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# WE ARE IN 21<sup>ST</sup> CENTURY BUT STILL OUR HANDS ARE DIRTY- A HAND HYGIENE REVIEW FROM KHYBER PAKHTUNKHWA PAKISTAN

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#### **ABSTRACT**

Yes, we are in 21<sup>st</sup> century, but still our hands are dirty, still there is a big room for improvement in the level of awareness about importance of hand hygiene in Pakistan. A continuous concern and care about hand hygiene is the basic step towards the prevention of diseases and to avoid spread of nasty germs in the community. A careless attitude of the community concerning hand hygiene practices indulge community at a stake of transfering multiple diseases to others, because dirty hands are basic medium for transport of germs to others. Mostly germs reach to a healthy person by dirty hands and then transferred into the body through eyes, nose and mouth which results illness of a healthy person.<sup>[1]</sup>

**KEYWORDS:** 21<sup>st</sup> Century, Hand Hygiene, Community, Dirty Hands, Diseases.

#### **BACKGROUND**

There is a long list of infectious diseases which mainly spread in the community from one person to others by dirty hands only. [2] According to medical terminology hand hygiene refers to basic hygiene practices which are considered as most important medical procedures. Keeping your hands clean from bacteria, viruses, dirt, chemicals and all other type of pathogens is the basic purpose of proper handwash. Hand hygiene is more essential and basic requirement for the people who are working in health providing institutions. Hand washing before giving any type of medical care can prevent or minimize the spread of diseases. It is also an important practice for the general public specially people who handle eatables in kitchens, hotels, restaurants, or dealing with any type of food items. Infect for all of us there is a need to realize that our community suffers from so many infectious diseases and illnesses just because of collective careless attitude of society towards proper hand hygiene practice. As a developing nation still there is a need to learn that a proper hand hygiene is the utmost important step to avoid and control wide range of diseases. Still there is a need to educate our people that so many types of infections you can get from not washing your hands, such as Meningitis, Hepatitis A & B, Measles, Yellow Fever, Common Cold, Chlamydia, Legionnaires, Ebola, Gastroenteritis, Salmonellosis, Giardiasis, Campylobacteria, Pneumonia, Cold Sores, Flu, Slapped Cheek Disease, Rotavirus, Boils, Polio, Chest Infections, Small Pox, Hand Foot & Mouth Disease, Viral Haemorrhagic Fever, Glandular Fever, Streptococcal Infection, Bird Flu, Anthrax, Cough,

Chicken Pox, Eyes Trachoma, and Diarrhoea. This is not only a list of diseases, infect we can get and transmit all above mentioned disease through our dirty hands. Unhygienic conditions of hands are more dangerous and more harmful for children around the world. For children less than age 5 years diarrhea, is amongst one of top two leading causes of death, accounting for 8 percent of total deaths in the world every year. It means more than 1300 offspring die per day and in one year more than 48000 deaths just because of the spread of diarrhea in different communities due to unhygienic conditions, mainly dirty hands.[3] Moreover, children less than 5 years of age are the softest and main target of pneumonia, this highly infectious disease caused death of more than 2400 children every day which means 88000 deaths every year. Diarrhea and pneumonia both two diseases, mostly spread through dirty hands, causing for more than 1.8 million deaths every year. Only through awareness about proper hand hygiene practice we can save more than 66 percent children who suffered from diarrhea, and more than 60% children who suffered from pneumonia and other respiratory infectious diseases. [4]

#### **Awareness Regarding Hand Hygiene**

To know the real importance of hand hygiene everyone should know that how our hands get germs and how we transfer these germs to other healthy people. Still we have to learn so many things to become a civilized society, as still we have shortage of toilets in our rural areas and people go out to the fields, still animal poop is being used as fertilizer, which is the major source of most contagious germs like Salmonella, E. Coli and

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norovirus. These all unhygienic practices are the major source of the spread of bacteria, viruses, fungi, protozoa and other types of germs from hand to hand and person to person.

A continuous process of transferring germs from dirty hands to clean hands results in sickness of millions of people. After every use of toilet, after every touch to raw meat, after every touch to un washed vegetables & fruits, after every change of diaper, after every touch to any pet animal, after any touch to any contaminated object trillions of germs can get onto hands, if these dirty hands are not properly washed with soap and clean water then germs can reach to other healthy ones and many types of diseases including respiratory infections, diarrhea, hand foot and mouth infections can spread in whole community.<sup>[5]</sup>

There is lack of awareness in the public, that when they touch their face with their dirty hands unintentionally, many types of germs can get into their body. Nose, eyes and mouth are the most common ways by which germs can enter in human body and make people sick. Our dirty hands can contaminate our daily usable, like spoons, dining plates, dining tops, kitchen utensils, crockery and food items. While eating in these dirty and contaminated items whole family can get nasty diarrheal, skin and respiratory illnesses. The best way to prevent from these communicable infections is to properly wash our hands according to already defined WHO handwashing technique.

With proper handwashing we can prevent spread of many communicable infectious diseases in the community. It can reduce the spread of infections in the community by 25 to 40 percent. According to an estimate handwashing can reduce diarrheal illnesses in immune compromised patients by 58 percent. It can also reduce the spread of respiratory illnesses by 16 to 21 percent. In one of the studies it was shown that school absence due to GIT infections can be reduced by 29 to 57 percent if good hand hygiene practices are followed. Proper handwashing is a better tool to save community from many types of deadly infections. [6]

Properly clean hands are infect helping hands to deal with the rise of medication and antibiotic resistance in the community. When people stay healthier and are safe from infections, use of medication and antibiotics can be decreased, which results a reduce in antibiotic resistance. Clean hands as helping hands can save 20 percent people from possible respiratory infections and 30 percent people could be saved from diarrheal and other gastrointestinal diseases. Antibiotics frequently are given unnecessarily for all types of respiratory and GIT infectious diseases, so reducing the spread of these contagious infections with clean hands helps to reduce the overuse of antibiotics, which is one of the major causes of antibiotic resistance, world is facing now a days. [7]

#### Hand Hygiene Technique

Keeping in view the importance of hand hygiene for a healthy nation, there is a need to learn that when and how to wash hands. Hands should be washed methodically, after every use of toilet, after every change of nappies of your offspring, before and after the preparation of food, touching uncooked and cooked meat, variables or ready-to-eat foods, before and after eating, before and after attending any sick family member, after handling garbage, after cleaning, dusting or gardening, after handling pets or other animals. [8]

Even our community knows some about handwashing technique, but it always needs to be repeated because we are still lacking hand hygiene standards. Here is the standardized technique designed by World Health Organization. "Wet your hands with running clean water. Then apply soap and lather well for 20 seconds or longer if the dirt is ingrained, rub hands together rapidly across all surfaces of your hands and wrists. During every handwash never forget your wrists, backs of your hands, between your fingers and under your fingernails. Rub and wash well under running water and make sure all traces of soap are removed. Dry your hands using a clean towel or air to dry them". [9]

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## **How to Handwash?**

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

Duration of the entire procedure: 40-60 seconds



Wet hands with water;



Apply enough soap to cover all hand surfaces;



Rub hands palm to palm;



Right palm over left dorsum with interlaced fingers and vice versa;



Palm to palm with fingers interlaced



Backs of fingers to opposing palms with fingers interlocked:



Rotational rubbing of left thumb clasped in right palm and vice versa



Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



Rinse hands with water;



Dry hands thoroughly with a single use towel



Use towel to turn off faucet;



Your hands are now safe



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