

## Encapsulation of Health, Hygiene and COVID-19

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**Abstract** :- Outbreak of COVID-19 has compelled entire world to evolve new dimensions of living style. Everywhere conglomerate meetings and travelling is restricted. Common folk is bound to confine at home, accepted as an accolade of Lockdown. Always busy person has now started thinking of Individual Health in cascade with Community Health. Adapting to Hygienic approach act as catalytic booster. Health is the ability of a biological system to acquire, convert, allocate, distribute, and utilize energy sustainably. The WHO definition conceptualizes health as a human right requiring physical and social resources to achieve and maintain.

United Nations Children Fund (UNICEF) strategy for Health, stresses upon the importance of an integrated approach to early child health care and calls for improved facility for Water Sanitization Hygiene (WASH) services and practices. Health and Hygiene go hand in hand. Hygiene is the practice through which people maintain or promote good health. Making themselves and their surroundings clean, disinfecting surfaces, hands, units, surroundings and items of personal use in order to break the chain of infection, all contribute to hygiene. In general healthcare is to provide and promote quality care, focus on emerging diseases and invest in promoting and preventive healthcare. Waste management is also a necessary factor in Hygiene.

This review presents a synopsis on the current COVID-19 pandemic, with focus on preventive measures. Presently, no vaccines or specific treatment is available for COVID-19, in light of the aforementioned; prevention is the only substantial and less expensive option. With the envisaged explosive community transmission of COVID-19, it is recommended amongst many that social distancing which includes avoiding any form of contact with people and basic hygienic practices like thorough washing of hands with clean water and antiseptic soap for the duration of at least twenty – thirty seconds should be practiced always. An alcohol-based hand gel can also be used. Furthermore, health care workers should adhere strictly to the

standard preventive measures in areas of heightened COVID-19 pandemic. Use of face mask and sanitizer should be mandatorily accepted. Guidelines issued by WHO on Health & Hygiene must be strictly implemented to protect from killer SARS-Cov-2 (Severe Acute Respiratory Syndrome) disease.

**Keywords** :- Health, Hygiene, Virus, Pandemic, Vaccination, Infection, Outbreak, Transmission, Respiratory droplets, Contagious, Sanitizer, Social Distancing, Quarantine, Influenza, Coronavirus, Waste management, Mucosa.

**Abbreviations** :- WHO, WASH, COVID-19, SARS-COV-2, UNICEF, ECD, NHS, IFH, SARS, MERS, MATISS.

**Introduction** :- Recall well known phrase 'Health is Wealth'. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of creed, race, religion and Political belief, social, psychological and economical condition. Health is a resource to support an individual's responsibilities in society rather than an end in itself. A healthful lifestyle provides the means to lead a full life with meaning and purpose. Public health is trying to stop a disease that is unhealthy to the community. This is fixed by organized efforts and choices of society, public and private clubs, communities and individuals. It is about the health of many people, or everybody. Till date no medical cure and vaccine is available to neutralize impact of SARS-CoV-2 on living beings.

Analysis suggest that Hygiene is largely seen as synonymous with cleanliness. The terms 'Cleaning' and 'Hygiene' are often used interchangeably causing confusion about what Hygiene really means. Hygiene is the practices we adopt in our homes and everyday lives to protect ourselves and our community from infectious diseases. Good hygiene is crucial to good overall Health and wellness because it helps lower the risk for disease, illness and medical conditions caused by the impacts of poor hygiene. IFH (International Scientific Forum on Home Hygiene) is the international platform for developing hygienic practices. Targeted **Hygiene means** focusing our Hygiene practices in places at times when harmful microbes are most likely to be spreading in order to break the chain of infection.

Partial lockdown still prevails in most of the countries including India. It is well known now that coronavirus pave it's way to human body through mucosa tract. In such a scenario people are cautiously confined to stay at home and work from home to avoid coronavirus reception. Educational sector is also facing transforms. Traditional Offline classrooms have been replaced by online home classrooms. Homes are now converted in virtual self quarantine centers. Present review cum analysis provides a ready reckoner for Health and Hygiene tips to combat against COVID-19. Salient features of relevant WHO guidelines are reproduced for in hand knowledge about Health and Hygiene in tandem against SARS-CoV-2. Description is an attempt to encapsulate Health, Hygiene and COVID-19 into single envelope in order to make the concept easily understandable.

**Health** :- WHO defines health as 'a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'. This is consistent with the biopsychosocial model of health, which considers physiological, psychological and social factors in health and illness and interactions between these factors. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of creed, race, religion and political belief, social, psychological or economical condition. The health of all peoples is fundamental to achieve peace and security. The opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people. The WHO definition conceptualizes health as a human right requiring physical and social resources to achieve and maintain. WHO further clarified, resource for everyday life is not the only objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities. This means that Health is a resource to support an individual's responsibilities in society rather than an end in itself. A healthful lifestyle provides the means to lead a full life with meaning and purpose. 'Wellbeing' refers to a positive rather than neutral state, framing health as a positive aspiration. This definition describes health as 'a resource for everyday life, not the object of living'. From this perspective health is a means to living well highlighting the link between health and participation in society.

Good Health besides sturdy Immunity are the essential personnel ingredients to fight against COVID-19. Regular exercise, balanced nutritious diet and adequate rest, all contribute to good health. Physical well-being involves pursuing a

healthful lifestyle to decrease the risk of disease. Maintaining physical fitness, for example, can protect and develop the endurance of a person's breathing and heart function, muscular strength, flexibility and body composition. Good physical health can work in tandem with mental health to improve a person's overall quality of life. Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures.

UNICEF's Strategy for Health, stresses the importance of an integrated approach to early child health care, nutrition, education, Early Childhood Development (ECD), HIV, child protection, WASH services and calls for improved community-level health literacy and community-level support to WASH services and practices.

**Hygiene** :- Hygiene is a series of practices performed to preserve Health. According to WHO, "Hygiene refers to conditions and practices that help to maintain health and prevent the spread of diseases". Hygiene is a concept related to cleanliness, health and medicine. It is also related to personal and professional care practices. Good hygiene is crucial to good overall health and wellness because it helps lower the risk for disease, illness and medical conditions caused by the effects of poor hygiene. In medicine and everyday life settings, hygiene practices are employed as preventive measures to reduce the incidence and spreading of disease. Hygiene is the practice through which people maintain or promote good health. Making themselves and their surroundings clean, disinfecting surfaces, hands, units, surroundings and items of personal use in order to break the chain of infection, all contribute to hygiene. Hygiene and health both go hand in hand. Other hygiene measures are for instance keeping a certain distance from ill people. It is the practices we adopt in our homes and everyday lives to protect ourselves and our community from infectious diseases. Targeted hygiene means not only identifying time and places which represents a health but it also means applying a suitable hygiene procedure to break the chain of infection. The objective of a hygienic cleaning procedure is to reduce contamination to a level which is not harmful to health.

**CO-Relation Between Health And hygiene** :- Health is the ability of a biological system to acquire, convert, allocate, distribute, and utilize energy sustainably. Hygiene is a set of practices performed to preserve health. Many people equate hygiene with 'cleanliness', but hygiene is a broader 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. A person cannot be said to be healthy merely by a disease free condition. He/she should be physically as well as mentally healthy. This demands a hygienic condition. Health and Hygiene are two correlated terms. With the kind of health risks posed to human race today, both terms are inclusively supplementary combination.

**Health, Hygiene and Covid-19** :- Infectious disease COVID-19 continues to exert a heavy burden on Health and prosperity. Past epidemiology recorded majority of deaths in the under- developed/developing world; infectious disease caused around 4% of deaths in developed countries and is a significant cause of morbidity. Social, demographic and other changes are indicating towards increased role of Hygiene in home and everyday life. Agencies worldwide recognize that, for threats such as new influenza strains, Severe Acute Respiratory Syndrome (SARS), Middle East Respiratory Syndrome (MERS) and Ebola, Hygiene is a first line of defence during the early critical period prior to mass curative measures such as vaccination become available. We need to practice Hygiene during food handling, using the toilet, coughing, sneezing, nose blowing, caring for domestic animals, handling or where a family member is infectious and is shedding infectious microbes into the environment. Disposing of refuse and waste management techniques needs implementation. Public awareness regarding concept of breaking the chain of infection by targeting the links in the chain is key to make informed decisions and practice effective targeted Hygiene rather than merely observing Health and Hygiene as a set of rules.

There is much to learn about SARS-CoV-2 that causes COVID-19. Based on what is currently known about COVID-19, spread from person-to-person of this virus happens most frequently among close contacts (within 6 feet). There are two main routes of transmission of COVID-19; respiratory and contact. Any person who is in close contact with someone who has respiratory symptoms (e.g., sneezing, coughing, etc.) is at risk of being exposed to potentially infective respiratory droplets. Recent studies indicate that people who are infected but do not have symptoms likely also play a role in the spread of COVID-19. Current evidence suggests that SARS-CoV-2 may remain viable for hours to days on surfaces made from a variety of materials. Cleaning of visibly dirty surfaces followed by disinfection is a best practice measure

for prevention of COVID-19 and other viral respiratory illnesses in households and community settings.

**Essential facts about Covid-19 for Hygiene programming :-**

- Covid-19 is a new disease and evidence is evolving. The virus is thought to spread mainly from person to person through respiratory droplets and contact with these droplets on surfaces.
- Respiratory droplets are generated when an infected person coughs or sneezes.
- Droplets may also land on surfaces where the virus could remain viable and thus the immediate environment of an infected individual can serve as a source of transmission (contact transmission).
- The rapid spread of the disease and the ensuing temporary overload of the National Health System (NHS) demands for effective measures to slow the spread of the disease.
- Many countries are responding to the spread of Covid-19 by limiting or recommending limiting mobility across and within communities. Planning for limiting human-to-human contact will need to be an essential part of the response to the Covid-19 outbreak.

Safely managed WASH services are an essential part of preventing and protecting human health during infectious disease outbreaks, including the current COVID-19 pandemic. Good and consistently applied WASH and waste management practices, in communities, homes, schools, marketplaces and health care facilities will further help to prevent human-to-human transmission of COVID-19. With an incubation period of between two-fourteen days, signs and symptoms of infection are mild to high respiratory illness; characterized with cough, breathing problems (shortness of breath), high temperature (Fever), tiredness (Fatigue) and nausea. Presently, no vaccines or specific treatment is available for COVID-19, in light of the aforementioned; prevention is the only substantial and less expensive option.

While efforts continue to contain the spread of the novel coronavirus on Earth, a space-based experiment called MATISS (Microbial Aerosol Tethering on Innovative Surfaces in the international Space Station) has been investigating how ‘smart surfaces’ on the International Space Station could stop pathogens in their

tracks. The experiment examines the performance of five advanced materials in preventing illness-causing microorganisms from settling and growing in microgravity.

**Conclusion :-** Health is a positive concept emphasizing social and personal resources, as well as physical capacities. Health is a resource to support an individual's function in society, rather than an end in itself. In medicine and everyday life settings, Hygiene practices are employed as preventive measures to reduce the incidence and spreading of SARS-CoV-2 disease. There is much to learn about the novel coronavirus. This virus is likely to be with us for many months or years to come.

Development of effective Corona drug, medicine, vaccine and MATISS are in primitive stage. So adapting aforementioned Health and Hygiene practices are suggested as good long-term strategy for keeping our community Safe & Healthy against COVID-19 amidst presence of other deadly viruses in our vicinity.

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