

Good Personal Hygiene: Need to Fight against the Spread of Infectious Diseases

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Introduction

According to World Health Organization (WHO) "Health is the state of complete physical, mental, spiritual and social well-being and not merely absence of disease or infirmity". Health is a perception of positive state of well being, where there is harmony between body and mind. It has been well said that only that person can be called really healthy who has a sound mind in a sound body. Health is the state of life that allows people to live and work.¹

Hygiene is defined as conditions or practices conducive to maintaining health and preventing disease. Hygiene has been shown to reduce communicable diseases and improve social outcomes in the community. There are barriers in improving hygiene especially in countries with low socio-economic conditions. Now days, developing countries like Bangladesh continually struggling to cope with scarce resources and poor hygienic practices in the community. The common type of hygiene includes personal hygiene, food hygiene, water hygiene and hygiene during waste disposal. There are several challenges in achieving high level of hygiene which include poverty, lack of political commitment, lack of community participation, gender inequality, inadequate data, lack of inadequate coordination between stakeholders, and behavioral issues. To reduce these challenges, measures to be taken are community empowerment and involvement, equitable access to hygiene needs, strong political commitment, promoting gender equality, and enhancing young adolescents in different levels.²

This paper highlights; implications of hygiene practice, hand washing procedures, and social distancing as part of public health practices. A comprehensive multidimensional effort needed through motivation to combat present and upcoming challenges in moving up towards positive health of population at large.

Implications of hygiene practice

There are many sicknesses which can be caused by poor domestic or personal hygiene. Signs of poor domestic hygiene include: not cleaning the toilet, not getting rid of rubbish, not washing clothes and bedding frequently, and not storing food properly. Signs of poor personal hygiene include: not washing hands, not showering and not washing hair. Unimproved hygiene, inadequate sanitation,

and insufficient and unsafe drinking water account for 7% of the total disease burden and 19% of child mortality worldwide. Interventions in hygiene, sanitation, and water are highly cost-effective and capable of preventing a large part of this devastating disease burden. Progress in ensuring access to these basic services has been painfully slow in much of the developing world.³

Diseases in Indigenous communities caused by microorganisms and parasites resulting from inadequate domestic and personal hygiene are- a) Bacterial: food poisoning, gastroenteritis, diarrhoea caused by *Campylobacter*, pneumonia, skin infections; b). Viral: hepatitis A & E, gastroenteritis, colds and flu; Parasitic: giardiasis, scabies, pediculosis and helminthic infestation; c). Poor domestic and personal hygiene practices can help the transmission of disease-causing germs: Directly by the faecal-oral route, or by person to person or pet to person contact. Indirectly by vectors coming into contact with people or their food, people breathing in airborne droplets of moisture which contain microorganisms or eating contaminated food.

Bangladeshis should be prepared for the possibility of a COVID-19 outbreak in Bangladesh. The community can take measures to reduce the spread of COVID-19. Everyone has a role to play in getting ready and staying healthy. Currently a vaccine is not available for COVID-19. Until a vaccine is developed, community-based interventions such as event cancellations, social distancing, and creating awareness plans can help slow the spread of COVID-19. Individuals can practice everyday prevention measures like frequent hand washing, staying home when sick, and covering coughs and sneezes.⁴

Good hygiene is an important barrier to many infectious diseases, including the faecal-oral diseases, and it promotes better health and well-being and one of the essential parts of our daily life. Good personal hygiene remains one of the most effective ways to protect ourselves and others from illnesses. Good personal hygiene such as frequent hand washing has been one of the means helpful in curtailing the spread of the Ebola virus. Hence, proper hygiene is mandatory to ensure global health and well being.⁵ The most important way to reduce the spread of infections is hand washing - always wash regularly with soap and water. Also important is to get a vaccine for those infections and viruses that have one, when available.⁶

The term cleanliness should not be used in place of hygiene. Cleaning in many cases is removing dirt, wastes or unwanted things from the surface of objects using detergents and necessary equipment. Hygiene practice

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focuses on the prevention of diseases through the use of cleaning as one of several inputs. Hygienic practice encompasses both cleaning for the removal of physically observable matters and the use of chemical substances for the removal of microorganisms. Many people in rural areas may not understand what good or bad personal hygiene is. The prevention of communicable diseases, like diarrhoea many others is highly possible through the application of proper personal hygiene. To encourage hand washing to become part of the daily routine, suitable facilities must be located near to places such as latrines and kitchens, where they will be needed. If running water is available, the facilities should include tap and a sink as well as soap.⁷

In developing and underdeveloped countries around the world which do not have sufficient modern technology and resources to combat epidemic, education on good personal hygiene will serve a major role in minimizing the risk of outbreak of infectious diseases. How many times healthy individuals wash their hands matters. To become infected, someone needs to touch a contaminated surface or come into direct contact with a contaminated person. No matter how soon after a hand washing this contact occurs, the healthy person will again get bacteria on the hands. If the person washes their hands right away, there's a good possibility that they'll remove the bacteria.⁸

Some health measures can be undertaken only by the community as a whole; these include water source protection, proper disposal of solid waste and excreta, waste water drainage, controlling animal rearing and market hygiene. Individual community members play an important role in community hygiene, and have a responsibility to their neighbors and to the community to promote good health and a clean environment. For example, everyone in the village must keep their houses and compounds clean, because one dirty house can affect many conscientious neighbors and contribute to the spread of disease. Community leaders can promote cleanliness in the home by regularly checking on households and by using by-laws to encourage household maintenance.⁹

Ways spread of infections can be reduced or slowed down include: vaccination, washing hands frequently, staying at home during illness, use of tissue, or cough and sneeze into arm, not hand, staying away from other people, using disposable tissues, washing hands after coughing, sneezing or using tissues, do not touch eyes, nose or mouth (viruses can be transmitted from hands) and restriction in sharing cups, glasses, dishes or cutlery.¹⁰

Measures which can reduce or slow the spread of infections include: Washing hands frequently, staying at home when sick, Using a tissue, or cough and sneeze into arm, not hand. Turn away from other people, Using disposable tissues. Disposing of the tissue immediately, washing hands after coughing, sneezing or using tissues, if working with children, have them play with hard surface toys that can be easily cleaned, Not touching eyes, nose or mouth, Not sharing cups, glasses, dishes or cutlery.¹¹

Hand washing procedure

The correct hand washing procedure according to WHO, includes the following 10 (ten) modified steps:¹²

- Step one** : First wetting the hands with clean water and apply enough soap to cover the hand surfaces
- Step two** : Rub hands palm to palm
- Step three** : Rub right palm over left dorsum with interlocked fingers and vice versa
- Step four** : Rub palm to palm with fingers interlocked
- Step five** : Rub backs of fingers to opposing palms with fingers interlocked
- Step six** : Make rotational rubbing of left thumb clasped in right palm and vice versa
- Step seven** : Perform rotational rubbing, backwards and forwards with clutched fingers of right hand in left palm and vice versa
- Step eight** : Rinse hands well with clean running water or pour from jug
- Step nine** : Dry hands thoroughly with a single use towel or dry in the air to avoid recontamination
- Step ten** : Use towel or back of hand depending on design to turn off tap

Social distancing is a strategy where you try to avoid crowded places, large gatherings of people or close contact with a group of people. In these situations, viruses can easily spread from person to person. In general, a distance of one to two meters (3 to 6 feet) will slow the spread of a disease, but more distance is more effective. Should social distancing be recommended, steps to follow include: Use telephone, video conferencing, or the internet to conduct as much business as possible (including within the same building), allow employees to work from home, or to work flexible hours to avoid crowding the workplace, cancel or postpone any travel, meetings, workshops, etc. that are not absolutely necessary, drive, walk, or cycle to work, but try to avoid public transit. Alternatively, workplaces can consider allowing staff to arrive early/late so they can use public transit when it is less crowded, allow staff to eat at their desks or have staggered lunch hours to avoid crowded lunch rooms, spend as little time as possible in tearooms or photocopy centers, when meetings are necessary, have the meeting in a larger room where people can sit with more space between them (at least about one to two meters apart) and avoid shaking hands or hugging.⁶

Conclusion

Public health efforts have resulted in tremendous improvements in the health of individuals and communities. The foundation for effective public health interventions rests, in large part, on a well-trained workforce. Unfortunately there is a major shortage of public health physicians who are prepared to face today's public health challenges.

References

1. Esrey SA. Water, waste, and well-being: a multi-country study. *Am J Epidemiol* 1996;143:608-23
2. Kumwenda S. Challenges to Hygiene Improvement in Developing Countries, IntechOpen. Available from: URL: <https://www.intechopen.com/books/the-relevance-of-hygiene-to-health-in-developing-countries/challenges-to-hygiene-improvement-in-developing-countries>
3. Prüss-Üstün A, Bos R, Gore F, Bartram J. Safer water, better health: costs, benefits and sustainability of interventions to protect and promote health. World Health Organization: Geneva 2008.
4. CDC. Preventing COVID-19 Spread in Communities. Coronavirus Disease (COVID-19). Available from: URL: <https://www.cdc.gov/coronavirus/2019-ncov/community/index.html>
5. Personal and Domestic Hygiene. ENVIS Centre on Hygiene, Sanitation, Sewage Treatment Systems and Technology. available from http://www.sulabhenvi.nic.in/Database/hygiene_personalanddomestic_2078.aspx
6. Good Hygiene Practices - Reducing the Spread of Infections and Viruses. Canadian Centre for Occupational Health and safety. Available from: URL: https://www.ccohs.ca/oshanswers/diseases/good_hygiene.html
7. Hygiene and Environmental Health Module: 3. Personal Hygiene. Available from: <https://www.open.edu/openlearncreate/mod/oucontent/view.php?id=189&printable=1>
8. Odigwe O. Good personal hygiene: a fight against the spread of infectious diseases. *MOJ Public Health*. 2015; 2(2): 65. DOI: 10.15406/mojph.2015.02.00019
9. WHO. Personal, domestic and community hygiene. Available from: URL: https://www.who.int/water_sanitation_health/hygiene/settings/hvchap8.pdf
10. Good Hygiene Practices- Reducing the Spread of Infections and Viruses. Canadian Centre for Occupational Health and safety. Available from: URL: https://www.ccohs.ca/oshanswers/diseases/good_hygiene.html
11. Canadian center for occupational Health and Safety. Good Hygiene Practices - Reducing the Spread of Infections and Viruses. Available from : URL: https://www.ccohs.ca/oshanswers/diseases/good_hygiene.html
12. WHO. WHO Guidelines on Hand Hygiene in Health Care: a Summary. Available: URL:https://www.who.int/gpsc/5may/tools/who_guidelineshandhygiene_summary.