PROMOTING HYGIENE FOR A HEALTHY SOCIETY

By Miss Marfa Bano, Nursing Tutor, BGSBU, Rajouri

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The terms cleanliness and hygiene are often used interchangeably, which can cause confusion. In general, hygiene refers to practices that prevent spread of disease-causing organisms. Cleaning processes (e.g., handwashing) remove infectious microbes as well as dirt and soil, and are thus often the means to achieve hygiene.

Other uses of the term appear in phrases including *body hygiene, personal hygiene, sleep hygiene, mental hygiene, dental hygiene,* and *occupational hygiene*, used in connection with public health. *Hygiene* is also the name of a branch of science that deals with the promotion and preservation of health.

Hygiene is a set of practices performed to preserve health. According to the World Health Organization (WHO), "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases.

Many people equate hygiene with 'cleanliness,' but hygiene is a broad term. It includes such personal habit choices as how frequently to bathe, wash hands, trim fingernails, and change clothing. It also includes attention to keeping surfaces in the home and workplace, including bathroom facilities, clean and pathogen-free.

Some regular hygiene practices may be considered good habits by a society, while the neglect of hygiene can be considered disgusting, disrespectful, or threatening.

Home and everyday hygiene

Home hygiene pertains to the hygiene practices that prevent or minimize the spread of disease at home and other everyday settings such as social settings, public transport, the workplace, public places etc.

At present, these components of hygiene tend to be regarded as separate issues, although based on the same underlying microbiological principles. Preventing the spread of diseases means breaking the chain of infection transmission. Simply, if the chain of infection is broken, infection cannot spread. In response to the need for effective codes of hygiene in home and everyday life settings the International Scientific Forum on Home Hygiene has developed a risk-based approach based on Hazard Analysis Critical Control Point (HACCP), also referred to as "targeted hygiene." Targeted hygiene is based on identifying the routes of pathogen spread in the home and introducing hygiene practices at critical times to break the chain of infection.

The main sources of infection in the home are people (who are carriers or are infected), foods (particularly raw foods) and water, and domestic animals (in the U.S. more than 50% of homes have one or more pets). Sites that accumulate stagnant water—such as sinks, toilets, waste pipes, cleaning tools, face cloths—readily support microbial growth and can become secondary reservoirs of infection, though species are mostly those that threaten "at risk" groups. Pathogens (potentially infectious bacteria, viruses etc.—colloquially called "germs") are constantly shed from these sources via mucous membranes, feces, vomit, skin scales, etc. Thus, when circumstances combine, people are exposed, either directly or via food or water, and can develop an infection.

Handwashing

Hand hygiene is defined as handwashing or washing hands and nails with soap and water or using a waterless hand sanitizer. Hand hygiene is central to preventing spread of infectious diseases in home and everyday life settings.

In situations where handwashing with soap is not an option (e.g., when in a public place with no access to wash facilities), a waterless hand sanitizer such as an alcohol hand gel can be used. They can be used in addition to handwashing to minimize risks when caring for "at risk" groups. To be effective, alcohol hand gels should contain not less than 60%v/v alcohol.

The **World Health Organization** recommends handwashing with ash if soap is not available in emergencies, schools without access to soap and other difficult situations like post-emergencies where use of (clean) sand is recommended, too. Use of ash is common in rural areas of developing countries and has in experiments been shown at least as effective as soap for removing pathogens.

Food hygiene at home

Food hygiene is concerned with the hygiene practices that prevent food poisoning. The five key principles of food hygiene, according to WHO, are:

- Prevent contaminating food with mixing chemicals, spreading from people, and animals .
- Separate raw and cooked foods to prevent contaminating the cooked foods.
- Cook foods for the appropriate length of time and at the appropriate temperature to kill pathogens.
- Store food at the proper temperature.
- Use safe water and raw materials

Hygiene in the kitchen, bathroom and toilet

Routine cleaning of (hand, food, drinking water) sites and surfaces (such as toilet seats and flush handles, door and tap handles, work surfaces, bath and basin surfaces) in the kitchen, bathroom and toilet reduces the risk of spread of pathogens. The infection risk from flush toilets is not high, provided they are properly maintained, although some splashing and aerosol formation can occur during flushing, particularly when someone has diarrhea. Pathogens can survive in the scum or scale left behind on baths and wash basins after washing and bathing.

Laundry hygiene

Laundry hygiene involves practices that prevent disease and its spread via soiled clothing and household linens such as towels. Items most likely to be contaminated with pathogens are those that come into direct contact with the body, e.g., underwear, personal towels, facecloths, nappies. Cloths or other fabric items used during food preparation, or for cleaning the toilet or cleaning up material such as faeces or vomit are a particular risk..

In 2013 the International Scientific Forum on Home Hygiene (IFH) reviewed some 30 studies of the hygiene effectiveness of laundering at temperatures ranging from room temperature to 70 °C, under varying conditions. A key finding was the lack of standardisation and control within studies, and the variability in test conditions between studies such as wash cycle time, number of rinses, etc. The consequent variability in the data (i.e., the reduction in contamination on fabrics) obtained, in turn makes it extremely difficult to propose guidelines for laundering with any confidence, based on currently available data. As a result, there is significant variability in the recommendations for hygienic laundering of clothing etc. given by different agencies.

Medical hygiene at home

Medical hygiene pertains to the hygiene practices that prevents or minimizes disease and the spreading of disease in relation to administering medical care to those who are infected or who are more "at risk" of infection in the home. Across the world, governments are increasingly under pressure to fund the level of healthcare that people expect. Care of increasing numbers of patients in the community, including at home is one answer, but can be fatally undermined by inadequate infection control in the home. Increasingly, all of these "at-risk" groups are cared for at home by a carer who may be a household member who thus requires a good knowledge of hygiene. People with reduced immunity to infection, who are looked after at home, make up an increasing proportion of the population (currently up to 20%). The largest proportion are the elderly who have co-morbidities, which reduce their immunity to infection. It also includes the very young, patients discharged from hospital, taking immuno-suppressive drugs or using invasive systems, etc. For patients discharged from hospital, or being treated at home special "medical hygiene" (see above) procedures may need to be performed for them e.g. catheter or dressing replacement, which puts them at higher risk of infection.

Household water treatment and safe storage

Household water treatment and safe storage ensure drinking water is safe for consumption. These interventions are part of the approach of self-supply of water for householdsDrinking water quality remains a significant

problem in developing and in developed countries; even in the European region it is estimated that 120 million people do not have access to safe drinking water.

Methods for treatment of drinking water, include:

- Chemical disinfection using chlorine or iodine
- Boiling
- Filtration using ceramic filters
- Solar disinfection - Solar disinfection is an effective method, especially when no chemical disinfectants are available
- UV irradiation - community or household UV systems may be batch or flow-though. The lamps can be suspended above the water channel or submerged in the water flow.
- Combined flocculation/disinfection systems – available as sachets of powder that act by coagulating and flocculating sediments in water followed by release of chlorine.
- Multibarrier methods – Some systems use two or more of the above treatments in combination or in succession to optimize efficacy.

Individual standards for personal hygiene vary from person to person, and depend on factors including culture, personal preference and learned habits. Laying out specific objectives for personal hygiene helps you meet your own goals.

PERSONAL HYGIENE

Proper personal hygiene means taking care of every aspect of your body, from keeping it clean to looking your best. Basic hygiene should be taught to children at an early age to help establish good habits. Parents can reinforce good hygienic behavior by creating routines and being good role models. Personal hygiene practices include bathing, washing your hands, keeping your hair clean and brushing your teeth. Your personal, social and professional worlds are all affected by hygiene habits.

Disease Prevention

Wash your hands often to prevent the spread of disease. Each time you use the restroom, wash your hands before leaving the area to remove germs. Wash your hands before you handle food, eat or take out contact lenses.

Nice Smile

Most people want to keep their teeth and have attractive smiles. This requires frequent brushing and good dental habits. If you fail to brush your teeth, they are more likely to become discolored, get cavities and possibly fall out. According to the American Academy of Periodontology, regular brushing and flossing can significantly decrease the risk of gum disease, which can cause bad breath or even worse—tooth loss.

Lower Health Care Costs

Since it curbs the spread of disease, good hygiene results in lower health care costs. Brushing your teeth and keeping clean could eliminate unnecessary visits to your dentist and doctor, saving you money.

Dandruff Prevention

Good hygiene includes washing your hair and brushing it regularly to prevent dandruff and other scalp diseases. It's embarrassing when you glance down at your dark shirt and see white skin flakes that everyone else has probably already noticed.

Self-Esteem

When you're clean, you'll feel much better about yourself than when you're dirty. People will react more positively to you, which will also help raise your self-esteem.

Sex Appeal

You are more likely to appeal to a potential partner if you practice good hygiene. Dirty hair, discolored teeth and bad breath can keep you from having romance in your life.

Social Acceptance

Good hygiene is critical for social acceptance, because most people don't want to be around others who are dirty or smelly. Children who practice good hygiene eliminate one major reason for other kids to make fun of or bully them. It's sad to see someone on the playground getting taunted for smelling bad or having dirty hair.

Professional Acceptance

Most employers prefer employees who are clean and well-groomed. Good hygiene can make the difference in being hired and getting promotions.

Being a Role Model

Parents should set an example for their children by practicing good hygiene. Children are more likely to do what you do than what you say.

Pain Prevention

Periodontal disease can cause chronic mouth pain in advanced stages, the American Academy of Periodontology reports. The main cause of gum disease is plaque buildup, which can be reduced with proper oral hygiene.

MENSTRUAL HYGIENE

Menstruation and menstrual practices are still clouded by taboos and socio-cultural restrictions resulting in adolescent girls remaining ignorant of the scientific facts and hygienic health practices, which sometimes result into adverse health outcomes.

Menstruation is a phenomenon unique to the females. The onset of menstruation is one of the most important changes occurring among the girls during the adolescent years. The first menstruation (menarche) occurs between 11 and 15 years with a mean of 13 years.

Adolescent girls constitute a vulnerable group, particularly in India where female child is neglected one. Menstruation is still regarded as something unclean or dirty in Indian society. The reaction to menstruation depends upon awareness and knowledge about the subject. The manner in which a girl learns about menstruation and its associated changes may have an impact on her response to the event of menarche. Although menstruation is a natural process, it is linked with several misconceptions and practices, which sometimes result into adverse health outcomes.

Hygiene-related practices of women during menstruation are of considerable importance, as it has a health impact in terms of increased vulnerability to reproductive tract infections (RTI). The interplay of socio-economic status, menstrual hygiene practices and RTI are noticeable. Today millions of women are sufferers of RTI and its complications and often the infection is transmitted to the offspring of the pregnant mother.

Effective menstrual hygiene is vital to the health, well-being, dignity, empowerment, mobility and productivity of women and girls. Poor menstrual hygiene may cause stigma and ill health, and can lead to school absenteeism and increased school drop-out rates. Menstruation is a taboo subject across the world, which can lead to misinformation and the promotion of dangerous menstrual hygiene practices.

The issue of menstrual hygiene has been neglected and there is reluctance even within the Water, Sanitation and Hygiene (WASH) sector to talk openly about this important subject. However, menstrual hygiene is gaining growing attention as a crucial aspect to achieving improved child health, education retention and gender equality.

To manage menstruation hygienically and with dignity, it is essential that women and girls have access to water and sanitation. They need somewhere private to change sanitary cloths or pads; clean water and soap for washing their hands, bodies and reusable cloths; and facilities for safely disposing of used materials or a clean place to dry them if reusable. There is also a need for both men and women to have a greater awareness of good menstrual hygiene practices. Menstruation is a natural process, but in most parts of the world it is taboo and rarely talked about. It has also been largely neglected by the WASH sector and other sectors focusing on sexual and reproductive health, and education. As a result, the practical challenges of menstrual hygiene are made even more difficult by socio-cultural factors and millions of women and girls continue to be denied their rights to WASH, health, education, dignity and gender equity. Menstruation is a natural process; however, if not properly managed it can result in health problems. The impact of poor menstrual hygiene on the psycho-social wellbeing of women and girls (eg. stress levels, fear and embarrassment, and social exclusion during menstruation) should also be considered.

ENVIRONMENTAL HYGIENE

Historical perspectives on hygiene and environmental health

Hygiene and sanitation have a long history at various levels of human civilisation. We can roughly divide the historical events into two periods: the ancient and the modern.

Prehistoric and ancient civilisation

Religious laws, such as Moses' Law, writings in the Old and New Testaments and laws in the Koran, played major roles in the lives of ancient peoples. These laws mainly concentrated on the provision of personal hygiene. Dead bodies and contaminated surfaces were known to be unclean or unhygienic to touch. The importance of burying human faeces was also strongly indicated. The importance of body cleanliness before praying was a motive for maintaining the integrity of hygiene with a religious practice.

The importance of hygiene and sanitation flourished at the times of Greek, Roman and Egyptian civilisation. The use of private and public baths and latrines, cleaning of the body, shaving the head for protection from lice infestation, and the construction of water pipelines and sewage ditches were widely observed. The transmission of schistosomiasis (bilharzia) was linked to bathing and swimming in the Nile River. In these civilisations, the focus was on personal hygiene (hygiene) and human waste management (sanitation).

Modern times

A number of discoveries in the 19th century were important events for the understanding of communicable diseases. For example, the link between contaminated water and cholera was discovered by John Snow in 1854; the importance of hygienic handwashing before attending delivery of a baby was noted by Dr. Semmelweis in 1845; and the discovery that microorganisms (very small organisms only visible under a microscope) cause disease was made by Louis Pasteur around this time.

The period following the industrial revolution in Europe in the 19th century showed that improvements in sanitation, water supply and housing significantly reduced the occurrence of communicable diseases. The term 'environmental health' is used to describe human health in relation to environmental factors such as these. Environmental health can be defined as the control of all the factors in a person's physical environment that have, or can have, a damaging effect on their physical, mental or social wellbeing. The issue of environmental health is now a global matter under the guidance of the United Nations (UN) through the World Health Organization.

Although hygiene and infection are vital factors in environmental health, it is also good to be aware of emerging issues such as global warming and the links between medical conditions such as cardio-vascular disease and our environment and lifestyles. Our environment is everything that surrounds us. It includes all the external influences and conditions that can affect our health, life and growth. These influences are constantly changing and the effects on our health may not be easily foreseen.

Environmental health is broader than hygiene and sanitation; it encompasses hygiene, sanitation and many other aspects of the environment that are not included in this Module such as global warming, climate change, radiation, gene technology, flooding and natural disasters. It also involves studying the environmental factors that affect health.

The World Health Organization's definition is as follows:

Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health.

According to the Federal Ministry of Health, more than 80% of communicable diseases are believed to be preventable using environmental health interventions. Generally, there are two intervention models: the clinical intervention model, which looks at treating the sick person, and the public health model, including environmental health, which looks at how to stop people getting sick in the first place by providing a healthy environment

HAND HYGIENE

Effective Hand Hygiene is the single most important strategy in preventing health care associated infections. **Hand Hygiene** -Is a general term referring to any action of hand cleansing.

- Includes:
  - Washing hands with the use of a water and soap or a soap solution, either non-antimicrobial or non microbial.
  - Applying a waterless antimicrobial hand rub to the surface of the hands (e.g. alcohol-based hand rub).
- When performed correctly, hand hygiene results in a reduction of microorganisms on hands.

Hand hygiene practices have been universally poor among health care workers.

Why:

- Heavy workloads - the busier you are the less likely you are to wash your hands
- Time consuming - there just isn't enough time to wash your hands as often as you need to if using the traditional Hand Hygiene techniques
- Hands don't appear dirty - Bugs are there even if you can't see them
- Problems with skin irritation - frequent washing with soap and water removes skin lipids, and in some health care workers causes dryness, skin irritation and damaged skin
- Sinks poorly located - if it's hard to get to a sink you are less likely to use it.

Five moments for hand hygiene

The newly developed Five Moments for Hand Hygiene has emerged from the WHO Guidelines on Hand Hygiene in Health Care (Advanced Draft) to add value to any hand hygiene improvement strategy. Quite simply, it defines the key moments for hand hygiene, overcoming misleading language and complicated descriptions. It presents a unified vision and promotes a strong sense of ownership.

Not only does the Five Moments align with the evidence base concerning the spread of HAI but it is interwoven with the natural workflow of care and is designed to be easy to learn, logical and applicable in a wide range of settings.

REFERENCES

1. http://finishsociety.org/health_&_hygiene.html
2. http://www.open.edu/openlearncreate/mod/oucontent/view.php?id=189&printable=1
3. https://www.scribd.com/document/371035065/Article-on-Promoting-Hygiene-for-Healthy-Society
4. https://www.unicef.org/wash/index_hygiene.html
5. http://www.hygieneexpert.co.uk/importancegoodpersonalhygiene.html
6. *U.S. Pet Ownership & Demographics Sourcebook. Schaumburg, IL: AMVA. 2012. ISBN 978-1-882691-28-9.*
7. *^ Bloomfield, Sally F.; Aiello, Allison E.; Cookson, Barry; O'Boyle, Carol; Larson, Elaine L. (December 2007). "The effectiveness of hand hygiene procedures in reducing the risks of infections in home and community settings including hand washing and alcohol-based hand sanitizers". American Journal of Infection Control.* ***35*** *(10): S27–S64. doi:10.1016/j.ajic.2007.07.001.*
8. Baker, K.K.; Dil Farzana, F.; Ferdous, F.; Ahmed, S.; Kumar Das, S.; Faruque, A.S.G.; Nasrin, D.; Kotloff, K.L.; Nataro, J.P.; Kolappaswamy, K.; Levine, M.M. (28 April 2014).