Abstract

Currently, coronavirus COVID-19 has affected 210 countries around the world, killed more than 146,000 and infected more than 2.1 million, according to worldometer, April 17, 2020. Home-care is especially important in these situations because hospitals are not seemingly safe during pandemic outbreaks. Also, the chance to get out of the home during the lockdown period is limited. Telemedicine and telehealth technologies are especially effective during epidemic outbreaks, when health authorities recommend implementing social distance systems. Telephone-based measures improve efficiency by linking appropriate information and feedback. In addition to increasing access to healthcare, telemedicine is a fruitful and proactive way to provide a variety of benefits to patients seeking healthcare; diagnose and monitor critical and chronic health conditions; improve healthcare quality and reduce costs.

Abbreviations: IEDCR-Institute of Epidemiology, Disease Control and Research

Introduction
Bangladesh’s health care services are becoming unusually concentrated in a small fraction of costly critical health-demanding patients. A large part of these complex-patients suffers from multiple chronic diseases and are spending a lot of money. Tele-pharmacy includes patient counselling, medication review and prescription review by a qualified pharmacist for the patients who are located at a far distance from the pharmacy. The most common way to use telemedicine is a responsive model, primarily physician-led with virtual visits stimulated by alerts using interactive services, which facilitates real-time interaction between the patient and provider [1]. It delivers resilience to services and enables pharmacists to work remotely, reducing the need for long journeys and increasing job satisfaction [2]. The rise of pharmacists in epidemic situations has become increasingly popular in developed countries such as the United States, Australia, Canada and the United Kingdom. According to information from recent published articles in several ongoing journals, books, newsletters, magazines, etc., the duties, authority and responsibilities of pharmacists are completely different from doctors and nurses, although there are some similarities. Along with doctors, pharmacists can serve as frontline healthcare workers during epidemics. The profession is developed and highly praised in both developed and underdeveloped countries. Millions of professional pharmacists worldwide work in various organizations, and according to data from the International Pharmaceutical Federation (FIP), nearly 75% of them work in patient care [3]. Even in the United States, the continued lacking of primary health providers and medical specialists has made it possible for pharmacists to care for ambulatory patients with chronic diseases in a variety of treatment services [4,5] Figure 1.

Present Socio-Economic and Healthcare Situation

Bangladesh is the seventh most populous country in the world and population of the country is expected to be nearly double by 2050 [6], where communicable diseases are a major cause of death and disability [7]. A recent Dengue outbreak in 2019, more than 100,000 people was affected in more than 50 districts in Bangladesh in the first 6 months of 2019 [8, 9]. According to World Bank’s Country Environmental Analysis (CEA) 2018 report, air pollution lead to deaths of 46,000 people in yearly in Bangladesh [10]. Although a riverine country, 65% of the population in Bangladesh do not have access to clean water [11]. Both surface water and groundwater sources are contaminated with different contaminants like toxic trace metals, coliforms as well as other organic and inorganic pollutants [5]. Studies in capital Dhaka and Khulna also found that about 80% of fecal sludge from on-site pit latrines is not safely managed [12]. Nearly half of all slum dwellers of the country live in Dhaka division [13] and 35% of Dhaka’s population are thought to live in slums [14]. A recent research demonstrates widespread poor hygiene and food-handling practices in restaurants and among food vendors [15]. Less than 10% hospitals of this country follow the Medical Waste Management Policies [16]. In 2017, 26 incidents of disease outbreak were investigated by National Rapid Response Team (NRRT) of IEDCR [17]. Economic development and academic flourishing do not represent development in health sector. Out of the pocket treatment cost raised nearly 70% in the last decade [18]. Although, officially 80% of population has access to affordable essential drugs, there is plenty of evidence of a scarcity of essential drugs in government healthcare facilities [19]. Surprisingly, the country’s pharmaceutical sector is flourishing, exports grew by more than 7% in last 8 months although total export earnings of the country drop to nearly 5% [20]. It has been found in Bangladesh that more than 80% of the population seeks care from untrained or poorly trained village doctors and drug shop retailers [21]. According to WHO, the current doctor-patient ratio in Bangladesh is only 5.26 to 10,000 that places the country at second position from the bottom, among the South Asian countries [22]. According to World Bank data, Bangladesh has 8 hospital beds for every 10,000 people; by way of comparison, the US has 29 while China has 42 [23]. Tobacco is responsible for 1 in 5 deaths in Bangladesh, according to the WHO, kills more than 161,000 people on average every year. Around 85% population of age group 25-65 never checks for diabetes [24, 25].

Pharmacy Education in Bangladesh

Pharmacy Education in many developing countries, including Bangladesh, is still limited to didactic learning that produce theoretically ‘skilled’ professionals with degrees. Pharmacy curriculum in Bangladesh do not satisfy the minimal requirement for appropriate education in clinical, hospital and community pharmacy, since they are still linked to an old model of pharmacy activity e.g. based on chemistry and basic sciences. That is present curriculum produces Pharmacist only to work in the pharmaceutical industry and jobs in this field of work is going to be saturated. No university so far have modified their curriculum including topics as epidemiology, pharmaco-economics, clinical medicines, community skills. Manpower development for community pharmacies in Bangladesh is not systematically regulated and constitute an important public health issue. Three levels of pharmacy education are currently offered in Bangladesh leading to either a university degree, a diploma or a certificate. Graduates with degrees work in industry while those with diplomas work in hospitals [26]. Pharmacy is taught in about 100 public and private universities in Bangladesh and about 8000 pharmacy students graduate every year [27]. Hospital, community and clinical pharmacy in Bangladesh have not been well developed due to lack of government policy [28]. In real conditions of Bangladesh pharmacy practice areas for graduate pharmacist is limited in industry i.e., industrial pharmacy practices, in the marketing or regulatory sections. The educational system of pharmacy is one of the major reasons for bounded pharmacy practices because the courses included in bachelor degree principally emphasize on industrial practices [29]. Over 90% of B. Pharm curriculum emphasizes on product-oriented knowledge whereas only around 5% of the total course credits are allocated toward clinical pharmacy. This curricular framework indicates a minimum emphasis on patient care education [30]. However, the graduates who pass out do not get employment easily due to their poor training, lack of in-depth knowledge of fundamental concepts and practical skills [17]. Consequently, skilled graduates leave for overseas where they find more prosperous jobs. Researchers argued that Pharmacy Education can be able to contribute for both

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Public and private benefits if a realistic pattern is ensured on its operation [31]. This system could be more beneficial to the public if the good hospital and community practices are introduced properly and also by involving the pharmacy professionals e.g. pharmacists and other skilled health care providers.

Present State of Pandemic Situation Handling by Bangladeshi Hospitals

More than half of the 88 coronavirus cases detected in Bangladesh have been reported in the capital Dhaka [32,33]. The virus hit a total of 11 out of the 64 districts in the country until 05.04.2020 after the first known cases were reported around a month ago, according to the government’s disease control agency IEDCR [34]. Amidst this global crisis, Bangladesh has been identified as one of the 25 most vulnerable countries to be affected by the fast-spreading virus. By 16.04. 2020, it was confirmed in 43 districts [35]. Many patients with fever, cold and breathing problems—which are also COVID-19 symptoms—have gone untreated as the hospitals in Dhaka are sending them to the IEDCR for coronavirus test [36].

Many doctors are not providing services fearing the contagion and lab technicians are shunning workplaces halting medical tests, according to the patients. In some cases, serious patients who are not affected by COVID-19, moved from one hospital to the other but could not receive treatment and finally died, the media reported. In another case, the doctor fled leaving the patient behind [37-40]. Doctors and other healthcare workers say they do not have adequate personal protective equipment and the health system cannot cope with the outbreak [41]. Police have locked down a total 52 areas of Dhaka after Covid-19 positive patients were found in the localities [42]. Experts say elderly people infected with coronavirus need ICU support the most. The number of older persons in the country is over 0.8 million [43]. The country’s entire public health system has less than 450 ICU beds, only 110 of which are outside the capital Dhaka [23]. The economic shutdown sparked by COVID-19 threatens millions of livelihoods in the country imminently. Law enforcers have been struggling to enforce shutdown and keeping people confined to their homes but people often ignored their request and instructions [44].

Under Utilization of Hospital Pharmacy

The pharmacy profession is still lagging behind in developing countries as compared with developed countries in a way that the pharmacy professionals have never been considered as a part of health care team neither by the community nor by the health care providers. Although hospital pharmacists are recognized for its importance as health care provider in many developed countries, in most developing countries it is still underutilized or underestimated [45-48]. Hospital pharmacy practice is just started in some private modern hospitals in Bangladesh which is inaccessible for the majority of peoples due to high patients cost of these hospitals [49]. People are totally unknown to the responsibilities of hospital pharmacist, even they don’t seek for recruit for hospital pharmacist in any hospital except a few aristocrat hospitals [50]. A survey in Dhaka reported that 48% of respondents with symptoms of acute respiratory illness (ARI) identified local pharmacies as their first point of care. Licenses are provided to drug sellers by the Directorate General of Drug Administration when they have completed a grade C pharmacy degree (i.e. 3 months course) to legally dispense drugs [51] but a grade A pharmacy degree holder, having a B. Pharm or Pharm. D degree should be more equipped to handle these situations, if trained properly. Knowledge and helpfulness of pharmacist were identified as two major determinants that could not only satisfy and but also promote willingness to pay for the service [52]. They can individualize the medications and their dosing according to the needs of the patient, which can minimize the cost of care for the medication. In Bangladesh, however, graduate pharmacists do not engage directly in-patient care. Here, pharmacies in hospitals are primarily run by non-clinically educated, diploma pharmacists [28]. If the hospital pharmacy is established, patient care, proper dispensing of medications, and other patient-oriented issues can be handled properly. By maintaining a hospital pharmacy quality control program, the health sector can be enriched.

Prospect of Pharmacists in Patient Management Service and Telehealth Care

Pharmacists are the third largest healthcare professional group in the world after physicians and nurses [53]. At present, Hospital Pharmacy has created enormous job opportunities, where graduate pharmacists play a vital role in patient rearing, rehabilitation and wellness. A professional pharmacist or a pharmacy apprentice at a clinic, hospital and community care can determine what to do in a given disease situation, if guided properly by another medical personnel [54-56]. The country has a huge opportunity to recruit these pharmacists at Telehealth Care. In each call, a pharmacist can provide both appropriate and quality information from the most recent medical systems. Studies show that the lack of proper medication management leads to higher healthcare costs, longer hospital stays, morbidity and mortality. Further, it was reported that one in every five hospitalizations was related to post-discharge complications and about seventy percent were related to proper use of the drug. In 2017, the World Health Organization committed to minimizing serious, avoidable drug-related harm over the next 5 years. Pharmacists’ interventions to prevent drug-related problems at three community hospitals in California saved approximately 0.8 million USD in a year [57]. The estimated annual cost of medication error-based illnesses and deaths worldwide was USD 500 billion due to non-compliance with the clinical intervention and quantities in 2016. Also, the authors estimate that more than 275,000 people die every year for the same reasons [58]. A pharmacist can use simple and non-medical terminology to set the goal for patients to understand the information as well as to fulfill the prescription by proper request. With chronic conditions such as cardiovascular and respiratory diseases, there is ample evidence of the effectiveness of the tele-pharmacist for remote monitoring, communication and consultation [59]. In addition, psychotherapy can also be operated through telehealth as part of behavioral health [60]. The pharmacy-related needs of pandemic patients have similarities with the traditional patient population, but with different emphasis [61]. For example, when providing consulting services to patients, instead of...
focusing on medications as usual, their queries relate primarily to the knowledge of medical prevention and basic details on COVID-19, such as mask selection and standard COVID-19 signs and symptoms, symptomatic treatment options, breathing difficulties or cough management in comorbid situations, reinforcing behaviors that limit the spread of the pandemic, including social distancing and remaining in the home whenever possible through phone calls/video conferencing [62,63]. Earlier, Student pharmacists served as an effective education resource for patients regarding the H1N1 pandemic [64].

Conclusion

Overburdened by patient loads and the explosion of new drugs, physicians turned to pharmacists more and more for drug information, especially within institutional settings. They obtain medical and medication history, check medication errors including prescription, dispensing and administration errors, identify drug interactions, monitor ADR, suggest individualization of dosage regimen, provide patient counseling, etc. [65]. Among chronic disease patients, particularly those under quarantine, there is a greater challenge in the supply of drugs and compliance with medications, although the safety and effectiveness of care is still critical for these patients. Stronger data on the effectiveness of this area of pharmacy care, together with a critical assessment of its limitations, can raise awareness among the actors involved about its potential and could contribute to a wider dissemination of tele-pharmacy services in public interest [66]. At the end, it can be said that pharmacists can play a role in both medical aids and regulation. Similarly, in tele-healthcare, the professional pharmacist can play an essential role that has not been recognized yet due to lack of proper initiatives. We hope that policy makers of Bangladesh are aware of its potential and contribute to the wider promotion of tele-pharmacy services in the interest of the citizenry.

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Conflict of Interest

No conflict of interest.

References

1. Kane Gill SL, Niznik JD, Kellum JA. (2017) Use of Telemedicine to Enhance Pharmacist Services in the Nursing Facility. Consult Pharm 32(2): 93-98.
2. Pike H (2018) Web therapy: how pharmacists are leading the way on telehealth. The Pharmaceutical Journal.
3. Bates I, John C, Bruno A, Fu P, Aliabadi S (2016) An analysis of the global pharmacy workforce capacity. Hum Resour Health 14(1): 61.
4. Goode J, Owen J, Page A, Gatewood S (2019) Community-Based Pharmacy Practice Innovation and the Role of the Community-Based Pharmacist Practitioner in the United States. Pharmacy (Basel) 7(6): 106.
5. Hasan MK, Shahriar A, Jim KU (2019) Water pollution in Bangladesh and its impact on public health. Helijon 5(8): e02145.
6. Saha S, Hossain MT (2017) Evaluation of medicines dispensing pattern of private pharmacies in Rajshahi, Bangladesh. BMC Health Serv Res 17(1): 136.
7. Muhammad F, Chowdhury M, Arifuzzaman M, Chowdhury AA (2017) Public Health Problems in Bangladesh: Issues and challenges. South East Asia Journal of Public Health 6(2): 11-16.
8. Dayaram S, Pokharel S (2019) Bangladesh hit by worst dengue outbreak on record. CNNhealth.
9. Mohiuddin AK (2019) Dengue Epidemic Situation in Bangladesh. Journal of Clinical Case Studies 4(3).
10. Mohiuddin AK (2019) Chemical Contaminants and Pollutants in the Measurable Life of Dhaka City. European Journal of Sustainable Development Research 3(2): e00083.
11. BBS/UNICEF (2018) Bangladesh MICS 2012-2013 Water Quality Thematic Report.
12. Amin N, Rahman M, Raj S (2019) Quantitative assessment of fecal contamination in multiple environmental sample types in urban communities in Dhaka, Bangladesh using SaniPath microbial approach. PLoS One 14(12): e0221193.
13. Al Shaqibbi AAA, Matsuyama A, Khaquezzaman M (2019) Perceptions and behavior related to noncommunicable diseases among slum dwellers in a rapidly urbanizing city, Dhaka, Bangladesh: a qualitative study. Nagoya J Med Sci 80(4): 559-569.
14. Van der Heijden J, Gray N, Stringer B (2019) ‘Working to stay healthy’, health-seeking behaviour in Bangladesh’s urban slums: a qualitative study. BMC Public Health 19(1): 600.
15. Nizame FA, Alam MU, Masud AA, Shob AK, Opel A, et al. (2019) Hygiene in Restaurants and among Street Food Vendors in Bangladesh. Am J Trop Med Hyg 101(3): 566-575.
16. AK Mohiuddin (2018) Medical Waste: A Nobody’s Responsibility After Disposal. Int J Environ Sci Nat Res 15(2): 555908.
17. Mohiuddin A (2019) An A-Z Pharmaceutical Industry: Bangladesh Perspective. Asian Journal of Research in Pharmaceutical Science 9(1): 17-28.
18. Mohiuddin AK (2019) Pharmaco-economics: Essential but merely practiced in Bangladesh. Academy Journal of Scientific Research 7(3): 182-187.
19. Husain M, Rahman M, Alamgrza A, Uzzaman MS, Flora MS (2019) Disease Surveillance System of Bangladesh: Combating Public Health Emergencies. Online J Public Health Inform 11(1): e334.
20. Online Report. (2020) Export earnings drop to $26.24b in eight months. The Financial Express.
21. Ahmed SM, Naher N, Hossain T, Rawal LB (2017) Exploring the status of retail private drug shops in Bangladesh and action points for developing an accredited drug shop model: a facility based cross-sectional study. J Pharm Policy Pract 10: 21.
22. Mohiuddin AK (2020) Patient satisfaction with healthcare services: Bangladesh perspective. International Journal of Public Health Science (IJPHS) 9(1): 34-45.
23. Saleh A (2020) In Bangladesh, COVID-19 threatens to cause a humanitarian crisis. World economic Forum.
24. Mohiuddin AK (2019) TRACK (by NEHFP) Implementation: A Bangladesh Scenario. Pharmacovigilance and Pharmacoepidemiology 2(1): 28-36.
25. Mohiuddin AK (2019) Diabetes Fact: Bangladesh Perspective. International Journal of Diabetes Research 2(1): 14-20.
26. Alam G, Shahjaman M, Al Amin A, Azam M (2014) State of Pharmacy Education in Bangladesh. Tropical Journal of Pharmaceutical Research 12(6): 1106.
27. Mazid MA, Rashid MA (2011) Pharmacy Education and Career Opportunities for Pharmacists in Bangladesh. Bangladesh Pharmaceutical Journal 14(1): 1-9.

28. Saha T, Bhuinya RH, Masum ZU, Islam MR, Chowdhury JA (2018) Hospital Pharmacy Management System and Future Development Approaches in Bangladeshi Hospital. Bangladesh Pharmaceutical Journal 20(2): 180-187.

29. Jakaria M (2015) Pharmacy practices in Bangladesh. The Independent/ Stethoscope.

30. Islam MA, Gunaseelan S, Khan SA, Khatun F, Talukder R (2014) Current challenges in pharmacy education in Bangladesh: A roadmap for the future. Currents in Pharmacy Teaching and Learning 6(5):730-735.

31. Alam GM, Al-Amin AQ (2014) Role of Pharmacy Education in National Development of Bangladesh: A Scope for Public and Private Sectors. Indian Journal of Pharmaceutical Education and Research 48(4): 11-21.

32. The Financial Express (2020) COVID-19 patients found in 11 districts, more than half of them in Dhaka city: National.

33. Rabbi AR (2020) IEDCR: Most Covid-19 cases in last 24hrs from Dhaka. Dhaka Tribune.

34. Senior Correspondent (2020) Coronavirus cases detected in 11 districts, more than half of them in Dhaka.

35. The Financial Express (2020) Entire Bangladesh is at risk: Health Directorate.

36. Masum O (2020) Dhaka hospitals turning away patients with fever, cold needing coronavirus tests.

37. Staff Correspondent (2020) Health minister vows to punish private hospitals for turning away patients.

38. Islam Z, Mollah S (2020) Admission to Hospitals: Patients left in quandary.

39. Akhter F (2020) COVID-19 and healthcare denial. NEWAGE REPORT.

40. UNB (2020) DU student ‘denied treatment by hospitals’ dies. The Financial Express/National.

41. Chowdhury T (2020) Poor Bangladeshis being turned away from hospitals. Al Jazeera America News/Bangladesh.

42. Tribune Report (2020) Police lock down 52 areas in Dhaka. Dhaka Tribune.

43. Tajmim T (2020) Bangladesh has only 29 ICU beds to fight coronavirus! The Business standard.

44. Mahmud I (2020) Bangladesh police struggle enforcing pandemic shutdown. NEWSWORLD Bangladesh.

45. Azhar S, Hassani MA, Ibrahim MI, Ahmad M, Masood I, et al. (2009) The role of pharmacists in developing countries: the current scenario in Pakistan. Hum Resour Health 7: 54.

46. Sakeena MHF, Bennett AA, McLean Al (2018) Enhancing pharmacists’ role in developing countries to overcome the challenge of antimicrobial resistance: a narrative review. Antimicrob Resist Infect Control 7: 63.

47. Sakeena MHF, Bennett AA, McLean Al (2019) The Need to Strengthen the Role of the Pharmacist in Sri Lanka: Perspectives. Pharmacy (Basel) 7(2): 54.

48. Rayes IK, Hassani MA, Abdul kareem AR (2015) The role of pharmacists in developing countries: The current scenario in the United Arab Emirates. Saudi Pharm J 23(5): 470-474.

49. Paul TR, Rahman MA, Biswas M, Rashid M, Islam MAU (2015) Practice of Hospital Pharmacy in Bangladesh: Current Perspective. Bangladesh Pharmaceutical Journal; 17(2):187-192.

50. The Pharmaceutical Journal (2009) Development of Hospital Pharmacy in Bangladesh. News & analysis.

51. Chowdhury F, Sturm Ramirez K, Mamun AA, et al. (2017) Factors driving customers to seek health care from pharmacies for acute respiratory illness and treatment recommendations from drug sellers in Dhaka city, Bangladesh. Patient Prefer Adhere 11: 479-486.

52. Al Shayan DM, Naqvi AA, Islam MA, et al. (2020) Patient Satisfaction and Their Willingness to Pay for a Pharmacist Counseling Session in Hospital and Community Pharmacies in Saudi Healthcare Settings. Front Pharmacol 11: 138.

53. Khan AN, Khan MU, Shoaib MH, Yousof RR, Mir SA (2014) Practice nurses and pharmacists: a perspective on the expectation and experience of nurses for future collaboration. Oman Med J 29(4): 271-275.

54. Jorgenson D, Dalton D, Farrell B, Tsuyuki RT, Dolovich L (2013) Guidelines for pharmacists integrating into primary care teams. Can Pharm J (Ott) 146(6): 342-352.

55. Safitrih L, Perwitasari DA, Ndoen N, Dandan KL (2019) Health Workers’ Perceptions and Expectations of the Role of the Pharmacist in Emergency Units: A Qualitative Study in Kupang, Indonesia. Pharmacy (Basel) 7(1): 31.

56. Chevalier R, Neville HL, Thompson K, Podwell L, MaNeil M (2016) Health Care Professionals’ Opinions and Expectations of Clinical Pharmacy Services on a Surgical Ward. Can J Hosp Pharm 69(6): 439-448.

57. Schneider PJ (2013) Evaluating the impact of telepharmacy. Am J Health Syst Pharm 70(23): 2130-2135.

58. Watanabe JH, McInnis T, Hirsch JD (2018) Cost of Prescription Drug-Related Morbidity and Mortality. Ann Pharmacother 52(9): 829-837.

59. Littauer SL, Dixon DL, Mishra VK, Sisson EM, Salgado TM (2017) Pharmacists providing care in the outpatient setting through telemedicine models: a narrative review. Pharm Pract (Granada) 15(4): 1134.

60. Langarizadeh M, Tabatabaei MS, Tavakol K, Naghipour M, Rostami A, et al. (2017) Telemental Health Care, an Effective Alternative to Conventional Mental Care: a Systematic Review. Acta Inform Med 25(4): 240-246.

61. Zheng SQ, Yang L, Zhou PX, LiHB, Liu F, Zhao RS (2020) Recommendations and guidance for providing pharmaceutical care services during COVID-19 pandemic: A China perspective. Res Social Adm Pharm.

62. Caricio RR Jr, Jeppjian J, Thomas CB (2020) Community pharmacists and communication in the time of COVID-19: Applying the health belief model [published online ahead of print, 2020 Mar 26]. Res Social Adm Pharm.

63. Cadogan CA, Hughes CM. On the frontline against COVID-19: Community pharmacists’ contribution during a public health crisis. Res Soc Adm Pharm. 7411(20): 30292-30298.

64. Miller S, Patel N, Vadala T, Abrams J, Cerulli J (2012) Defining the pharmacist role in the pandemic outbreak of novel H1N1 influenza. J Am Pharm Assoc (2003) 52(6): 763-767.

65. Mohiuddin AK (2019) Clinical Pharmacists in Chronic Care. Global Journal of Medical Research pp. 1-60.

66. Baldoni S, Amente F, Ricci G (2019) Telepharmacy Services: Present Status and Future Perspectives: A Review Medicina (Kaunas) 55(7): 327.