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RESEARCH ARTICLE

A COMPARATIVE RESEARCH STUDY TO ASSESS THE KNOWLEDGE AND PRACTICE REGARDING HAND HYGIENE TO PREVENT INFECTION AMONG RURAL AND URBAN PEOPLE IN SELECTED AREAS OF AHMEDABAD IN VIEW TO DEVELOP AN INFORMATION BOOKLET

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Abstract

Hand hygiene is defined as a behavior of cleaning hands with soap and water and hand rubbing using sanitizer without soap and water. The present study is conducted to assess the knowledge and practice regarding hand hygiene to prevent infection among rural and urban people in selected areas of Ahmedabad. A quantitative research approach was used in the study to assess the knowledge and practice regarding hand hygiene to prevent infection among rural and urban people in selected areas of Ahmedabad in view to develop an information booklet. The investigator adopted convenient sampling technique to select the samples. Samples who met the criteria for sample selection were selected. Data was collected by self-structured knowledge questionnaire and a checklist. The result shows that the knowledge and practice of the people residing in urban area is more than the people residing in the rural area. The mean score of knowledge of urban area is 13.54 and rural area is 13.1. The mean score of practice of urban area is 10.67 and rural area is 8.16. The t-value of knowledge is 0.51 and practice is 4.11. The present study shows that the knowledge and practice of the people residing in urban area is more than the people residing in the rural area regarding hand hygiene.

Introduction:-

Hand hygiene is the act of cleansing the hands with water and soap, hand sanitizer, hand rub for the purpose of removing soil or microorganism, in order to prevent cross contamination and minimize nosocomial infections. Proper hygiene is the key to reduce occurrence of infectious disease in rural and urban area. Poor hand hygiene was significantly linked to higher incidence of infectious disease, medical visits and absence from classes or work. An infection is the invasion of an organism's body tissues by disease causing agents, their multiplication, the reaction of host tissues to the infectious agents and the toxins they produce. An infectious disease, also known as communicable disease, is an illness resulting from an infection. The infectious agents are virus, bacteria, fungal, parasites and arthropods. Some of the infectious disease such as hepatitis B, Diphtheria, Corona Virus etc.

The National Sample Survey (NSS) 76th round report, 2019, reveals that 25.3 per cent households in rural India and 56 per cent in urban wash hands with soap or detergent before a meal; 2.7 per cent households in India wash hands

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with ash, mud, and sand before meals. In rural areas, 70 per cent people wash hands with water without soap or detergent before a meal and in urban areas, 42 per cent of people follow this practice. What is more alarming is that about 26 per cent people in India don't wash their hands with soap or detergent after defecation. 13.4 per cent households (15.2 per cent rural and 9.8 per cent urban) wash hands only with water after defecation. Two-third toilets in India have water and soap/detergent available in or around the toilets. About 1.8 million children under the age of 5 die each year from diarrheal diseases and pneumonia, the top two killers of young children around the world. Reduces diarrheal illness in people with weakened immune systems by 58%. Reduces respiratory illness, like colds in the general population by 16-21%. Reduces absenteeism due to gastrointestinal illness in school children by 29-57%. If the person suffers from infection such as fatigue, loss of appetite, weight loss, fever, night sweats, chills, aches and pains. others are specific to individual body parts, such as skin rashes, coughing or runny nose. In present scenario Communicating the importance of washing hands with soap to avoid covid-19 spread is a daunting task in India as only 35.8 per cent households in the country practice hand-washing with soap or detergent before a meal while 60 per cent households wash hands only with water.

Methodology:-

A Quantitative research approach will be used in the study to assess knowledge and practice regarding hand hygiene to prevent infection among rural and urban people in the selected areas of Ahmedabad. A nonexperimental comparative research design. It is a quantitative research method That attempts to collect quantifiable information of the population. In this study, the Investigator has developed self-structured questionnaire for assessing the knowledge Of population and checklist for assessing the practice of population. The sample consists of 30 samples from urban area and 30 samples from rural area of adults of age 25-65 years from selected urban and rural areas of Ahmedabad.

A self-structured questionnaire to assess the knowledge of samples on knowledge and practice regarding hand hygiene in prevention of Infection for that included demographic data in the sample such as… age, gender, Location of area, educational status of the candidate, occupational status. Total items will be 20 and total maximum score will be 20. Each item will carry one Mark. Every correct answer will be given a score of 1 and for wrong answer 0 score. Checklist will check the practice of samples regarding hand hygiene. Total 15 Statements will be given to samples to respond. Favorable answers will be given 1 Point. Unfavorable answers will be given 0 point.

Information booklet will be developed from the samples from Ahmedabad. The content will be divided into broad 12 areas with pictures; the material will be developed in simple English and Gujarati language. The information booklet will be divided in 12 area units. The first area is introduction of hand washing, the second area is definition and purpose of hand washing, the third area is sources of hand contamination at home, the fourth area is sources of hand contamination outside Home, the fifth area is how organisms transfer through hands, the sixth area is Problem of unhygienic hands, the seventh area is indications of hand washing, the Eighth area is types of hand washing, the ninth area is techniques and benefits of hand Washing with soap and water, the tenth area is techniques and benefits of rubbing Hands with sanitizer, the eleventh area is important considerations and the twelfth area Is importance of hand washing. Group discussion will be adopted as the method of Teaching.

Results:-

60 samples were selected in the study in that 30 sample of urban and 30 samples of rural areal among which of them30% of samples (9) were in the age group of 25-38 years, 46.67% of sample (14) were in the age group of 39-52 years and 23.33% of sample (7) were In the age group of 53-65 years. 23.33% of samples (7) were in the age group of 25-38 years, 40% of sample (12) were in the age group of 39-52 years and 36.67% of sample (11) were in the age group of 53-65 years. 63.33% of sample (19) were male and 36.67% of sample (11) Were female, and 0% of sample (0) were others. 53.33% of sample (16) were male and 46.67% of sample (14) Were female, and 0% of sample (0) were others. 30% of samples (9) were having high class economical Status, 63.33% of samples (19) were having middle class economical status and 6.67% of Samples (2) were having lower class economical status. 0% of samples (0) were having high class economical status, 46.67% of samples (14) were having middle class economical status and 53.33% of samples (16) were having lower class economical status.20% of samples (6) were illiterate, 53.33% of samples (16) were Having primary education and 26.67% of samples (8) were having secondary education or Above. 13.33% of people have poor knowledge, 63.33% of people Have average knowledge and 23.33% of people have good knowledge in urban area. Above column chart shows that 20.00% of people have poor knowledge, 60.00% of people Have average knowledge and 20.00% of people have good knowledge in rural area.

00.00% of people have poor practice, 56.67% of people have Average practice and 43.33% of people have good practice. Above column chart shows that 16.67% of people have poor practice, 60.00% of people have Average practice and 23.33% of people have good practice. In urban area, mean score is 13.54 and SD is 2.92. In rural area, mean score is 13.1 and SD is 3. In t-test, the calculated t-value for knowledge of samples is 0.51. So, the calculated t-value is Less than the tabulated t-value (2.0). Hence, the null hypothesis is accepted. In urban area, mean score is 10.67 and SD is 2.15. In rural area, mean score is 8.16 and SD is 2.6.In t-test, the calculated t-value for knowledge of samples is 4.11. So, the calculated t-value is More than the tabulated t-value (2.0). Hence, the null hypothesis is rejected.

Description of demographic variable of samples according to age of people in **URBAN AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Age of people	25-38 years	9	30.00%
2		39-52 years	14	46.67%
3		53-65 years	7	23.33%

Description of demographic variable of samples according to age of people in **RURAL AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Age of people	25-38 years	7	23.33%
2		39-52 years	12	40.00%
3		53-65 years	11	36.67%

Description of demographic variable of samples according to gender of people in **URBAN AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Gender of people	Male	19	63.33%
2		Female	11	36.67%
3		Other	0	0%

Description of demographic variable of samples according to gender of people in **RURAL AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Gender of people	Male	16	53.33%
2		Female	14	46.67%
3		Other	0	0%

Description of demographic variable of samples according to economical status of People in **URBAN AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Economical status of people	High class	9	30%
2		Middle class	19	63.33%
3		Low class	2	6.67%

Description of demographic variable of samples according to educational status of People in **URBAN AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE
1	Educational status of people	Illiterate	0	0%
2		Primary education	9	30%
3		Secondary education or above	21	70%

Description of demographic variable of samples according to educational status of people in **RURAL AREA**

SR. NO.	DEMOGRAPHIC VARIABLE	CATEGORIES	FREQUENCY	PERCENTAGE

1	Educational status of people	Illiterate	6	20%
2		Primary education	16	53.33%
3		Secondary education or above	8	26.67%

Description of comparison of samples according to level of knowledge of people in urban and **RURAL AREA**

	Mean	**SD**	**t-value**
Urban	13.54	2.92	0.51
Rural	13.1	3	

Description of comparison of samples according to level of practice of people in urban and **RURAL AREA**

	Mean	**SD**	**t-value**
Urban	10.67	2.15	4.11
Rural	8.16	2.60	

Discussion:-

This section evaluated findings on the present study. The discussion is organized based on the Findings of the study. The theoretical framework of the study was based on concept of general System Theory.

Conclusion:-

The Study intends to assess the knowledge and practice regarding hand hygiene on Prevention of infection among aged group of 25 to 65 years in selected areas of Ahmedabad. After being given the information booklet, to assess the knowledge and Practice of hand hygiene and health issues related to unhygienic hands.

Reference:-

1. R. TamilarasiRabavan et al. Knowledge and practice of hand washing among school going adolescents in Chennai. International Journal of Health Sciences & Research, volume 6. August 2016: 147- 155.
2. Samit Ray et al. Hand washing practices in urban and rural communities of Kolkata. Indian Journal of Public Health, volume 53. July 2009: 192-197.
3. SanghamitraPati et al. Hand hygiene behavior among urban slum children and their care takers in Odisha, India. Journal of Preventive Medicine and Hygiene. August 2014: 1-4.
4. Harshal T Pandve et al.Study of hand washing practices in rural community of Pune. International Journal of Community Medicine and Public Health, volume 3. January 2016: 190-193.
5. Ashwini L.H et al. Assessment of hand hygiene practices among rural population. International Journal of Medical Science and Public Health. November 2019: 128-133.
6. Priyanka Dekate, ArchanaMourya. Compare the Knowledge and Attitude towards Hand washing Technique. International Journal of Scientific and Research Publication, volume 7. September 2017: 59- 65.
7. S. K. Ray et al. Hand washing practices in urban and rural communities in and around Kolkata, West Bengal. Indian Journal of Public Health, volume 9. November 2019: 128-133.
8. Shared Gidado et al. Cholera outbreak in a naive rural community in Northen Nigeria. Pan African Medical Journal. May 2018: 1-7.
9. Nana Guo et al. Effect of hand washing and personal hygiene on hand foot mouth disease. Journal of Medicine. July 2017: 1-7.
10. SabiraDekhar et al. Knowledge, attitude and practices related to COVID-19 pandemic among J&K, India. Indian Journal of Public Health, volume 64. June 2020: 205-210.
11. Community of Pune, India. International Journal of community medicine and public health Pune, India. January 2016.
12.Samit Kumar Ray, MadhumitaDobe. Hand washing practices in Urban and rural communities in and around Kolkata, West Bengal. Indian Journal of public health, 53(3): 192-195. (PubMed)
13.Anuradha P, Yasoda Devi P, Prakash MS. Effect of handwashing agents on bacterial contamination. Indian Journal of Pediatrics 1999;66(1): 7-10. [CRSREF 13336096] (PubMed)
14.Appiah Labi, Noah obeng – Nkrumah. Hand hygiene practices and perceptions among healthcare workers in Ghana: A Wash intervention study, Dec 2019; 31;13(12): 1076-1085.
15.Rana K. Mohammed. International Journal of scientific Advances ISSN: 27087972, volume 1, Issue 1, Jul – Aug 2020.

16.Paul N. Zivich MPH, Abigail S. Gancz, Allison E. Aiello PHD. American Journal of infection control. Volumr 46, Issue 4, April 2018: 448-455.
17.Hanna Mark et al. Associations of hand washing frequency with incidence of acute respiratory tract infections and influenza-like illness in adults. Bio Medical Central Infections Diseases.2014: 1-8.
18.K.B. Kam et al. Associations between presence of hand washing stations and soap in the home and diarrhea andrespiratory illness in children less than five years in rural areas. Tropical Medicine & International Health. January 2014.
19.Miriam Karinja et al. Risk reduction of diarrhea and respiratory infections following a community health education program. Bio Medical Central Infections Diseases. 2020: 1-8.
20.Clement. I. Nursing Procedure Book, 2ndedition, Published by Elsevier. New Delhi, India. 2017: 69-385.
21.K. Grove, Jennifer R. Gray. Understanding nursing research: building an evidencebased practice, 7th edition, Elsevier publication. Page no: 68.