Scholars Journal of Applied Medical Sciences
Abbreviated Key Title: Sch J App Med Sci
ISSN 2347-954X (Print) | ISSN 2320-6691 (Online)
Journal homepage: https://saspublishers.com/sjams/

OPEN ACCESS

Biochemistry

Perception and Behaviour Related to Non Communicable Diseases among Dhaka City Dwellers: A Qualitative Study

Colonel Md Rezaur Rahman[1*], Lieutenant Colonel Md Abdul Wahab[2], Lieutenant Colonel Md Fakhrul Alam[3], Dr. Israt Jahan[4]

[1]MPH, Assistant Director of Medical Services, 9 Infantry Division, Savar Cantonment, Bangladesh
[2]MD (Biochemistry), Associate Professor, Armed Forces Medical College, Dhaka, Bangladesh
[3]BSP, MPH, Commanding Officer, 11 Field Ambulance, Savar Cantonment, Bangladesh
[4]MPH (Epid), Medical Officer, Savar Upazilla Health Complex, Savar, Bangladesh

DOI: 10.36347/sjams.2020.v08i07.028 | **Received:** 16.07.2020 | **Accepted:** 24.07.2020 | **Published:** 28.07.2020

***Corresponding author:** Colonel Md Rezaur Rahman

Abstract **Original Research Article**

Bangladesh's growing burden of Non-Communicable Diseases (NCDs) is attributable to increasing urbanization and coinciding behavioral shifts together with a dietary shift. This study aims to examine the views and expectations of respondents in an urban slum population of Dhaka on NCDs and dietary improvements. A general understanding of the conduct related to NCDs among residents in the slum community has been employed with qualitative methods. Three men and three women, from diverse cultures, performed core informant interviews to emphasize on problems that were found in the interviews. Four major themes emerged: i) financial hardship influencing health ii) urbanized dietary habits iii) tobacco and sweetened tea as foundations of daily existence iv) A health-conscious action using local tools. One significant result was that the respondents viewed deprivation as one of the main triggers of NCDs, along with general economic development. A remarkable finding was that the poor were perceived to be one of the main causes by NCDs even with general economic improvement. This study explains how urban slum residents in Dhaka viewed their everyday activities in relation to NCD's and diet as shifting from rural to urbanized lifestyles. Our study has found that expectations and attitudes of NCDs are negative as well as encouragetive, and may lead to the optimal implementation of NCD preventive and health promotion services.

Keywords: Epidemics, socio-economic, sweetened tea, urbanization.

INTRODUCTION

Over the ages, the major causes of death worldwide were communicable diseases. Uncontrolled epidemics often restricted life expectancy. Following the Second World War, non-communicable diseases (NCDs) started to trigger significant problems for medical science in developed countries of vaccines, antibiotics and development in living standards [1]. NCDs have been a significant focus of the low- and middle-income countries on public health consisting of cardiac disorders, obesity, diabetes and chronic respiratory disorders [2]. Throughout 1990, influenza, diarrheal disorders, and perinatal disorders were the primary sources of disease burden. By 2020 the global disease incidence of NCDs is expected to reach 80%, causing 7 of 10 deaths in developed countries in contrast to less than half today [3, 4]. They need successful (preventive) approaches and immediate action to monitor risk factors such as cigarettes, alcohol, obesity, the food pressure of the blood and inactivities should be implemented. If not, developed nations would not be willing to afford quality health treatment to their population.

The expensive and long-term treatment of NCDs raises the equity issue between and within countries. As the WHO General Manager expressed in his annual report [3]. NCDs accounted for 38 million (68%) of the world's 56 million deaths in 2012, 28 million in low and middle income nations, including [4]. Another priority, in addition to the conventional issues for public health, was the Dhaka Statement on environmental safety in economic growth, adopted by the 2015 International Conference on public safety, in Dhaka [5]. The pressure of NCDs in South Asia's lower-middle-income nation Bangladesh is rising and presents a public health problem [6]. A total of 522,300 deaths in 2012 were attributed to NCDs, accounting for almost half of the country's overall mortality [4]. The upward trajectory of NCDs can be traced to various factors like economic growth, behavioral shifts,

followed by a dietary transformation driven by rapid urbanization [7, 8].

Bangladesh has seen impressive economic growth over the last decade, with improved life expectancy and per capita food intake. Nevertheless the actual amount of people residing below the poverty line (USD 1.90 per person a day) was around 28 million, from 56.7 millions in 1991/92 to 31.5% in 2010,11) [9]. Strong urbanization has happened concurrently, with an average annual population growth rate of 3.8% between 1990 and 2015, contributing to the urbanization of 34% of the Bangladeshi population in 2015. In the 2015 capital city, Dhaka's total population was 17.6 million. As the hub of the rapidly growing economy in Bangladesh, Dhaka attracts a large influx of rural migrant workers looking for better employment and 48 percent of all Dhaka slum dwellers [10].

Unplanned growth of Dhaka did not respond to the huge pressures of immigrants. It is projected that one-third of the population of Dhaka City Corporation resides in slopes with inadequate social facilities, including shelter, clean drinking water, health and sanitation. The fragile, thinly resourced and decentralized health sector, in particular, cannot meet urban public health needs. In the past, NCDs were deemed related to higher socioeconomic class, but now are recognized by both social and economic classes as significant public health risks. Moreover, people living in poor or marginalized communities in most countries with low socio-economic status are more likely to die from NCD than from more affluent groups. A research on the increase in the mortality rate of chronic diseases in rural Bangladesh shows that the highest mortality rate of chronic diseases among the poorest economic groups was identified. Though studies on NCDs have been conducted in other parts of the world among urban dwellers, those studies are restricted in Bangladesh. The focus has been on epidemiological trends, among the few NCD studies conducted in Bangladesh [7].

METHODOLOGY

Study Design: Qualitative approaches have been used to research the attitudes and behavior of NCDs among inhabitants of the slum communities in Dhaka and obtain a general understanding. The research was part of a wider NCD report on urban poor in Dhaka. The population profile and the epidemiological profile of NCD risk factors were further based throughout the research [11].

Study Location: This study was take place on a poor community in Dhaka, which was initially established by the government as a settlement for the underprivileged in 1972. Due to frequent migration of the population among poor communities, we conducted a complete count household survey in 2014, and established that a total of 8,604 households with a population of 34,170 (17,041 men and 17,129 women) resided in the community [12].

Data Collection and Analysis: Qualitative data was by digitally audio record. This data was collected in the presence field data collector. Some KII data was collected from group discussion. After coding and decoding we are analyzed in merged way.

Demographic Information of respondents:

Occupation	Sex	Age	Education	Monthly Income	No of Family Members
House wife	Female	21	Class 5	None	4
Rickshaw Puller	Male	58	No Formal Education	9000	6
Garments Worker	Female	35	High School	11000	3
House Servant	Female	43	Class 3	8500	5
Day labor	Male	47	No Formal Education	7000	2
Street Food Hawker	Male	27	Primary School	12000	4

RESULT

Four main themes emerged in the rapidly urbanizing slum community regarding the experiences and perceptions of respondents with respect to NCDs:

- Urbanized lifestyle affecting diet
- Tobacco and sweetened tea as cornerstones of social life
- Financial hardship influencing health
- Health-seeking behavior utilizing local resources.

Urbanized Lifestyle Affecting Diet

In participants' daily lives there were profoundly ingrained unique unhealthy nutritional practices, especially excessive salt and sugar intake. The respondents have traditionally added extra salt while eating curry (a common daily meal consisting of rice and curry). Sweets were another recorded bad behavior, which was hard to alter. A rapid urbanization of behaviors often influenced environments such as unnecessary use of salt, intake of unhealthy products and sufficient quantities of sugar (for tea and sweets). Respondent replied that, *"Yes, usually I use extra salt in my curry and if when it (salt) is not up to the mark I take more extra salt*." (Yong women, 21 years old) Again, another person replied that, *"I used to don't take any kind of extra salt, sugar, oil in my food because I know it from my diabetes book."* (Men with 58 years)

Outside foods: Food sold by road salesmen and market stalls has been deemed unsafe and often

dangerous. The respondents said that old oil was used repeatedly and harmful to their health at food stalls. At the same time, the participants said street food, despite its busy urban lives, is easy and inexpensive. In and around the outskirts of Dhaka, many clothing factories were located. When more people operate in these industries, it became easy to get food from the street for their families. Participants said that people spend less time cooking nowadays and instead rely on ready-made food, which they still feel is 'unhealthy' for them.

At this issue one respondent replies that, *"I don't buy ready-made or hotel food from the street. Because it contains excessive oil and it also higher price, which that much money I have."* (Replied by women with 43 years old)

Another person replied that, *"I usually take food from the street. When I am busy with my work and sometimes I go far from my house that moment I have eat from street."* (Replied by men with 47 years old.)

In terms of buying fresh fruits and vegetables, all the respondent said that, they won't buy fresh fruit because of their financial hardship. But they try to take fresh vegetables sometimes but not frequently.

Tobacco and Sweetened Tea as Cornerstones of Social Life

The community has played an important role in socializing with friends and neighbors. People gathered with friends and neighbors in tea stalls to drink tea and cigarettes to light. Men's smoking was encouraged publicly as a sign of manhood. Women did not smoke and sometimes chewed tobacco without smoking. At meetings where the elderly was present, chewing tobacco was also deemed important. Welcome visitors to the home with tea, soft drinks, candy and snacks symbolizes Bangladeshi society's hospitality. Large levels of powdered milk or sugar have also been sweetened in tea.

One of our respondent said that, *"It was mandatory to take cigarette with sweetened tea in their break time. Without tea and cigarette, I cannot get energy to do work."* (Replied by young man with 27 years).

Financial Hardship Influencing Health

Financial hardship is one of the major reason for lack of take healthy food. While the economic conditions in the urban slum society is typical of the background of the research, respondents suggested that their lives have improved generally. In the urban slum now more wealthy homes could afford meals three times a day, unlike previous generations. In addition to three key courses, some respondents might also deliver snacks. This rise in food quantity does not automatically imply an increased dietary standard. Most participants were aware that a healthy diet was required for their wellbeing, but claimed that because of financial limitations, they could not afford such a diet. The explanation for not getting a healthy diet was generally listed "Poverty."

"We don't always think we're healthy because of poverty. It does not matter what we consume, we need food to live" (Replied by women with 35 years old)

The respondents generally cited the various factors of NCDs, such as excessive consumption, a lack of equilibrium in diet and lack of physical exercise. Stress induced by economic problems was also expected to trigger NCDs. Stress is another parameter to developed NCDs among the people.

Regarding stress related question respondent said that, *"Out of stress, I think mostly. How can we properly raise our children, how can we afford their studies? For their survival, poor people are under stress. Both these stresses will lead to hypertension."* (Replied by Men with 58 years old.)

Health-Seeking Behavior Utilizing Local Resources

All over the community, pharmacies have been found. While pharmacy shopkeepers were usually laymen without medical or pharmaceutical training, locally they were called "doctors." A individual may go to a pharmacy and get 20–30 takas without waiting time to get blood pressure and blood sugar. Take advice to patients on NCD management or prevention, both informal (unqualified) pharmacy "doctors" and skilled physicians in NGO-run and in private clinics throughout the city.

One of female respondent said that, she used to go pharmacy for taking advice and buying medicine. The basic reason is they want to save money rather than go specialized physician.

Perception about Non-Communicable Disease

Most the respondent had general knowledge about diabetes, heart and kidney problem. In severe case they are going to nearest government hospitals. More than 50% of people believed that doing regular physical activity or walk it easy to control diabetes and heart disease. Some of people were not concern about these diseases because they are struggled with their daily life.

DISCUSSION

This study described the perception in relation to NCD by urban slum residents of Dhaka as their day-to-day practice. Despite general economic developments, the respondents mentioned poverty as one of the main reasons why healthy and balanced diets are not maintained. Furthermore, one of the main vulnerability and aggravating factors in NCDs has been tension induced by economic hardship. Answers also

claimed they were liable for their unbalanced diet for their increasingly urbanizing lifestyle. Consuming greater amounts of food, performing fewer job and travel are some of the trends that have been pointed to as a quick urbanization [13]. There were a large number of food choices from street suppliers, food stands and fast food restaurants presented to the participants. Nevertheless, as indicated by literature and verified by the interviewees, most such items are rich in dietary energy and deep fried. The respondents in the group reported increased intake of commercially processed products rich in fat, salt and sugar, in line with a global pattern to decrease nutritional quality in many urban environments [14].

Female participants indicated that food from such places was more convenient and cheaper than at home. Many reports have listed specific time constraints for the preparation of nutritious food for working people.

Notably, certain foods have been recorded to have been eaten by urban respondents in these days, less than their equivalents in the villages or by older generations. Participants were conscious of the relatively healthful value of fruits and vegetables, but secretly bought them for the fear of contamination from the widely used food-preservative formalin [15].

The inadequate intake of fruit and vegetables in the context of urbanization has been discussed and literature has presented contradictory arguments. In Bangladesh, too, low consumption of fruit and vegetables was recorded. The results of various studies on globalization and the changing food system are consistent.

In this study the prospect of urban life was identified which could reduce the risk of NCDs. Contrary to the idea that metropolitan its live a sedentary existence, citizens exercise as a kind of sport.

On the basis of the findings of our research, collective health promotion and preventive NCD practices are encouraging directions in which the growing burden of NCDs can be reduced. Many elevated risks such as salt ingestion are attributed in part to a lack of knowledge of and effects of hypertension. Although the respondents and healthcare professionals were fully conscious of the advantages of physical activity, they slowly modified their lifestyle by reducing dietary energy and salt consumption. It should be planned with a constructive variance strategy to a comprehensive health promotion program. There are both men and woman members in all age classes at the study location. Such citizens should be educated by their group participants as mutual support promoters.

Many pharmacies are owned by local lay people, and they are an important means of overcoming the lack of access for the people of Bangladesh for health services in the formal sector [16]. Not only give medication to ill patients, they also test people for fair cost for their weight, blood pressure and blood sugar. Such citizens may be useful local partners and give them training in health care and prompt research.

There are other drawbacks to this report. The main weakness of the research is that the analysis hasn't identified particular illnesses or signs.

CONCLUSION

This research describes how Dhaka's urban residents have interpreted their own everyday activities in accordance with NCDs, witnessing a change from their conventional to modern life styles. There have been both adverse and beneficial variables for the management of NCD that will optimally lead to the creation of potential NCD preventive and health promotion patient awareness programs. In particular, the current exercise trend can be promoted more systematically. This measure could mean that women in a traditional society are breaking through in combating the growing risks to NCDs and promoting health more widely.

REFERENCES

1. Boutayeb A, Boutayeb S. The burden of non communicable diseases in developing countries. International journal for equity in health. 2005 Dec 1;4(1):2-8.
2. Murray CJ, Vos T, Lozano R, Naghavi M, Flaxman AD, Michaud C, Ezzati M, Shibuya K, Salomon JA, Abdalla S, Aboyans V. Disability-adjusted life years (DALYs) for 291 diseases and injuries in 21 regions, 1990–2010: a systematic analysis for the Global Burden of Disease Study 2010. The lancet. 2012 Dec 15;380(9859):2197-223.
3. WHO. The World health report: Today's challenges, WHO, Geneva, 2003.
4. World Health Organization. Global status report on noncommunicable diseases 2014, WHO, Geneva. 2014.
5. Thomas YF, Boufford JI, Talukder SH. Focusing on health to advance sustainable urban transitions. Journal of Urban Health. 2016 Feb 1;93(1):1-5.
6. World Bank. World development indicators 2016,World Bank, Washington, DC, 2016.
7. Rawal LB, Biswas T, Khandker NN, Saha SR, Bidat Chowdhury MM, Khan AN, Chowdhury EH, Renzaho A. Non-communicable disease (NCD) risk factors and diabetes among adults living in slum areas of Dhaka, Bangladesh. PLoS One. 2017 Oct 3;12(10):e0184967.
8. Bishwajit G. Nutrition transition in South Asia: the emergence of non-communicable chronic diseases. F1000Research. 2015;24(4):1-20.

9. World Bank. The World Bank. Bangladesh: Overview. World Bank, 13 April 2020. Available: https://www.worldbank.org/en/country/bangladesh/overview. [Accessed 11 May 2020].
10. Bangladesh Bureau of Statistics (BBS). Census of slum areas and floating population 2014. 2015, BBS, Bangladesh Bureau of Statistics (BBS), Dhaka, 2014-2015.
11. Khalequzzaman M, Chiang C, Choudhury SR, Yatsuya H, Al-Mamun MA, Al-Shoaibi AA, Hirakawa Y, Hoque BA, Islam SS, Matsuyama A, Iso H. Prevalence of non-communicable disease risk factors among poor shantytown residents in Dhaka, Bangladesh: a community-based cross-sectional survey. BMJ open. 2017 Nov 1;7(11):e014710.
12. Khalequzzaman M, Chiang C, Hoque BA, Choudhury SR, Nizam S, Yatsuya H, Matsuyama A, Hirakawa Y, Islam SS, Iso H, Aoyama A. Population profile and residential environment of an urban poor community in Dhaka, Bangladesh. Environmental health and preventive medicine. 2017 Dec 1;22(1):1-8.
13. Farahmand M, Amiri P, Tehrani FR, Momenan AA, Mirmiran P, Azizi F. What are the main barriers to healthy eating among families? A qualitative exploration of perceptions and experiences of Tehranian men. Appetite. 2015 Jun 1;89:291-7.
14. Tripathy JP, Thakur JS, Jeet G, Chawla S, Jain S, Prasad R. Urban rural differences in diet, physical activity and obesity in India: are we witnessing the great Indian equalisation? Results from a cross-sectional STEPS survey. BMC Public Health. 2016 Dec 1;16(1):816.
15. Anam T. A Rotten Mango Crisis. The New York Times, 5 July 2014. [Online]. Available: https://www.nytimes.com/2014/07/03/opinion/tahmima-anam-bangladeshs-rotten-mango-crisis.html?_r=0. [Accessed 11 May 2020].
16. Adams AM, Islam R, Ahmed T. Who serves the urban poor? A geospatial and descriptive analysis of health services in slum settlements in Dhaka, Bangladesh. Health policy and planning. 2015 Mar 1;30(suppl_1):i32-45.
17. WHO. Diet, Nutrition and the prevention of Chronic Diseases, WHO, Geneva, 2003.