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Assessment of Personal Hygiene Knowledge and Practices: An Structured Study of Secondary School Children in Patna

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ABSTRACT

INTRODUCTION: Personal hygiene is a Public health tool is used for disease prevention and health promotion in individual, families and communities. Winslow in 1920 observed that personal hygiene can be improved by educating individuals in communities on basic tips of achieving personal cleanliness through their organised efforts and informed choices.The focus of good personal hygiene is to prevent diseases, Injuries and other health condition through surveillance and the promotion of healthy behaviour in aspects relevant to human health. It may prevent health problems from happening or re-occurring by implementing educational program, developing policies, administering services, and conducting research. Good personal hygiene has been found to be effective by reducing morbidity and mortality in children.

METHODOLOGY: An Experimental Research design (Pre- experimental one group pre-test & post-test design) was done among 60 secondary school students undergoing video assisted structured teaching program on personal hygiene at selected high school in Patna. Analysis was done through the two-way repeated- measures analysis technique and Chi- square test/ paired t-test. Data was collected using self-structured questionnaires.

RESULT : The pre-test knowledge regarding personal hygiene the mean score is the overall Mean±SD of pretest knowledge score was 16.02 ±3.74 and mean percentage of 57.21% where as The post-test mean score is the overall Mean±SD of post test knowledge score was 20.53 ±3.62 and mean percentage of 73.32% and the obtained "t" value 6.726 is greater than the table value at 0.05 level of significance. Therefore, "t" value is found to be significant. It means there is gain in knowledge level of secondary school students regarding personal hygiene. This final result support that video assisted teaching program on personal hygiene helped to increase the knowledge level of secondary school students..

CONCLUSION: Based on the study finding, it can be concluded that secondary school children are still not aware about the personal hygiene even they do not good practice about hygiene well. It arises a need of concurrent awareness program in school for better health hygiene and this indicates that the video assisted programme was effective in improving knowledge regarding personal hygiene in the pre -test compared to the control group.

KEYWORDS: video assisted programme, knowledge, personal hygiene secondary school children.

INTRODUCTION

Personal hygiene refers to maintaining the body's cleanliness. Improvement in personal knowledge, skill and practice that modify an individual's behaviours toward healthy practice are the focus of hygiene promotion. Practice that are generally considered proper hygiene includes showering or bathing regularly, wash hand regularly and especially before handling food, washing scalp hair, keeping hair short or removing hair, wearing clean clothing, brushing teeth, cutting fingernails, bedsides other practices[1].

This help you begin the process and slowly teaches them as they grow and take over the process.

Bathing

- Wash your hand body-use soap water your entire body regularly.
- Wash your face at least twice a day with a facial cleanser to remove oils that can cause acne.
- Keep your towel clean change your towel for clean ones at least once a week.
- Keep your shower tools clean.
- Exfoliate-use a washcloth, body scrub, or loofah to remove dead skin cells[2].

Hand hygiene

Germ on your hand can easily enter your body through your mouth, nose, eyesore ears.

Wash your hand :-

- when you handle food
- before you eat
- if you handle garbage
- when you sneeze
- any time you touch an animal
- after use toilet.

Nail hygiene

Trim your nails regularly to keep them short and clean ,brush under them with a nail brush or wash cloth to rinse away buildup, dust, and germs.

- Wash your hands and nails with soap and water.
- Scrub the underside of your nails with a nail brush.
- Use an acetone-free nail polish remover to remove polish[3].

Toilet hygiene

Wash your hand after you use the restroom scrub with soap for 20-30 second Hand be sure to clean between your fingers, the back of your hands, and under your nails rinse with warm water and dry with a clean towel. If you don't have running water or soap ,an alcohol-based hand sanitiser will also work. use one that is at least 60 percent alcohol.It make time to learn a new habit at the beginning of the week and make it your priority.Practice it for a week or two when you fell comfortable with it, add a new one[4].

- Avoid artificial cleaning products.

ORAL HYGIENE

Oral hygiene is the practice of keeping your mouth clean and healthy. It involves brushing and flossing your teeth, and visiting the dentist regularly.

Menstrual hygiene

Menstrual hygiene is the practice of keeping clean and comfortable during menstruation.Its important for women and girl to have access to safe and affordable menstrual products and facilities.

- Wear lightweight, breathable clothing (such as cotton underwear)
- change your menstrual products regularly (Wearing a sanitary pad and change its regularly)
- Keep your genital area clean. Wash the outside of your vagina (vulva) and bottom every day.
- Use unscented toilet paper, tampons, or pads.
- Drink enough liquids.
- Track and monitor your period.
- Visit a healthcare provider for your animal check-up
- Avoid artificial cleaning products[5].

Oral hygiene

Oral hygiene is the practice of keeping your mouth clean and healthy. It involves brushing and flossing your teeth, and visiting the dentist regularly.

- Brush your Teeth: Brush your teeth twice a day with a spot-bristle brush and fluoride toothpaste. Brush gently in small circles and short back-and-forth strokes.
- Floss: Floss once a day to remove food and plaque from between your teeth. You can use dental floss, a water flosser, or an interdental brush.
- Rinse: Rinse your mouth with water after flossing.
- Brush your Tongue: Lightly brush your tongue or use a tongue scraper.
- See the Dentist: Visit the dentist regularly for checkups and cleanings[6].

Material and methods

Research design: Experimental research design (Pre- experimental one group pre-test & post-test design)
Research setting: - Selected secondary school at Patna, Bihar.
Sample size: - 60 secondary school students studying in selected school at Patna.

Sample inclusion criteria

1. Students, those who are studying in standard of 9th ,10th class in secondary school children .
2. Students ,those who a particular age group (12-16 year) in secondary school children.

Sample exclusion criteria

1. Students who are not willing to participate.
2. Student who are not available at the time of data collection.

Description of tools:

Researcher has divided tools into two sections.

Section A: - Demographic variables
Section B: - Self-structured questionnaire on personal hygiene .

Tool was prepared based on the experience and knowledge of researcher and review of literature. The content of the structured video assisted teaching program was validated by the researchers, experts.

Intervention: - Video assisted Structured Teaching Program

In this, a video assisted structured teaching program planned and prepared by the investigator to provide information to Secondary school students which includes the following aspects like hand hygiene, bathing, nail hygiene, toilet hygiene, oral hygiene, menstrual hygiene.The information transfer was done with the help of smart classroom teaching using projector the session was planned for 2 day for 45-45 minutes.

Data collection procedure:

Data collection was done from 16/04/2025 to 8/05/2025. All secondary school students who satisfied the sample selection criteria were included in the study. Parents and secondary school students were asked for their informed permission after receiving an explanation of the study's objectives . A self-structured questionnaire was used to administer a pre-test. After that, the planned structured video assisted teaching program was carried out, and students received post-tests utilizing the self-structured questionnaire.

Plan for data analysis: Analysis of the data for demographic variables of high school students was done using frequency and percentage distribution. The assessment of pre-test knowledge regarding personal hygiene was done by frequency & percentage distribution. For comparing the pre-test and post-test knowledge two-way repeated measures analysis was carried out across Pre- experimental one group pre-test & post-test.Chi-square test/Paired T-test Exact test was done to find the association between demographic variables and Pre-test and Post-test knowledge score. Statistical Package for Social Sciences (IBM SPSS Version 16), a statistical software for social sciences, was used to analyse the data.

Ethical Consideration of Study:

Permission was obtained from Institutional Ethics Committee. Written informed consent was obtained from parents of high school students; assent form was given.

Result

SECTION 1: Description of demographic variables of high school students in selected schools at Patna.

This section deals with the description of the demographic characteristics of the sample in terms of frequency and percentage. (Table 1-12)

Table 1-12: Description of demographic variables of high school students in selected schools at Patna.

N= 60

Table 1		
1. **Age in years**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. 12 years	13	21.67
b. 13 years	14	23.33
c. 14- 15 years	18	30.0
d. 16 years	15	25.0
Total	**60**	**100**

Table 2		
2. **Gender**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Male	23	38.33
b. Female	37	61.67
Total	**60**	**100**

Table 3		
3. **Religion**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Hindu	43	71.67
b. Muslim	12	20.0
c. Sikh	5	8.33
d. Other	0	0.0
Total	**60**	**100**

Table 4		
4. **Standard of study**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. 7^{th} standard	12	20.0
b. 8^{th} standard	13	21.67
c. 9^{th} standard	14	23.33
d. 10^{th} standard	21	35
Total	**60**	**100**

Table 5		
5. **Type of family**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Nuclear	30	50.0
b. Joint	24	40.0

Table 5		
c. Extended	6	10.0
Total	**60**	**100.0**

Table 6		
6. **Residential Area**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Urban	7	11.67
b. Semi Urban	15	25
c. Rural	21	35
d. Semi rural	17	28.33
Total	**60**	**100**

Table 7		
7. House holding / Type of house	**Frequency**	**Percentage**
a) Kutcha house	38	63.33
b) Pucca house	22	36.67
Total	**60**	**100.0**

Table 8		
8. **Source of water**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Hand pump	30	50.0
b. River	15	25.0
c. Well	12	20.0
d. Supply water	3	5.0
Total	60	**100**

Table 9		
9) Dietary pattern	**Frequency**	**Percentage**
a. Vegetarian	20	33.33
b. Non-vegetarian	30	50.0
c. Ovo-vegetarian	10	16.67
Total	**60**	**100.0**

Table 10		
10. Periodical health checkup	**FREQUENCY (F)**	**PERCENTAGE (%)**
1. Yes	84	84.0
2. No	16	16.0
TOTAL	**100**	**100.0**

Table 11

11) Do you have any previous knowledge on personal hygiene?	**Frequency**	**Percentage**
a. Yes	35	58.33
b. No	25	41.67
Total	**60**	**100.0**

Table 12		
12. **Source of information**	**FREQUENCY (F)**	**PERCENTAGE (%)**
a. Family	15	25
b. Friends	27	45
c. Teachers	12	20
d. Social media	6	10
Total	60	**100**

SECTION II

Knowledge ,Mean, Mean percentage and standard deviation of secondary school students regarding personal hygiene in pre test and post test table (13-16)

N=60

Table 13 Pre test knowledge level of secondary school students			
Knowledge level	**Pre test**		
	Rang	**Frequency**	**Percent**
a. Inadequate knowledge	1-10 (<50%)	30	50.0
b. Moderate knowledge	11-15 (51-75%)	24	40.0
c. Adequate knowledge	16-20 (>75)	6	10.0
Total		**60**	**100**

Table 14 Post test knowledge level of secondary school students			
Knowledge level	**Post Test**		
	Rang	**Frequency**	**Percent**
a. Inadequate knowledge	1-10 (<50%)	7	11.67
b. Moderate knowledge	11-15 (51-75%)	19	31.67
c. Adequate knowledge	16-20 (>75)	34	56.67
Total		**60**	**100**

Table 15 Mean, Mean percentage and standard deviation for the pre test knowledge of secondary school students							
Sl. No.	**Knowledge aspects**	**No. of Items**	**Max Score**	**Mean**	**Mean%**	**Median**	**SD**
Overall Knowledge		28	28	16.02	57.21	15	3.74

Table 16 Mean, Mean percentage and standard deviation for the post test knowledge of secondary school students							
Sl. No.	**Knowledge aspects**	**No. of Items**	**Max Score**	**Mean**	**Mean%**	**Median**	**SD**
Overall Knowledge		28	28	20.53	73.32	22	3.62

SECTION III

Comparison of pre test and post test knowledge score regarding personal hygiene among secondary school students table (17)

N=60

Table 17

Sl. No.	Knowledge aspects	Pre test		Post test		Mean difference	t Value	Df	Inference
		Mean	S D	Mean	S D				
Overall Knowledge		16.02	3.74	20.53	3.62	4.52	6.726	59	S

From the table 17 it is evident that the obtained "t" value 6.726 is greater than the table value at 0.05 level of significance. Therefore, "t" value is found to be significant. It means there is gain in knowledge level of secondary school students regarding personal hygiene. This supports that video assisted teaching program on personal hygiene in increasing the knowledge level of secondary school students.

Discussion

In our study that majority 30% of the secondary school students were aged 14-15 years, followed by 25% of them were aged 16 years, 23.33% of them were aged 13 years and remaining 21.67% of the secondary school students were aged 12 years the majority 61.67% secondary school students were females and remaining 38.33% , 71.67% of the secondary school students were belongs to Hindu religion, followed by 20% of the secondary school students were Muslim, remaining 8.33% were belongs to Christian,35% of the secondary school students were studying in 10^{th} standard, followed by 23.33% were studying in 9^{th} standard, followed by 21.67% were studying in 8^{th} standard and remaining 20% of the secondary school students were studying in 7^{th} standard,50% of the secondary school students were belongs to Nuclear family, followed by 40% were belongs to Joint family and remaining 10% of the secondary school students were belongs to Extended family,35% of the secondary school students residence were in urban area, followed by 28.33% of the secondary school students residence were in Semi urban area followed by 25% of the secondary school students residence were in rural area and remaining 11.67% of the Antenatal mothers residence were in semi rural area,63.33% of the secondary school students were had House holding / Type of house kutcha house and remaining 36.67% were had House holding / Type of house pucca house.

In this study 50% of the secondary school students had inadequate knowledge, followed by 40% had moderate knowledge and 10% had adequate knowledge regarding personal hygiene in the pre test. After administration of video assisted teaching program 56.67 % of the secondary school students had adequate knowledge, followed by 31.67% had moderate knowledge and 11.67% of them had inadequate knowledge regarding personal hygiene and overall Mean±SD of pretest

Knowledge score was 16.02 ±3.74 and mean percentage of 57.21% and The table 4.22 shows that the overall Mean±SD of post test knowledge score was 20.53 ±3.62 and mean percentage of 73.32% and the obtained "t" value 6.726 is greater than the table value at 0.05 level of significance. Therefore, "t" value is found to be significant. It means there is gain in knowledge level of secondary school students regarding personal hygiene. This supports that video assisted teaching program on personal hygiene in increasing the knowledge level of secondary school students.

Conclusion

Based on the findings, it can be inferred that the Structured Teaching video assisted Program was highly effective in raising secondary school students' awareness of personal hygiene . There was significant improvement in post-test level of knowledge when compared to pre-test level of knowledge regarding personal hygiene secondary school children and The comparison between pre-test and post-test was found to be significant at p,0.05 so the structured teaching programme is effective in improving knowledge regarding personal hygiene secondary school children.

Public Health Message

Protect your circle: it's in your hands, Good hygiene isn't just about "looking clean"—it is your first line of defense against germs, viruses, and bacteria. By following these simple daily habits, you can reduce the risk of respiratory infections by up to 21% and diarrheal diseases by nearly 50%

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