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Low Conservation Approach against Modifiable Risk Factors Stands To Be the Biggest Challenge Confronted by Pakistan Healthcare Sector

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Abstract: Health status of the Pakistan population is growing aggravated. Incorporation of insalubrious regimen characterize by sedentary lifestyle, unhealthy intakes embracing tobacco products, soft drinks, junk food, mark as internal risk factors, accompanying the external exposures to air pollution, water contamination, ultra-violet radiation, garbage splaying characterizing insalubrious milieu, some of the sufficient cause for degenerative health status of population. Low conservation approach against these modifiable risk factors impel to frequent illnesses encounters which in absence of appropriate care mounting to serious conditions increase bombardment for secondary and tertiary care resulting high morbidity and mortality rate among masses. Article intends to highlight the frequent exposure to internal and external modifiable risk factors leading towards the escalated trends in incidence and prevalence of various acute and chronic diseases. Also embraces certain interventions likely to subdue insalubrious perils, trigger healthy regimen and signal positive outcomes in health status of the population. Article is based on literature review, formulated considering fact and figures, excerpted mostly of secondary sources. PubMed, DOIA browsed frequently to sieve most relevant content. Whole compilation phase has last for approximately 3 month dated June to August 2017.

Keywords: Insalubrious life style, external and internal modifiable risk factors, deteriorated health status.

INTRODUCTION

Health status of the Pakistan population is growing aggravated. Incorporation of insalubrious regimen characterize by sedentary lifestyle, unhealthy intakes embracing tobacco products, soft drinks, junk food, mark as internal risk factors, accompanying the external exposures to air pollution, water contamination, garbage splaying characterizing insalubrious milieu, some of the sufficient cause for degenerative health status of population [1].

Low conservation approach against these modifiable risk factors impel to frequent illnesses encounters which in absence of appropriate care mounting to serious conditions increase bombardment for secondary and tertiary care resulting high morbidity and mortality rate among masses.

This evoke for a question why people are so reluctant about their health, so much committed to unhealthy life style and readily jeopardizes their life by preferring fleeting joys over beneficial compromises. This need to be address, time to make people realize how important it is to lead salubrious life incorporating both mental and physical fitness necessary for progress, performance, productivity, prosperity.

The article intends to highlight the frequent exposure to internal and external modifiable risk factors leading towards the escalated trends in incidence and prevalence of various acute and chronic diseases. Also embraces certain interventions likely to subdue insalubrious perils, trigger healthy regimen and signal positive outcomes in health status of the population.

METHODOLOGY

The article based on literature review, formulated considering fact and figures, excerpted mostly of secondary sources. Preference given to studies embracing Pakistan health profile under the umbrella of consider external and internal modifiable risk factors. PubMed, Directory of Open Access Article, browsed frequently to sieve most relevant content. Whole compilation phase has last for approximately 3 month dated June to August 2017.

DISCUSSION

Portraying current health care scenario, the era of diseases with proliferating trends widely associated with hedonistic, sedentary, insalubrious life style amplifies with the external factors active in the environment. Beginning with some interesting facts and figures revealing the burden of various diseases most responsible for high morbidity and mortality rate in Pakistan.

BURDEN OF DISEASES

Existing trends reveal that every day 480 people while every month 14,000 people are likely to develop eye disorders [2], more than half of the population confronts periodontal disease and recurrent ENT infections. ENT is the second most running OPD's constituting of 47% sufferance of ear diseases, 36% nasal and 17% laryngopharyngeal issues [3]. Pertussis considerably active responsible for 5,550 mortalities annually [4].

Prevalence of deafness 7.4% of all disability [5], mental sufferance 34% [6], and 2,786 annual mortalities of skin diseases [4], 10 to 15 sufferance among every 100 individuals in Sindh [7].

Congenital anomalies (14.01), low birth weight (31.96), birth trauma (21.59) some crucial causes for infant mortality rate [4]. Annually 4,664 individuals die of measles, 6,144 of tetanus and 63,728 diarrhoeal diseases [4].

Estimated prevalence rate for gastro esophageal reflux disease 22.2% to 24.0% [8], myocardial infarction 4.4 %, heart attack 6.2%, 8.2% in females and 4.5% in males, stroke 2.6% ,3.5% in females and 1.8% in males [9]. 40 million people suffers from osteopenia, 9.9 million people are patient of osteoporosis, figure likely to rise to 11.3% by 2020 and 12.9% by 2050 [10].

Pakistan stands to be the 7th diabetic nation with 6.9 million diabetic patients with continuous acclivity, figures anticipated to rise to 11.5 million by 2025 in absence of appropriate interventions [11]. 9th most obese country with 30 million people lifting the burden of obesity [12] and 12 million people confronts hypertension with prevalence rate of 34% in males and 24% in females [13].

Globally ranked 7th in bearing the burden of lung disease and 14th for kidney disease leading to 61,586 and 29,576 mortalities respectively [4]. Every year 50,000 individual report organ failure of which 15,000 cases are of renal failure [14].

Pakistan exist among three nations exhibiting the traces of polio, sixth top nation bearing the burden of tuberculosis [6] and is second home to encephalitis. [4] Burden of neurological disease accounts for 4-5% [15] and incidence of 300,000 cases of cancer annually [16]. Aggravated trends in the incidence of Oral Cancer (8.7 per 100,000 population) [4] High suffering of breast cancer with every 1 of 8th women leading to 40,000 deaths annually [17]. Approximately 3.37 and 2.36, estimated death rate for Hepatitis B and HIV/AIDS, respectively [4].

Coronary heart diseases (9.87%), influenza, pneumonia (9.26%) and stroke (7.50%) are the main leading contributors among all death causation [4]. Reported disability 2.49% [5], Infertility rate 8% [18], death rate 6.8% [19], while Healthy life expectancy found to be 57.8 only [4].

Thus country exhibits trace of almost all type of diseases, every another individual exhibit some health issue, every another individual dies of some health sufferings.

EXTERNAL MODIFIABLE RISK FACTORS

Existence of external modifiable risk factor, including air pollution, water contamination, garbage splaying, noise pollution, UV exposure exert adverse effects on health status of the population [1].

Air pollution is currently the most significant environmental risk to human health. Excess defecation of carbon monoxide, lead, ozone, nitrogen dioxide, sulfur dioxide, particulate as a result of domestic, locomotive, industrial activities, considerably contaminate air quality [20]. Globally 7 million mortalities attribute to ambience peril [21]. Cardiac diseases (70–80 %), respiratory diseases (15–25 %) and lung cancer (5–6 %) results of adulterated air inhalation enduring high particulate matter (PM) concentration [22].

Annually PM2.5 long-term exposures beyond 10 μg/m3, the air quality standard dictated by The World Health Organization (WHO), account for 3.15 million premature mortalities globally while 105 thousand observed in Pakistan [22]. Based on air pollution perceptions index Pakistan is 15th most polluted country in the world [19] incorporating 3 most polluted cities including Lahore, Peshawar and Quetta [23], with health-damaging particulate matters concentration four to five times above recommended levels [19]affecting more than 35 % of citizens in urban areas and causing incidence of 5 million lower respiratory issues among the children under 5 ,8 thousand of chronic bronchitis, and 80 thousand hospital admissions and $ 500 million health outlays annually [24, 25]. In absence of appropriate measures, incessant growth PM2.5 concentrations in some region of Punjab likely to rise above 150 μg/m3 by 2030, causing 5-8 yrs. reduction in life expectancy [26]. According to a study by complying to US PM2.5 (12 μg/m3) air quality standard premature mortality can be reduce by 36 % in Pakistan [22].

Globally 5 million mortalities are occurred due to water-borne diseases Annually water-borne pathogens responsible for 80% of illnesses in developing countries. In Pakistan 85% of Punjab and 95% of Sindh populace relies on water sources bacteriologically contaminated, consider inappropriate for human consumption, level of adulteration quite above, WHO limit 10 ppb [27]. Approximately 60% of the diseases prevalence and 20 to 40% hospitalizations in the country are due to adulterated water consumption [23]. Incidence of diarrhea, dysentery, typhoid, malaria, cholera, and hepatitis, mostly owed to contaminated water consumption accountable for 33%, one third of all mortalities [27]. Annually diarrhea the frequently occurring outcome, causation for 250,000 mortalities of children under five, 1.6 million DALYs while 900,000 DALYs due to typhoid. Water-borne diseases likely to trigger episode of patient care as often as monthly, quarterly, semiannually and accounts for health outlay of PRs. 114 billion in total [27].

In Pakistan, 20 million tons of solid waste with growing rate of 2.4 % is generated annually, urban population accounts for 8,000 tons and rural population 26,370 tonnes of wastes on daily basis. 12.5 million tonnes of domestic waste generated annually in Pakistan [28]. Hospital and industries generates infected waste requisite of special handling procedures. Annually 5 million deaths occurred due garbage splaying in the vicinity and inappropriate disposition of waste [27].

Continual exposure to noise pollution leads to considerable hearing loss and causation for several disorders. Human ears sensitive to 70db of sound, is intolerant to slight noise of 85db [29]. Estimated noise pollution in major cities of Pakistan including Karachi, Lahore, Rawalpindi, Peshawar, Quetta, ranges between 90 to 100 dB [29] 42 % of individuals are exposed to noise pollution for 10-12 hrs. / day and 62 % exposed 7 days / week [30]. Beyond its effects on auditory system its abuses ranges from serious damages to the organs including brain, heart, kidneys, liver to malfunctioning in ophthalmic, digestive, respiratory, cardiovascular, and neurological systems [31]. It is the most common cause of insomnia (86.9%) , stress(63.4%) , fatigue (61.4%) , indigestion(60.5%) , divergence(55.1%), inefficiency(52.3%) and headage (38.6%) for the residents [32].

In Pakistan high risk factors are associated with prolong UV exposure with UV index ranges between 7 to +11 [33, 34] accelerating high incidence of acute and chronic issues of eye, skin, and immune system.

INTERNAL MODIFIABLE RISK FACTORS

Incorporated industrial tends reflects peoples' predilection steering towards deteriorated health status. People spend extravagantly on food, clothing, housing, technology, accessories, and ceremonies but parsimoniously on health.

Tobacco considered hazardous to health to both active and passive users all over the world. In South East Asia 32% of tobacco is consumed by Pakistan .22 million individuals are likely to be smokers (20% of females and 54% of males) while 55% of household include at least one active user [35]. Smoking major cause of augmented striking of cardiovascular diseases, 90% of 7 million sufferance of chronic obstructive pulmonary disease, 300,000 incidence of cancers and 100,000 mortalities annually among Pakistan populace [9, 16, 36].

Pakistan the 2nd heaviest consumer of smokeless tobacco products, constitute of considerable proportion in Baluchistan (50.0%), NWFP (46.0), Punjab (34.7), Sindh (34.3), high consumption estimated among male (21.3%) than female (19.3%) [37]. Betel nuts incorporate 20-40% consumption in Southeast Asia including Pakistan, India and Nepal. 40% of Karachi population constitutes of heavy consumers of betel nuts. Consumptions are significant contributors of benign to some malignant diseases including asthma, hypertension, diabetes, periodontitis, cancer (oral, esophageal, lungs) and cardiovascular diseases [38].

Beverages business with major emphasis on soft drinks are flourishing in Pakistan, enjoying incessant growth in market. According to survey 46% of males and 40% of females are regular customers of carbonated drinks [39]. Similarly, fast food industry emerges to be rapidly growing business with 21% annual growth and 169 million customers' stands to be 2nd largest industry in Pakistan and 8th largest lucrative market globally [40].

Physical inactivity accounts for 3.2 million mortalities annually and is the 4th most significant contributor to global mortality [41]. Accruing boom in automobile industry with an increased from 0.8 million to four million vehicles purchase over the last two decades, more than 400% increase characterizes sedentariness [25]. Approximately 60.1% of physical inactivity exhibited by Pakistan populace, 69.8% in females and 52.1% in males [41].

Thus traces of excess reliance on insalubrious regimen considerably actuated among the urban populace, irrespective of age, gender or education level. Adolescents excessively involve in consumption of junk food (20.7%), soft drink (35.9%), tobacco products (6.0%) and physical inactivity (37.7%) [42]. Adult general patients found to exhibit intakes of unctuous food (26%), soft drinks (64%) Tobacco, (17%), betel nuts (20%) [43]. Similar traces observe among medical students excessively involve in consumption of junk food (97%), soft drink (72.4%), tobacco products

(7.0%) and physical inactivity (30%) [44]. Level of awareness among the patient suffering of acute condition is found to be 42%,92% aware of outcome accruing of unctuous food consumption,83% smoking and 25% physical inactivity [45].

Incorporation of salubrious regimen reduces susceptibility to 40% of cancer and 80% of cardiac diseases. Heavy smoking, spicy, unctuous food consumptions, soft-drinks intake, physical inactivity has led to continuous acclivity in incidence and prevalence of acute and chronic diseases including diabetes, obesity, hypertension, gastro esophageal reflux diseases, osteoporosis, kidneys malfunctioning, psychological disorders, respiratory diseases, cardiovascular diseases, cancers [8, 9, 10].

These trends in industrial sector manifest populace predilection towards different color of spectrum. Their daily diet intakes incorporating unctuous, insalubrious food, chemical composed products, artificial extract, carbonated beverages, random rapid rapacious eating habits, sedentary life style, disarray work schedule.

All these findings evoke for questions, Are these intakes, reliance's, habits commensurate with the nourishment and nutrition requisite of human body? Among all these market does health care market enjoys the similar share? Do people possess similar concerns towards their health? Do they address health issues as often and prudently?

Low conservation approach among the masses stands to be the biggest challenge confronted by Pakistan health care sector. Low awareness and concerns for health, associate difficulties in exercising healthy regimens and lifestyle, holding believe that life is destined and mortal, excess reliance on self-medications, cost bearing expenses the perception of quality product and services symptom led demand for healthcare services, trigger by need not by want ,people not in habit of practicing preventive care rather directly bumping for secondary and tertiary care , some of the facet reflects exhibited low conservation approach among populace .

On the other hand, health care sector accompanies 160,289 doctors, 12,544 dentists, 82,119 nurses and 101,173 hospital beds along with 1,207 hospitals, 5,382 dispensaries, 5,404 basic health units, 696 maternity and child health centers and numerous of non-government organization. The population and health facilities ratio worked out 1,127 people per doctors, 14,406 people per dentist and 1,786 people per hospital bed. 2.5% of GDP is allocated in health sector, allocating 22% in development and 78% current expenditure [46].

Existence of health insurance policy, non-government organization and government hospital assisting people in acquisition of health care services, these organizations considerably effective in their respective areas but have not attain measurable outcomes yet.

Disparity in provision of quality care between public and private sector, concentration and coinciding roles and responsibilities, inefficacy in deployment of resources, lack of interventions addressing public unhealthy lifestyle, inadequate approach against environmental risk factor are some of the limitation of healthcare system in Pakistan.

ENDORSED PRIMORDIAL & PRIMARY APPROACH AGAINST MODIFIABLE RISK FACTORS

Inconsideration with current scenario certain initiatives are embraced intends to endorse exuberant living and ushered healthy lifestyle by pacifying internal and external modifiable risk factor.

Need to educate masses significance of conservation approach, abandoning insalubrious regimen, employing healthy life style, and living disease free life. Need to upgrade people living standards, scheduling work activities embracing work up with sunrise and work off with sunset. Rushing at day hours and resting at night time rather than working haphazardly or exhaustively 24/7.Need to enforce policy prohibiting or limiting use of tobacco products, soft drinks, unctuous food in social gathering, educational institution, work organizations and public places.

Government should increase outlay on health at least to meet the primary health need of the population. Government incompliance with non-government organization should initiate mandatory health screening program on regular basis after every 3 - 4 yrs. Throughout the country with reasonable charges for affordable class and free of cost for underprivileged masses. Health screening program should facilitate assessment including clinical, laboratory and radiology test enabling early diagnosis and appropriate interventions. Reinforcing health screening program increase probability of curability at initial stages of disease thus hampering the upward slope leading to serious conditions and lessen the expenditure on secondary and tertiary care.

Country embellished with all type of seasonal grains and weather conditions favors the availability of crops, fruits and vegetables throughout year. Augmenting vegetation to regulate optimum supply of natural products, enough to serve each and every individual across the country and encourage salubrious intakes. Also need for conducting national campaign

endorsing plantation/ forestation enabling oxygen enriched pollutant free environment.

Ameliorate the existing public transport facilities, ensuring availability, accessibility and affordability. Taking such initiative encourages more individual to deploy such means more often in routine life and only occasionally relies on personal facilities. Such measures likely to enables comfortable and timely reach, reduce traffic flows, overcome air pollution, and reduce noise nuisance.

Developing walking network or pathways all around the country encourages more reliance on physical-motion than auto-motion. Encourage activities endorsing individuals' physical and mental growth and development such as sports. Need to promote and draw attention to all type of sports at regional, national and international level with equal opportunity regardless of age and gender differences. Efforts should be exerted in organizing events /tournaments incorporating indoor and outdoor games, providing platform to talented individuals to come forward, nations to come together, building solidarity among the world.

CONCLUSION

Life is precious gift of God but often taken for granted. Every day no of individuals fight against their diseases to extent their stay in this world, struggle to abate the effect of their disabilities hampering their living quality, departs of this world bearing the burden of diseases. Why we are so ungrateful and likely to jeopardize our life by being addicted to unhealthy means and measures?

Existing trend in Pakistan health profile evoke for improving people's intakes, habits and provide opportunities for growth and development likely to assure mentally and physically fit robust individuals. Happy healthy life is right of each and every individual and responsibilities of all the higher concerned authorities, interventions should be encouraged, assuring quality living to all.

CONTRIBUTION

Ms. Hira Maqsood (Researcher & Author)
Mr. Mirza Kashif Baig (Supervisor)

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