



## A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION PAMPHLET ON KNOWLEDGE REGARDING WARTS AMONG HIGH SCHOOL CHILDREN STUDYING IN SELECTED SCHOOLS OF PUNE CITY

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### ABSTRACT

**Introduction :-** Warts are the most viral infection that are encountered in the dermatological practice which are caused by Humanpapilloma virus. Warts are benign epidermal proliferations that have been recognized for thousands of years. The aim of the study was to assess the effectiveness of an information pamphlet on knowledge regarding warts among high school children. This was a quantitative type of study which was done among high school children. A quasi – experimental pre-test and post-test one group research design was adopted to assess the effectiveness of information pamphlet on knowledge regarding warts among the high school children. **Methods and Material :** Based on non – probability purposive sampling method 150 samples were selected. The study was carried out at English and Marathi – medium schools of Pune city and the samples were high school children. The tool consisted of a structured questionnaire for data collection based on the demographic variables and questions related to warts. Analysis was done by using the descriptive and inferential statistics. Frequency and percentage was found out to describe the pre-test and post-test knowledge score. Paired ‘t’ test and chi – square test were applied for data analysis. **Result:-** The major finding of the study shown that, there was an effect of information pamphlet on the high school children regarding information related to warts. The mean score in pre-test was 8.51 and in post-test was 15.1, which shows the effectiveness of information pamphlet on knowledge regarding warts among the high school children. **Conclusion:-** The pre-test and post-test mean scores were 8.51 and 15.1 respectively. This indicates that, there is a significant difference in knowledge level before and after administration of the information pamphlet on warts. Hence, the research finding had

shown that administration of the information pamphlet regarding warts was effective on the knowledge level of high school children.

**Keywords :** Effectiveness, Information pamphlet, Knowledge, Warts, High school children.

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## INTRODUCTION

Warts are common, non-cancerous, epidermal lesions caused by Humanpapilloma Virus (HPV) infection. It is a contagious disease transmitted by direct physical contact like skin to skin contact through hugs or handshakes. People of all age groups get affected by warts but these are more common among children and young adults. Warts are usually painless, but they may itch or even bleed occasionally. It can grow anywhere on the body and have a high rate of recurrence even after its treatment. They are more common among immunosuppressed patients. Without any change in the structure or size, warts can persist for so many years and can give rise to a cluster of warts in the surrounding region thereby spreading to other parts of the body.

Around the world, there have been several studies carried out regarding warts. Most of the studies cited that, children and adolescents suffering with warts belong to a low socio-economic status family, have active participation in sports related activities, lives alongwith joint families, keeps or look after the household animals. The treatment of warts poses a great challenge on the experience of a skilled physician and on the modern world dermatology as the treatment modalities for warts are not focusing on exterminating the causative organism HPV.

According to a study conducted by Kilkenny and Marks in 1996, concludes that verruca vulgaris (warts) has the prevalence rate of 2 – 20% among children and adults. More than 250 types of HPV are present. From that, type 1,2,4 and 7 can cause common warts and plantar warts. Type 3,10,27 and 41 can cause flat warts. Almost 90% of genital warts are caused by type 6 and 11 HPV.<sup>1</sup>

## NEED OF STUDY

Warts also called as verruca vulgaris, is a well defined cellular growth of varying shape and size on the skin surface caused by Humanpapilloma Virus. An abnormal proliferation of epidermal cells of the skin can result into the formation of warts. Recent studies conducted by Institute For Quality And Efficiency In Healthcare, Cologne, Germany, have shown that upto 33% of children and teenagers have warts; and are estimated to be much less common in other age groups.<sup>2</sup> In India per year, there are over 10 million cases have been reported on warts. Nearly 10 % to 20 % of school children were diagnosed with warts. According to a descriptive observational study regarding common warts conducted by Dr. Vaishnavi Gopal (Dermatologist), stated that the incidence of warts increases during the school years and reach its peak in adolescence and early adulthood. This study concluded that young male students were more susceptible in acquiring warts, as there is increased chance of contact with multiple individuals in schools and colleges.<sup>3</sup> In an observational clinical study on warts conducted by Sudhakar Rao concludes that, verruca vulgaris (warts) are one among the common dermatologic conditions. Due to increased and high risk of contact transmission the younger age groups are

more vulnerable to get easily affected by warts. In this study the ratio of males outnumbered the ratio of females with warts.<sup>4</sup> Sanjeev Gupta and Yugal K. Sharma have conducted a clinicoepidemiological study which shows that out of 100 patients with warts about 90 had non-genital warts and the remaining 10 had genital warts.<sup>5</sup> Therefore, in many of the recent researches, there is a great prevalence rate of warts among the general population. In a clinical study of warts conducted by Mohammed Ameen Sait depicts the clinical features of 126 patients suffering with warts. Almost 73.8 % of the patients were males and 30.2 % of the patients were belonged to the age group of 16 to 20 years. 58.9 % of the 126 patients were diagnosed with common warts. 12.7 % was the incidence of other types of warts among those 126 patients.<sup>6</sup> In a prospective cohort study, conducted by Sjoerd C. Bruggink, had an aim to assess the natural course of cutaneous warts among the primary school children. 1,099 school children had took participation in this study and from that 366 i.e., about 33 % of primary school children had cutaneous warts at baseline.<sup>7</sup> In a research study conducted by M. Vijaya Bharati, assessed the prevalence of palmo-plantar verruca vulgaris [warts] among the undergraduate nursing students. 328 undergraduate nursing students were scrutinized for skin conditions. Among those 328 nursing students, 31 % were dermatologically healthy ones and 10.4 % were having warts – specifically palmo-plantar warts.<sup>8</sup>

In the dermatological department of a selected hospital, 20 among 40 cases in a week is of warts and its associated treatment procedure. On investigation, majority of the clients were not aware about this condition of warts as well as its associated treatment. So, the investigator realized the need of awareness regarding warts among the growing citizens or members of the society. This study aims to assess the effectiveness of information pamphlet on knowledge regarding warts among the high school children. Thereby, inculcating the idea of warts among the school children.

**RESEARCH STATEMENT :** A STUDY TO ASSESS THE EFFECTIVENESS OF INFORMATION PAMPHLET ON KNOWLEDGE REGARDING WARTS AMONG HIGH SCHOOL CHILDREN STUDYING IN SELECTED SCHOOLS OF PUNE CITY

**AIM OF THE STUDY :** The aim of the study was to assess the effectiveness of an information pamphlet on knowledge regarding warts among high school children from selected schools of Pune city.

## **RESEARCH METHODOLOGY**

### **Research Objectives :-**

1. To assess the existing knowledge regarding warts.
2. To assess the knowledge after administration of information pamphlet on warts.
3. To compare the knowledge before and after administration of information pamphlet on warts.
4. To assess the effectiveness of information pamphlet on knowledge regarding warts.
5. To identify the association between selected demographic variables and knowledge before administration of information pamphlet on warts.

**Research approach :-** In order to achieve the desired objectives of this study, a quantitative research approach was adopted.

**Research Design :-** The researcher used a quasi – experimental pre-test and post-test one group research design.

**Research Setting :-** In this study, selected schools of Pune city is the research setting.

**Population :-** In this present study, accessible population is the high school children and target population is the children from selected schools of Pune city.

**Sample, Sample Size and Sampling Technique :-** The researcher had chosen 150 high school children from 8<sup>th</sup> to 10<sup>th</sup> standard as sample from selected schools of Pune city. The samples were selected using non – probability purposive sampling method.

**Development and Description of Research Tool :-** structured questionnaire which consist of multiple choice questions were utilized to gather the essential data for the research. There were 25 questions and each question carries 1 mark. The samples' scoring can be categorized into 20 – 25, 15 – 19, 06 – 14, 0 – 05 mark range as excellent, good, average, and poor respectively.

In the development of the research tool a thorough study of the literature was done by the researchers. A panel of proficient experts' opinions and recommendations were taken into consideration while the development of the research tool.

For the data collection purpose, the following tool was used by the researchers. The aim of the study was taken into consideration while the making of the research tool. It consists of two sections:

SECTION – I : Socio demographic variables which includes age, standard, gender, and residence of the high school children from selected schools of Pune city.

SECTION – II : A structured questionnaire, MCQs, based on the information pamphlet which contain the information regarding warts.

**Content Validity :-** The research tool was approved by 5 experts who were proficient in the field of community health nursing and their opinions and suggestions were also taken into consideration and finally the research tool was developed with the aid of a skilled guide.

**Reliability :-** Once the research tool's validity has been established, the final research tool was made. The reliability of the research tool was done among the one – tenth of the sample size. For the evaluation of the reliability test – retest method was used by the researcher. After collecting the data, by using Pearson's Correlation Coefficient formula the r value came to be 0.997 as the r value is more than 0.75 the tool is significantly reliable to measure the knowledge level of participants.

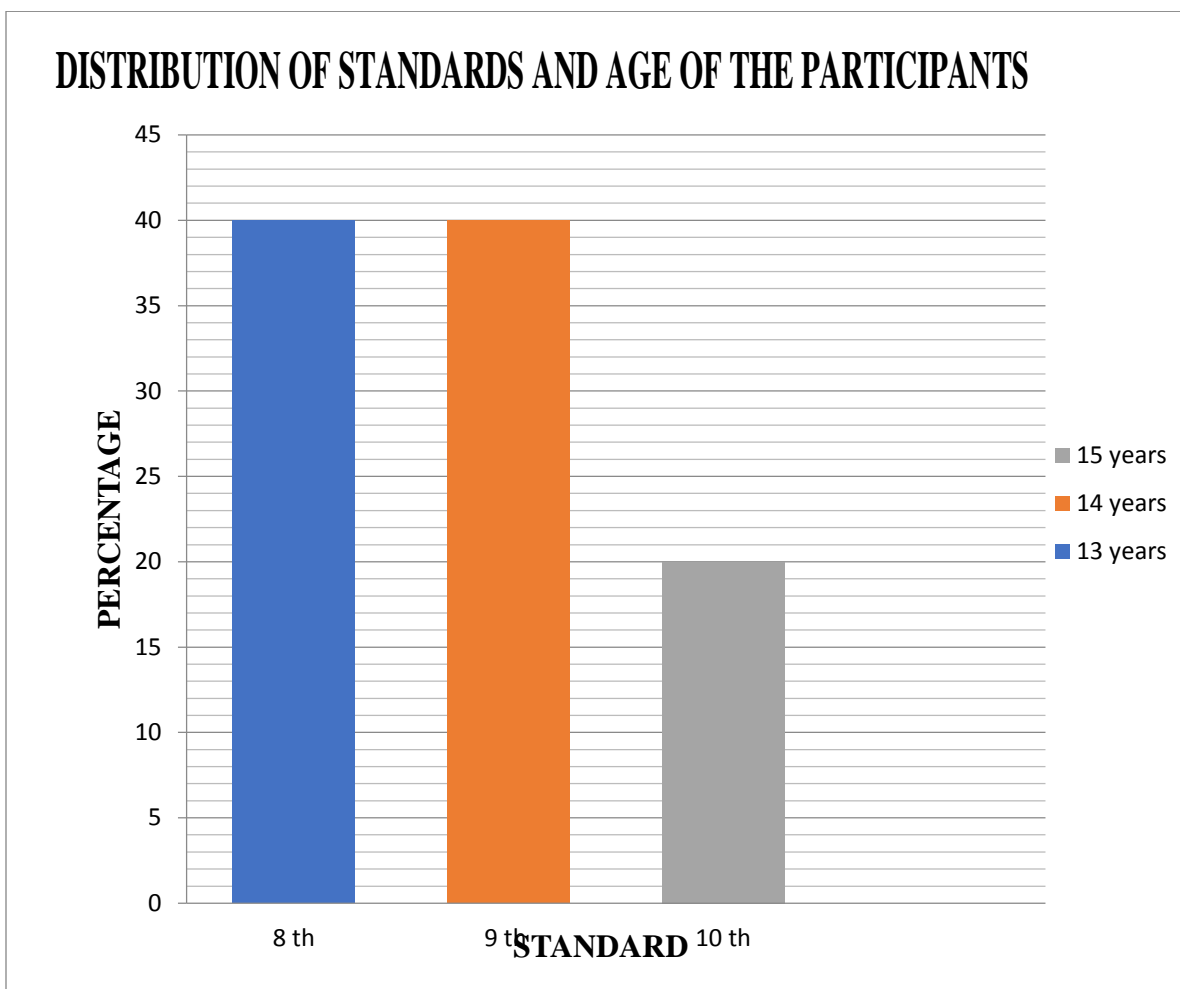
**Pilot Study :-** A scaled – down test of the main study was conducted among the one – tenth of the sample size. Based on the sampling criteria pilot study was conducted for 15 high school

children from a selected school. No any problem was faced while conducting the pilot study, so it was found to be feasible.

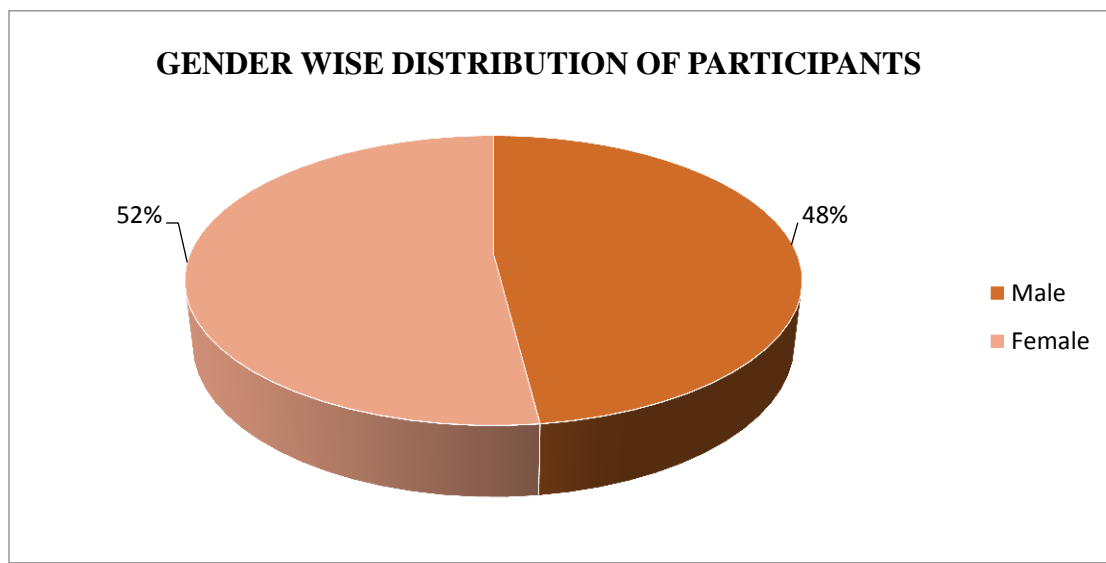
## RESULT

### SECTION - I

In this current study, analysis of socio-demographic variables revealed that among 150 samples, about 40 % of the participants belonged to the age group of 13 and 14 years respectively. About 20 % of the Participants were 15 years old. Gender wise distribution of the samples shows that, about 48 % of males and 52 % of females had took Participation in this study. Distribution of samples according to their standards in which they were Studying shows that, about 40 % of the samples belonged to 8<sup>th</sup> and 9<sup>th</sup> standard respectively. The rest 20 % of the samples were studying in 10<sup>th</sup> standard.



**Figure 1** : BAR DIAGRAM depicts the distribution of the participants according to standards in which they were studying towards their respective age.



**Figure 2** : PIE DIAGRAM shows the distribution of participants according to their gender. The percentage of female participants outnumbered the male participants by 52 % over 48 % respectively.

## SECTION - II

### Organization of Findings

**Objective 1** : To assess the existing knowledge regarding warts.

**Table 1** , Presentation of pre-test knowledge among high school children regarding warts.

KNOWLEDGE SCORES (PRE-TEST)	FREQUENCY (f)	PERCENTAGE (%)	MEAN	STANDARD DEVIATION (SD)
Excellent (20-25)	0	0 %	8.51	2.84
Good (15-19)	5	3.3 %		
Average (06-14)	127	84.86 %		
Poor (0-5)	18	12 %		

From the above table showing the pre-test knowledge scores of high school children regarding warts, it is clearly seen that not a single participant scored above 20 marks (excellent). Majority of the participants i.e. ,84.86 % had got scores between 6 – 14 marks range (average) and 3.3 % of the participants scored good marks of range 15 – 19. 12 % of the participants had poor knowledge regarding warts in the pre-test as they have obtained scores between 0 – 5.

**Objective 2 :** To assess the knowledge after administration of information pamphlet on warts.

**Table 2 , shows the post-test knowledge regarding warts among the high school children.**

**n = 150**

KNOWLEDGE SCORES (POST-TEST)	FREQUENCY (f)	PERCENTAGE (%)	MEAN	STANDARD DEVIATION (SD)
Excellent (20-25)	14	9.3 %	15.1	3.45
Good (15-19)	74	49.4 %		
Average (06-14)	62	41.3 %		
Poor (0-5)	0	0 %		

From the above table, it is seen that, about 9.3 % of the participants scored excellent marks (20 – 25) and majority of the participants attained good marks of range 15 – 19. Almost, 41.3 % of participants got average (6 – 14) scores and none of them got poor scoring.

**Objective 3 :** To assess the effectiveness of information pamphlet on knowledge regarding warts.

**Table 3 , comparison of pre-test and post-test knowledge scores**

**n = 150**

SR. NO.	Test	Mean	SD	df	Calculated value	T table value	P value	Remark
1.	Pre-test	8.51	2.84	149				

					17.224	2.11	0.0001	Significant
2.	Post-test	15.1	3.45	149				

The above table depicts that for the pre-test the mean is 8.51 and for the post-test is 15.1. This shows a positive difference in knowledge level among the high school children after the administration of information pamphlet regarding warts. The two-tailed p value is less than 0.0001 and by conventional criteria, the pre-test and post-test score difference is considered to be extremely significant at 0.05 level of significance. The paired t-test between the pre-test and post-test shows the calculated “t” value as 17.22 which is more than the t table value 2.11. This indicates that there is difference in knowledge level before and after administration of the information pamphlet regarding warts at 0.05 level of significance. Thereby, rejecting the null hypothesis it can be said that there is difference in knowledge level before and after administration of information pamphlet on warts among high school children at 0.05 level of significance.

## DISCUSSION

The present study was conducted to determine the effectiveness of information pamphlet on knowledge regarding warts among high school children from selected schools of Pune city. Sample of 150 has been taken. The researcher had applied paired t- test for the comparison of pre-test and post-test knowledge score before and after administration of information pamphlet regarding warts. The mean score of pre-test was 8.51 and of post-test mean score had increased to 15.1. T – value after the comparison was 17.224 and the corresponding p value came to be 0, which is less than 0.05 and the null hypothesis of the research has been rejected. There is a difference in the knowledge level of participants regarding warts before and after administration of the information pamphlet. This indicates that, information pamphlet has been found to be significantly effective in improving the knowledge level of the participants. In a cross – sectional study on epidemiology of warts carried out by F.M. Van Hallen reveals that one – third of the primary school children had warts ( 33 % ).<sup>9</sup> The present study was conducted among 150 high school children and in that the percentage of females outnumbered males by 52 % over 48 %. The current study had made a difference in the knowledge regarding warts among high school children through the effective intervention of an information pamphlet.

A school based cross – sectional study conducted by Nagwa Essa aimed at determining the prevalence of warts among primary schools of Egypt shows that, a common variant of warts showed a high prevalence rate of 49 % in primary school children.<sup>10</sup> The present study was



conducted among the high school children. In this study, the researcher had the intention of providing adequate knowledge regarding all aspects of warts like its different types of variants, epidemiological factors, management and its associated treatment modalities among school children, who showed high degree of prevalence rate of warts. The researcher in the present study, conducted a pre-test to assess the existing knowledge regarding warts among high school children of sample size 150. The pre-test score revealed that, the participants had only poor to average knowledge of 12 % and 84.86 % respectively regarding warts. Then, researcher administered an information pamphlet so that participants will get adequate knowledge regarding warts and they can prevent the transmission of this skin condition to some extent. To assess the knowledge level after administration of information pamphlet on warts, a post-test was conducted among same participants and the outcome came with the conclusion that administration of information pamphlet regarding warts was effective as there was a positive

## **CONCLUSION**

In the present study, based on the research findings the following conclusions can be drawn out. The age and standard of the participants were significantly associated with their knowledge regarding warts but their gender does not have any association with the knowledge level. The participants had only poor to average knowledge towards warts but after the administration of an information pamphlet there is a significant difference in the post-test knowledge score. The mean score have increased from 8.51 to 15.1 in the pre-test and post-test respectively.

On reviewing various previous literatures on warts, it concluded that the prevalence rates of warts were more common among the school children. Therefore, the present study provided the school children with knowledge and awareness regarding warts. Through the effective intervention of information pamphlet on warts the school children themselves gain knowledge and also spread the information related to warts Within their families too.

## **CONFLICT OF INTEREST**

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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