February 2014) with a sample size of 96 school children. The Institutional Human Ethical Committee of SIMS College of Pharmacy had approved the study.

Study procedure

Study was initiated after Institutional ethical committee has approved the study. Subjects who met the inclusion criteria were enrolled in to the study after obtaining the verbal informed consent. Information was collected by using a pre-designed semi-structured self-administered questionnaire. For the survey, the students were asked to gather at specified times other than class hours. Questionnaire contains various sections (knowledge, attitude and perceptions) and each section focused on different aspects of the disease (HIV/AIDS). The participants who were present on the day of data collection were included in the study. All the subjects were explained about the study and the questions were explained to them in detail to ensure complete comprehension. The study investigators answered the queries raised by the participants. All the respondents participated voluntarily and had been informed about the nature and objectives of the study.

Designing of survey questionnaire

The questionnaire was designed based on studies reported in Indian journals. After reviewing previous similar studies carried out in the similar topic, a questionnaire was drafted according to the aim of the study. The questionnaire consists of three major sections, among which the first sections contains questions aiming at the basic knowledge regarding causative agent, diagnostic test and modes of transmission of HIV/AIDS whereas, second and third sections contains questions aiming at the attitude and perceptions of HIV/AIDS respectively. Thus, a questionnaire was composed of 19 questions with a tick-box response which is easily understood and quick to complete. After the initial draft, content was validated by the expert reviewers and consistency was statically tested by the Cronbach's alpha which evidently proved that questionnaire is feasible to obtain the accurate responses.

Scoring

Each correct answer was given the score of 1 and wrong or unmarked response was scored as 0.

Data analysis

Data were entered into Microsoft Excel Spreadsheet, and cross checked for accuracy. Thereafter, the data were loaded into SPSS version 11.0 or Graph Pad Instat® version 2.05a for further analysis. Descriptive statistics on sample characteristics were computed, including means, standard deviation, and frequency distributions.

RESULTS

Of the total 96 participants, 52 (54.18%) were males and 44 (45.82%) were female students. Among the study participants, 28 (29.16%) participants were of 15 years of age which is predominant as shown in Table 1. The mean age of participants is 15 years with SD of ±1.58.

As depicted in Table 2, out of 96 students, X-class pursuing students nominates the highest population among the study cohort with 40 students (41.66%).

Table 1: Age and gender distribution among study participants.

Age of the study participants (years)		13 (%)	14 (%)	15 (%)	16 (%)	17 (%)	Total (%)
Gender	Male	7 (7.29)	10 (10.41)	16 (16.66)	11 (11.45)	8 (8.33)	52 (54.18)
	Female	6 (6.25)	9 (9.37)	12 (12.50)	10 (10.41)	7 (7.29)	44 (45.82)
	Total	13 (13.54)	19 (19.78)	28 (29.16)	21 (21.89)	15 (15.62)	96 (100)

Table 2: Educational status and gender distribution among study participants.

Educational status of the study participants (class)		VIII (%)	IX (%)	X (%)	Total (%)
Gender	Male	14 (14.58)	17 (17.70)	21 (21.87)	52 (54.18)
	Female	12 (12.50)	13 (13.54)	19 (19.79)	44 (45.82)
	Total	26 (27.08)	30 (31.24)	40 (41.66)	96 (100)

Knowledge towards HIV/AIDS

The total mean score for correct responses of knowledge section comprises of 62.97% which indicates moderate level of knowledge among study participants towards HIV/AIDS. When it comes to the class wise responses, it was 52.4%, 61.7% and 74.8% for class VIII, IX and X respectively as represented in figure.1. Majority of the class X students (74.8%) exhibited good knowledge when compared to the class IX (61.7%) and VIII (52.4%) respectively.

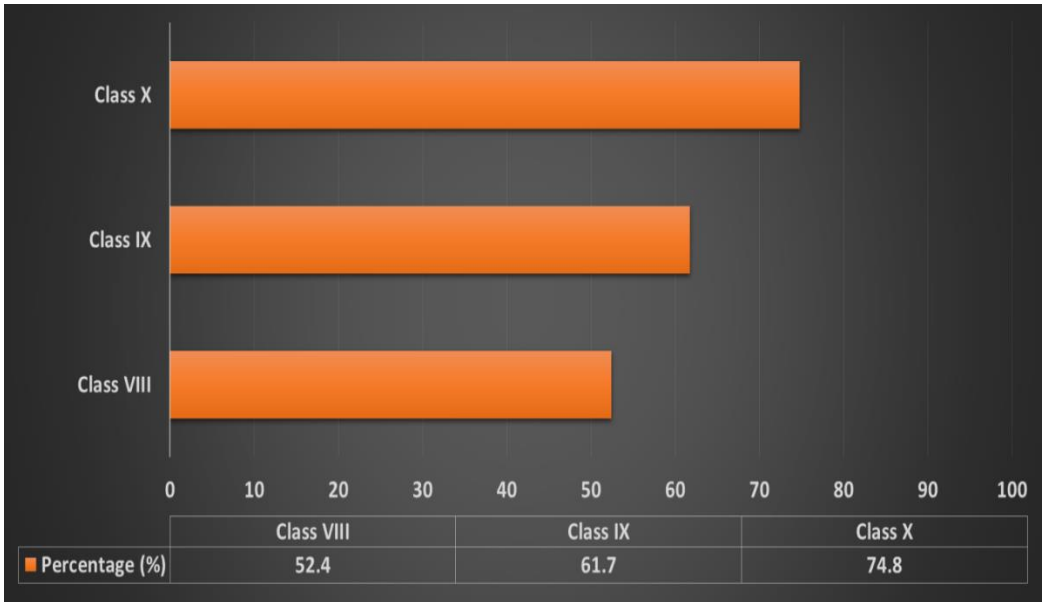


Figure 1: Correct response percentage of knowledge among student population towards HIV/AIDS based on the educational status.

Table 3: Knowledge of student population towards HIV/AIDS.

Questions	Agree (%)	Disagree (%)	Don't know (%)
HIV stands for human immunodeficiency virus	89 (92.7)	2 (2.08)	5 (5.20)
AIDS stands for acquired immune deficiency syndrome	81 (84.3)	4 (4.16)	11 (11.4)
Causative agent of HIV/AIDS is a virus	56 (58.3)	27 (28.1)	13 (13.5)
HIV/AIDS can be prevented	47 (48.9)	42 (43.7)	7 (7.29)
No vaccine for HIV/AIDS	62 (64.5)	29 (30.2)	5 (5.20)
Symbol of HIV/AIDS awareness is red-ribbon	73 (76.0)	9 (9.37)	14 (14.5)
HIV/AIDS can be confirmed through blood test	35 (36.4)	11 (11.4)	50 (52.0)
HIV/AIDS can be transmitted from infected mother to the child at birth	41 (42.7)	17 (17.7)	38 (39.5)

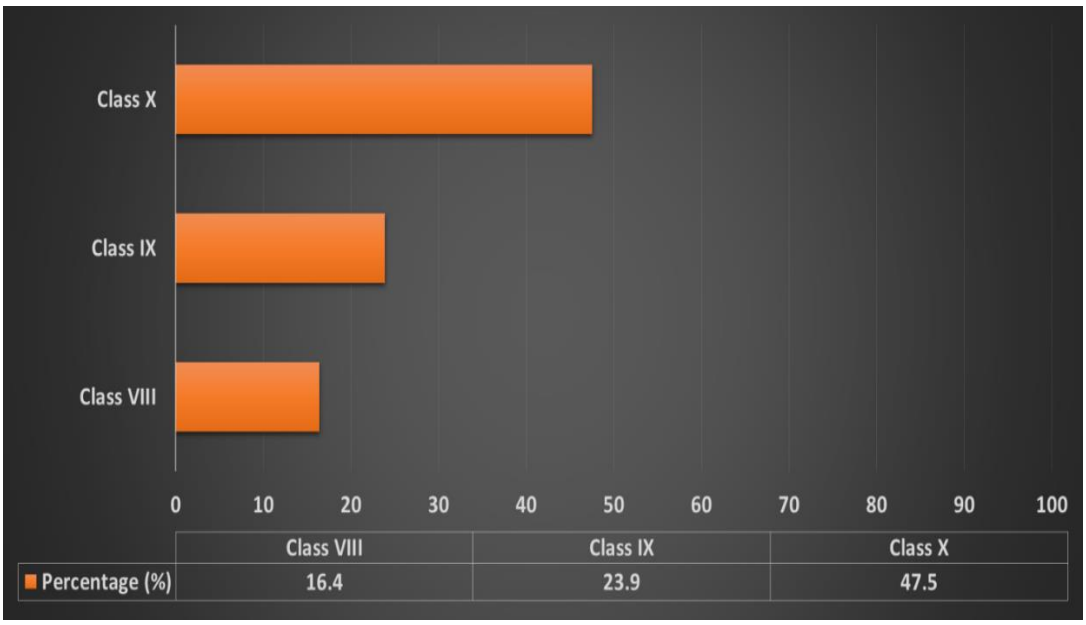


Figure 2: Correct response percentage of attitude among student population towards HIV/AIDS based on the educational status.

Table 4: Attitude of student population towards HIV/AIDS.

Questions	Agree (%)	Disagree (%)	Don't know (%)
PLWHA should be treated as same as other human beings by the society	11 (11.4)	23 (23.9)	62 (64.5)
PLWHA should not be separated from home	19 (19.7)	58 (60.4)	19 (19.7)
Would you like to do friendship with HIV infected child	36 (37.5)	12 (12.5)	48 (50)
Would you like to play with your friend who had HIV/AIDS	47 (48.9)	29 (30.2)	20 (20.8)

*PLWHA- people living with HIV/AIDS.

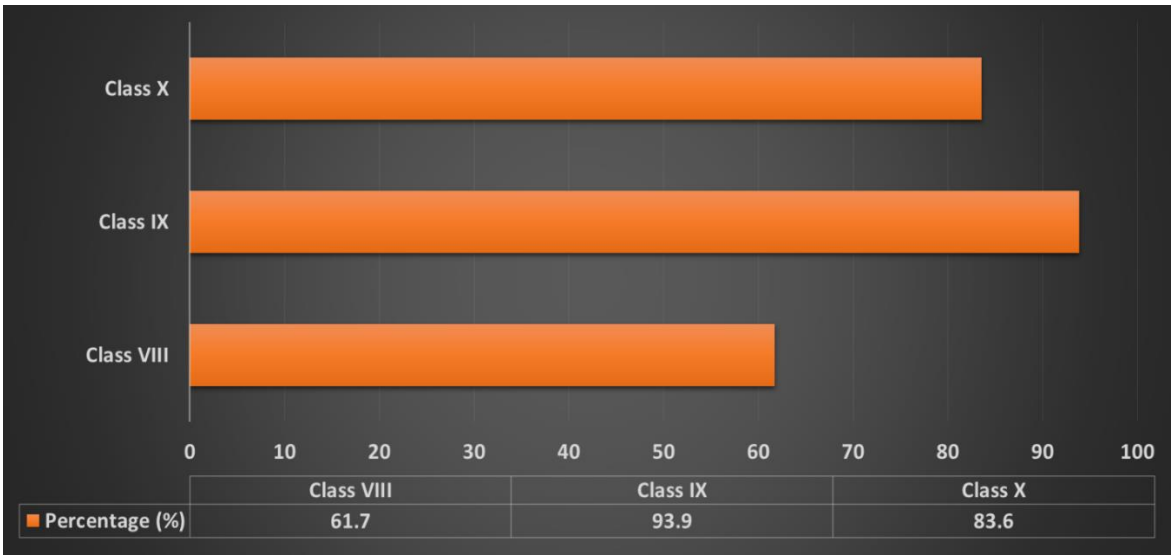


Figure 3: Correct response percentage of perceptions among student population towards HIV/AIDS based on the educational status.

Table 5: Perceptions of student population towards HIV/AIDS.

Questions	Agree (%)	Disagree (%)	Don't know (%)
Sharing a meal/food with HIV/AIDS infected person will not transmit the virus	56 (58.3)	11 (11.4)	29 (30.2)
Hugging and shaking hands with HIV/AIDS transmitted person will not transmit HIV virus	81 (84.3)	13 (13.5)	02 (2.08)
Mosquito bite from HIV/AIDS infected person will not transmit HIV virus	79 (82.2)	02 (2.08)	15 (15.6)
Sharing injection, needles and razors with a HIV infected person will transmit HIV virus	89 (92.7)	01 (1.04)	06 (6.25)
Using public toilets will not spread HIV virus	76 (79.1)	08 (8.33)	12 (12.5)
Sexual contact with HIV infected people will spread HIV virus	94 (97.9)	01 (1.04)	01 (1.04)
You cannot tell by looking at a person whether they are HIV+	63 (65.6)	05 (5.20)	28 (29.1)

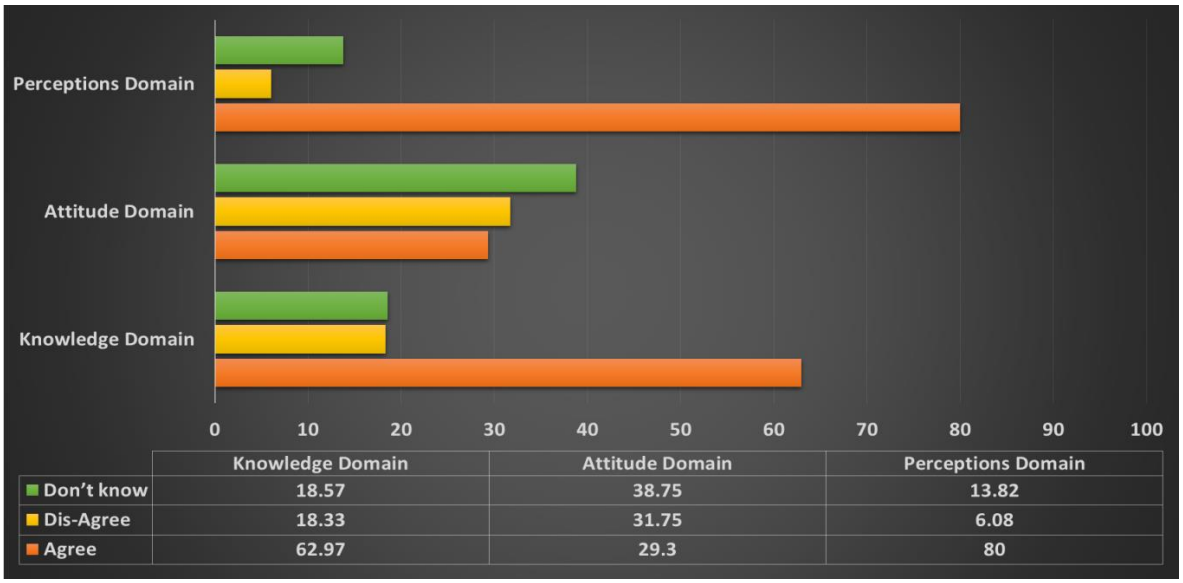
Attitude towards HIV/AIDS

The total mean score for correct responses of attitude section comprises of 29.3% which indicates very poor level of attitude among study participants towards HIV/AIDS. When it comes to the class wise responses, it was 16.4%, 23.9% and 47.5% for class VIII, IX and X respectively as represented in figure.2. Majority of the class X students (47.5%) exhibited good attitude when compared to the class IX (23.9%) and VIII (16.4%) respectively.

Perceptions towards HIV/AIDS

The total mean score for correct responses of perceptions section comprises of 80% which indicates good level of perceptions among study participants towards HIV/AIDS. When it comes to the class wise responses, it was 61.7%,

93.9% and 83.6% for class VIII, IX and X respectively as represented in Figure 3. Interestingly, majority of the class IX students (93.9%) exhibited good perceptions when compared to the class X (83.6%) and VIII (61.7%) respectively.



	Knowledge Domain	Attitude Domain	Perceptions Domain
Don't know	18.57	38.75	13.82
Dis-Agree	18.33	31.75	6.08
Agree	62.97	29.3	80

Figure 4: Overall mean response percentages of all domains among student population towards HIV/AIDS.

DISCUSSION

This study was considered as the first study to address the awareness related issues among secondary school children in Guntur district of Andhra Pradesh.

Knowledge domain

From this study results with respect to knowledge domain, it is evident that there is a lack of knowledge among school going children with regards to HIV/AIDS. On observing total mean score for correct responses of knowledge section comprises of 62.97% which indicates moderate level of knowledge. When considered specific questions in knowledge domain, about half of the study participants (43.7%) doesn't know whether HIV/AIDS can be preventable. Surprisingly, greater than half of the students (52%) doesn't know that HIV/AIDS can be diagnosed through blood test and greater than one third of the students (39.5%) doesn't know that HIV/AIDS can be transmitted through infected mother to the child during birth. These findings are in contrast with the similar studies conducted by Bhalla et al, Lal et al and Koksal et al.[3-5]

Attitude domain

Looking at the results of attitude domain it reveals that there exists poor level of attitude among school students towards HIV/AIDS with a total mean score for correct responses of 29.3%. By considering individual question, interestingly around two-third of the study participants (64.5%) doesn't know whether PLWHA can be treated as same as other human beings by the society. Greater than half of the participants (60.4%) wants HIV infected patients to be separated from their homes. Half of the participants (50%) are in a dilemma whether to do friendship with HIV infected child. Around one-third of the participants (30.2%) dis-agree to play with a friend who had HIV/AIDS. These findings are in accordance with the similar studies conducted by Piyavorawong et al and Gilks et al.[6,7]

Perception domain

From the results with specific to perception domain, it shows a good level of perceptions among study participants towards HIV/AIDS with a total mean score for correct responses of 80%. With respect to the individual questions, about one-third of the participants (30.2%) doesn't know that sharing a meal/food with HIV/AIDS infected person will not transmit the virus. Greater than one-fourth of the participants (29.1%) doesn't know whether a HIV infected person can be identified by their morphological features. These findings are in contrast with the similar studies conducted by Prem Kumar et al.[8] In a similar study conducted by Bolla et al. reported that about two-third of the study participants had a basic knowledge regarding HIV/AIDS which is in accordance with our study findings (62.97%).[9]

CONCLUSION

The current study sought to explore the knowledge, attitude and perceptions secondary school students in south India. KAP studies are considered as an important

tool for HIV/AIDS prevention and control. Despite of unfavorable attitude and perceptions among participants, study finding evidently suggests that there exists a huge lack of knowledge towards HIV/AIDS. This particular study also highlighted some misconceptions about HIV/AIDS diagnosis and prevention, which need to be concerned about. Thus, through these findings we request to implement specific focus and strengthened health education on HIV/AIDS in the process of igniting the young brains with respect to their knowledge, attitudes and perceptions. I believe, awareness has an impact in order to establish the effective nation with a broad scope for understanding and preventing the pandemic diseases like HIV/AIDS.

Limitations

As the sample size and duration of this study is not numerous, the findings may not be generalized and extrapolated to other population groups who may differ substantially in relationships, distribution, awareness and cultural status. However, it aids to encourage the similar kind of studies in this specific area of research.

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