



RESEARCH ARTICLE

EXPLORATORY STUDY TO ASSESS THE LEVEL OF KNOWLEDGE AND SKILLS REGARDING HAND HYGIENE AMONG HOUSEWIVES

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ABSTRACT

An exploratory study was conducted among the housewives of Bahadarpur Jatt, Haridwar. A self structured knowledge questionnaire and skill checklist was used to collect data from subjects regarding hand hygiene. A total of 100 housewives participated in this study. According to the findings of the study, Majority 48% had average knowledge regarding hand hygiene. Housewives who wash their hands with soap and water after defecation (100%), before cooking food (89%), before eating food (94%), after touching animals (81%), after blowing nose (99%), after touching dustbin (95%), before serving food (77%) during/ after traveling (66%), after brooming (84%) and after dusting/mopping (100%). This study shows that there is a high percentage of housewives who practiced hand hygiene with soap and water after the critical moment of hand hygiene. The findings indicate that there is a need for a health education program targeting the housewives for encouraging them and their sustainable hand hygiene practice is recommended.

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INTRODUCTION

Hand hygiene is as old as a man; it is not a recent practice. Hand washing practices were used by Jews before eating. We can clean our hands with the help of soap and water by rubbing them thoroughly and rinsing under running water. Removal of microorganisms is the important principle of hand washing.¹ Handling objects, Food preparation, cleaning objects, Touching pet animals, Shaking of hands and petting are some of the activities in which hands are used, these activities result in contamination of hands. Transmission of germs occurs by eating and preparing food with contaminated hands, which causes ill health.² Hand washing with soap and water is more preferable than hand washing with water only because application of water alone is not capable to remove fat, oil and protein which are component of organic soil. Therefore it is necessary for removal of dirt and microorganisms from skin to apply additional soap. Warm water is more effective than cold water.³ Many people in low income communities use ash and soil rather than soap for washing their hands. These agents are more effective than washing hands with water alone and less effective than washing hands with soap and water.

WHO recommended ash or sand as an alternative to soap when soap is not available. Ash is more effective than soil because of its alkaline property.⁴ Diarrheal diseases and pneumonia are the top two killer diseases of young children due to which about 1.8 million children under the age of 5 die each year around the world. 1 out of every 3 children who get sick by diarrhea and respiratory infection such as pneumonia can be protected by the following hand washing. Inadequate hand hygiene amounts to 2.90,000 deaths. Most of the studies confirmed that the diarrheal infections, ARI, eyes, skin and helminthes infections in children can be reduced by following hand washing with soap at critical moments; The spread of microorganisms occurs through contact (direct or indirect), air, food, vectors. Interrupting the chain of transmission should be the preventive strategies, for which hand hygiene is the only cheapest and most effective measure. "Microorganisms can be suspended by washing hands properly, and infectious diseases can be reduced by following proper hand washing technique." Global hand hygiene council conducted a study in 2012 and revealed a result that there is a poor level of hand hygiene among Indians. Only 42% of Indians said that hand hygiene is a necessary and effective way to prevent flu and viral infections. 29% do

not wash their hands after coughing and sneezing, and 70% not wash for the recommended duration (at least 20 second). 10

Methods

Design: A Research design was planned to use for this study was exploratory research design. The study was conducted in a selected housewives who falls between age group of 22-25 in bahadurpur jatt haridwar, Uttarakhand, India.

Sample: 100 Housewives was conducted from bahadurpur jatt haridwar and snow ball sampling was used. Inclusion criteria , Housewives who falls between age group of 22-50 year. All participants consented to be a part of the study.

Data Collection Tools: Three primary tools were used to assess the participants' knowledge and skills. Following tools were used.

- **Demographic profile** -The demographic profile was included in the items depending upon the background information of the housewife. it included age religion education type of family number of children's in the family previous knowledge regarding and hygiene and source of knowledge. This tool had factual information so it does not containing scoring
- **Knowledge Questionnaire** – Based on literature opinion of validators and investigators on knowledge questionnaires was developed to assist the subject knowledge regarding and hygiene.The sum of 15 items regarding knowledge was given to assess the knowledge.

Scoring of tool- In the Questionnaire each questions had to response from the dichotomous option where subjects were asked to select the most appropriate answer. The correct response was given score of one and incorrect response was given score of zero. Knowledge score was arbitrary classified as good level of knowledge ranges from 13 to 15, average level of knowledge range from 9 to 12, poor level of knowledge range from 5 to 8.

Skill checklist - Structured skill checklist was developed to determine the skills of housewife tool was developed on the related review of literature opinion of validator and investigators on experience.

Scoring of tool- the checklist consists of tennis girls each skill contain two option yes or no, positive answer was code 1 mark and negative score zero mark.

Statistical Analysis: Data were analyzed using SPSS software. Descriptive statistics were used to summarize participant demographics and baseline scores, Significance was set at $p < 0.05$.

RESULTS

Section 1: Frequency distribution of demographic profile

The participants were well-matched in terms of age, education type of family number of children's previous knowledge regarding and hygiene source of information regarding and hygiene.

Demographic Variable	Frequency(n)	Percentage (%)
Age (years)		
22-26	71	71(%)
27-30	29	29(%)
Education		
Informal Education	05	05(%)
secondary	75	75(%)
Graduation	13	13(%)
Post- Graduation	07	07(%)
Type of family		
Nuclear	43	43(%)
Joint	57	57(%)
Number of Children		
1-3	74	74(%)
4-6	26	26(%)
Previous knowledge regarding hand hygiene		
yes	100	100(%)
Source of information regarding hand hygiene		
Family	82	82(%)
Television	08	08(%)
School	10	10(%)

Data presented in Table: 1 depict the frequency distribution of demographic profile . Most 71% subject were between the age group of 22-36 year and 29% per between the age group of 37 -50 year. Most 75% had secondary education, 13% subject for graduate, 07% per postgraduate, remaining 05% had informal education. Most 47% of subject are from joint family and 43% are from nuclear family more 74% of subject have 1-3 children's and 26 have 4-6 childrens. Maximum 100% subject had previous knowledge regarding and hygiene source of information among 82% subject was family, 10% school and 8% television.

Section 2: distribution of level of knowledge of housewife regarding hand hygiene

	LEVEL OF KNOWLEDGE
GOOD (13-15)	44%
AVERAGE (9-12)	48%
POOR (5-8)	8%

Data presented in table number 3: Depicts the percentage of skills items. Majority 100% housewife agreed that they wash their hands after using toilets, 89% before cooking food, 94% before eating food, 81% after touching animals, 99% after blowing nose, 95% after touching dustbin, 77% before serving food, 66% during and after travelling, 84% after blooming and 100% after dusting and moping.

Section 3. Skill item analysis

S.NO	SKILL	YES	NO
1	Wash hand after using toilet	100%	00%
2	Wash hand before cooking foods	89%	11%
3	Wash hand before eating food	94%	06%
4	Wash hand after touching animals	81%	19%
5	Wash hand after blowing nose	99%	01%
6	Wash hand after touching dustbin	95%	05%
7	Wash hand before serving food	77%	23%
8	Wash hand during/after travelling	66%	34%
9	Wash hand after brooming	84%	16%
10	Wash hand after dusting moping	100%	00%

While 11% of women do not wash their hands before cooking food, 6% before eating food, 19% after touching animals, 1% after blowing nose, 05% after touching dustbin, 23% before serving food, 34% during after travelling, and 16% after blooming.

DISCUSSION

The findings of the study have discussed based on objective and statistical analysis. Total hundred housewives were selected snow ball sampling technique test was conducted by using a knowledge question as and skill check list.

Knowledge score of housewives regarding Hand hygiene:

The study shows that majority of subjects 48% were found to have Average Knowledge, 44% have Good knowledge and 8% have poor knowledge regarding hand hygiene. This result finding is supported by the study conducted on 2014 by K.Seema Aithal, Miti Judith Ogorchukwu, Vidya Prabhu, Prafulla Shriyan, Uday Narayan Yadav on Hand washing knowledge and practice among mothers of under-five children in coastal Karnataka, India. Study result reveals that majority of the mothers (96.7%) knew the importance of hand washing for preventing diseases.

Skills item analysis: Majority of subjects wash their hands 100% After using toilet, 89% before cooking food, 94% before eating food, 81% after touching animals, 99% after blowing nose, 95% after touching dustbin, 77% before serving food, 66% during/ after travelling, 84% after brooming and 100% after dusting moping. This result finding is supported by the study conducted on 2014 by K.Seema Aithal, Miti Judith Ogorchukwu, Vidya Prabhu, Prafulla Shriyan, Uday Narayan Yadav on Hand washing knowledge and practice among mothers of under-five children in coastal Karnataka, India. Study result reveals that critical moments where hand washing with soap was crucial like after defecation (96.66%), Before handling food (83.33%), Before cooking (31.1%) and before feeding child (38.9%).

Implications: The findings of the study has implication in different field of Nursing that is Nursing practice, nursing education, nursing administration and nursing research.

Nursing Education

The investigator had drawn the following implications for nursing education. Nursing educator can encourage the student necessary to recognise and housing program to Housewives.

- Health education should be imparted regularly based on evidenced based practice in all nursing curriculum.
- The faculty member in nursing education can motivate the students to arrange health programs for housewives regarding techniques hand hygiene in attractive way, to make them to practice it.
- Nursing curriculum should prepare nurses to motivate the housewives to improve the knowledge, practice and attitude regarding hand hygiene.

Nursing Administration

- Nurse administrators should motivate the subordinates to participate in various programs to improve their knowledge and skills, with regards to hand hygiene practice.
- Nurse administrators can motivate the nurses to organize health camps and other programs to housewives at least

once in a year, to motivate the housewives on hand washing practices.

- Nurse administrators can organize seminars on prevention of infection and importance of hand hygiene among hand washing.
- Nurse administrators can create awareness among housewives regarding consequences of poor hand hygiene.

Nursing research

- Extensive research can be conducted to find out the health problems that can occur due to poor hand washing and that can be incorporate in a nursing education practice.
- The impact of hand hygiene on cross infection should be subjected to research and findings can be communicated and utilise in practice.
- **Nursing Practice**
- The community health nurses should take an initiate and imparting knowledge and practice to housewives through periodic health education program in community setting.
- The community health nurse have major role in creating awareness of healthy hand hygiene practices to reduce the mortality and morbidity.

Limitations

- The study was confined to small sample size.
- The investigator had to rely on the responses of housewives.
- **Recommendation**
- Based on the research findings the recommendations are as follow.
- A similar study can be conducted to assess the knowledge and practice among different age group of school going children.
- A comparative study can be conducted among the urban and rural area housewives.
- A study can be conducted with large sample to generate findings.
- An experimental study can also be conducted.
- A study may be done on other professional institutions like medical, paramedical etc.

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