



Significance of Pharmacist's Role in Keeping the People Healthy in Pandemic Situations

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ABSTRACT

As the lockdown situation progressed in COVID-19 pandemic, national pharmacy role players became major front line workers for maintaining accessibility of health care utilities. Pharmacists have been handling in-house deliveries of essentials, reducing burden on health care, along with attending patients with other ailments. Since pharmacists are representatives directly associated with public health concerns, there is need for disseminating awareness in pharmacists to maintain the health conditions of the people living in the pandemic situation. Pharmacy Colleges and representatives of public health interests were subjected to systematic literature review regarding publicly reported pharmacist positions. It is concluded that respondents having much experience are intended to perceive a pharmacist's position as being essential to health care providers relative to the individuals who have less experience. The findings of this research can be beneficial for educating pharmacists in order to achieve the goal of keeping the people healthy in the pandemic situations.

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1. INTRODUCTION

The planet has undergone many serious outbreaks with various intensities like cholera, ebola, American summer flu, Spanish flu etc. [1]. Currently we are dealing with COVID-19 a potentially more harmful viral endemic. Formerly identified as the 2019 novel Coronavirus (COVID-19), this extreme respiratory infection syndrome coronavirus 2 (SARS-CoV-2) is a single-stranded RNA beta-coronavirus whose genomes encodes are protein complexes, non-structural proteins and accessory proteins [2]. It has now affected 2.98 million individuals worldwide and deceased 55,794 individuals by 22 August, 2020 and the number of casualties is rising exponentially [3]. Furthermore, only 2.2 million people have recovered, which constitutes 27.67 per cent of the estimated population impacted. Attributes of the infectious population have already been released. Research explaining the latest treatment mechanism and COVID-19 infection medications were chosen to perform this report, including some editorial and letter to the editor, which primarily proposed certain medications focused on the treatment cycle of recent infectious viruses such as measles, ebola, extreme acute respiratory syndrome (SARS) and respiratory syndrome of the Middle East (MERS) [4]. Whereas, reports that replicate papers, full documents, that are not accessible, research reviews and that do not include adequate detail or guidance about their endorsement of their suggested medications or treatment procedures have been omitted. Nonetheless, several papers that are still in the news have also been chosen for this review to fulfil the purpose of this research.

Pharmacists are trustworthy and open health care providers who represent individuals and cultures in diverse areas and clinical environments throughout the United States. Typically, there are over 292,000 pharmacists in America and that figure is rising with almost 66,000 student pharmacists participating in 140 pharmaceutical institutions around the nation [5]. America has over 360,000 existing or soon to be certified pharmacists able to serve the demands of different patients and communities [6]. Over several years the pharmacist's position as an important part of the public health care team has been well known. Recently, the American Public Health Association issued its official statement on the pharmacist's position in public safety.

American Health-care Service has subsequently released a study to the American Surgeon General on the positions of pharmacists in strengthening the out-coming consumer and clinical care environment. The Centre for Disease Control (CDC) and Prevention has recently released its report on public health incentives to work with pharmacists in the prevention and management of infectious diseases. The Safe People campaign launched more than 32 years ago and has subsequently driven regional public health priorities and metrics in America [7]. The approach of pharmacists to have an effect on other public health issues has been well reported. Pharmacists are placed to influence public health issues requiring expanded access to treatment among medically underserved and marginalized populations through outreach. Pharmacists treating vaccine-preventable infections, the human immunodeficiency virus (HIV), and antimicrobial treatment influence infectious disease situations. Pharmacists also perform a vital function in combating and treating infectious diseases. Pharmacists are primarily experts of disaster preparedness and reaction [7].

Pharmacy instructors play a vital role in training graduates to take on present and potential career issues ready to join the work setting. They operate as key figures in the work climate, and shift movers. Knowing their views on pharmacists' goals and positions in achieving the Safe Communities 2020 target would offer useful insight in promoting the incentives pharmacists have to address their community's public health requirements. The Accreditation Council for Pharmacy Education (ACPE) intends to enhance the pharmacist's position in community safety. ACPE provides criteria that are used to test services that train pharmacy graduates, contributing to a Pharmacy Doctor degree (PharmD). The Centre for Advancement in Pharmacy Education (CAPE) 2014 is strongly cited in the new updated ACPE 2017 guidelines which stresses the value in population-based medicine and how it specifically affects patient-centred treatment [8]. CAPE has acknowledged that pharmacists will work as an inter-professional partnership in conjunction with other health professionals. Pharmacy instructors are to be educated about ways where pharmacists may apply to an individual's or community's health care not just to discuss the work resources that await them upon graduation, but also to educate

them appropriately as models to learners. When higher learning programs concentrate instruction upon careers of yesterday, then graduates will have to prepare and achieve work in medical-care facilities of yesterday, not strengthen and develop the standard of service for people and societies [7,8].

Such awareness extends beyond pharmacy education and has contributed to the creation of the Inter-Professional Collaborative Education (IPEC), which actively links healthcare professionals to advance treatment. IPEC was founded in 2010 when six regional health education organizations, covering allopathic and nursing, osteopathic medicine, pharmacy, dentistry, and health of the people, came together to collaborate together to better train potential health practitioners for 'enhanced patient team-based treatment and increased community health results [9]. Skills and knowledge were developed to assist instructors build curricula that will incorporate the inter-professional shared experience into account. The World Health Organisation (WHO) has described an inter-professional education which happens when learners from 2 or more careers learn about, from, and with each other to allow successful cooperation and improve health outcomes. Faculty trainers, health professionals and graduates need to consider what a health professional will bring to an individual and a community treatment. Inter-professional education (IPE) offers the learner pharmacists the ability to explain how they progress past the single function in drug delivery and into certain aspects of patient care [10].

The recent project of keeping the people safe is one of the programs that can greatly promote the pharmacist's IPE goals and move to using expertise and abilities gained in new innovative ways. The aim of this research was to evaluate pharmacy educators' expectations regarding pharmacists' objectives and responsibilities in achieving the goals of this project. The study opted not to examine the views of pharmacists, the population and other sources of health care. As stated earlier, there are several research studies that illustrate the importance that a pharmacist has in clinical service rendering. None clearly stresses that pharmacists fulfil the Good Living 2020 targets individually. Certain views of the pharmacist's position in achieving the goals of this project may be the subject of follow-up studies by these or other researchers in this sector.

Commitment involves a patient's dedicated and consistent participation with a care program, with regards to ARV (Antiretroviral), which implies taking ARV on time, as administered. For ARV, anything other than a near-perfect adherence to medication will lead in reducing the drug's potency with the resulting production of resistant virus strains. This becomes appropriate as compliance has emerged as both the important determinants of patient outcomes and the Achilles' heel. This aims to identify the aspects that contribute to ARV adherence by many HIV patients visiting the HIV Clinic. It was a succinct, cross sectional analysis.

According to a study conducted by random sampling method, to choose 350 people living with HIV / AIDS from around 1700 who attended the clinic within 1 month and who were on ARV drugs for at least seven months [11]. Structured interviewer-controlled list of questions was utilized to gather socio-demographic details on patients, awareness of HIV and ARV medications, adherence evaluation (utilizing their treatment timing and missing doses as primary markers over a 3-day period) and standard of care. A 4-day self-report for patients is a fairly straightforward and generally appropriate way of measuring professional procedure commitment. The data was evaluated using statistical software Epi and $p < 0.05$ was considered for examining statistical significance. Findings revealed that 76% of participants were women. Seventy-nine per cent received high and post-graduate schooling. Only 35% adhered to the recommended drug-taking period and 75% had good adherence (did not skip their medications within 3 days). The widely cited explanations for skipping prescription medication dose and pacing were: actually ignoring 50%, leaving medicine at home 24% and stressful social atmosphere were 18%. The main facilitators were 59% remembering the usage of mechanical tools and 44% making ARV part of the everyday routine [11]. The ARV compliance rates were significantly compared with those seen in developed and emerging nations. This is advised effective medical care and training, emphasizing the usage of warning devices, and recovery providers.

Managing severe infections is a compromise between supplying specific patients with effective and sufficient broad-spectrum clinical treatment, which has been reliably shown to enhance results, and minimizing excessive usage of antimicrobial agents, which can lead to the production of antimicrobial resistance. Hospitals

typically adopt systems intended to maximize the usage of antimicrobials to monitor the dissemination of antimicrobial resistance, assisted by initiatives to prevent infection. An antimicrobial control system that varies from hospital to hospital, also known as antimicrobial stewardship initiatives, are mainly focused upon instruction combined with a front-end method (i.e. limiting the use of chosen antimicrobial agents) or a back-end method (i.e. evaluating wide-spectrum scientific therapy and instead, as suggested, streamlining or liquidating therapy depending on community and nutrition. Institutional attempts to maximize the usage of antimicrobials will concentrate on patient safety, must include multidisciplinary assistance, these institutions will use a mix of approaches specific to the health-care organization's requirements, expertise and IT systems [12].

Researches explain the effect of living in a resource-constrained environment of a public health pharmacy. In 2012, in conjunction with Moi Teaching and Referral Hospital and the Academic Method to provide Access to Healthcare (AMPATH), the Pharmacy Colleges developed a special Global Health Residency located in Africa. The first of its sort, this residence has a community composed of pharmacists from both Africa and the USA. There is actually a severe scarcity of pharmacists in Africa, with a ratio of 1:20,000 people and > 300 vacant vacancies of clinical pharmacist [13]. Additionally, the scarcity of pharmacists and other healthcare professionals, there is a decline of, among others, treatment systems that handle infectious illness, emergency and urgent care facilities, and the supply chain for drugs. The strategic aim of the residency is to develop pharmacy leaders with the expertise and abilities to create innovative systems based on overcoming obstacles to healthcare in both resource-poor and -rich settings. To date, seven US people and nine African nationals have achieved citizenship. Such students have built 11 affordable pharmacy systems that guided patient treatment. That service / program was modern and is still in use on the web. Other facilities include: an inpatient anti-coagulation system, self-sustaining prescription dispensing, remote outpatient hypertension and diabetes clinics, gestational diabetes treatment, peer-based patient screening, fraudulent medicine identification, pharmaco-covigilance network funded by the WHO, a drug monitoring centre, and cardiology and oncology intensive care unit facilities. In fact, the residents were involved in

the creation and maintenance of a website for pharmacy patient treatment. The Purdue University College of Pharmacy (PUCOP) international health residency has established professionally qualified pharmacists to build novel, viable approaches to resource-poor patient care problems and skilled pharmacists to fill the vacant roles in Africa [13].

Monitoring adverse drug reactions (ADRs) and developing a pharmacovigilance program are the day's imperative to maintain patient health and reduce opioid-related morbidity and mortality. Researchers perform a study to evaluate healthcare practitioners' awareness, mindset, and behaviours about pharmacovigilance (PV) in Pakistan's Punjab province's Bahawalpur city. The findings reveal that only the respondents were questioned regarding their information about the country's Isosorbide 5-mononitrate disaster (2012-2013). This was a correlational, non-experimental, concise, questionnaire-based study that was performed at Bahawalpur Victoria Hospital and Civil Hospital. Both consented health care practitioners were required to self-complete a purpose-designed standardized questionnaire utilizing the easy sampling methodology. A scoring scheme was utilized to evaluate the healthcare professionals' knowledge of PV. Statistics is provided using counts and ratios. While using the Mann-Whitney-U method and the Kruskal Wallis study, the association among the participants' behaviours and the median information score was evaluated. A p-value below 0.06 was deemed to be statistical significant as this value suggests that the hypothesis is true. A total of 110 healthcare practitioners involved in the research comprising 90 physicians and 20 pharmacists. The respondents' median mean scores were 9 (8, 12) out of a total score of 18. Most of the respondents expressed a positive behaviour towards implementing the healthcare sector PV system. In this, 25 respondents (23.6%) did not recognize the exact reason of death among the patients taking 6-mononitrate Isosorbide [14]. Monitoring and tracking of ADRs is not regularly conducted because of various reasons. After almost four years of 6-mononitrate Isosorbide catastrophe, the respondents nevertheless showed low awareness, and lack of PV relevant activities. Positive outlook about applying the PV program is a positive omen though.

In December 2019, SARS-CoV-2 first emerged in China and quickly spread across the globe. There is no vaccination or licensed medication

authorized to nullify the virus, although certain medications suggested for certain afflictions tend to be theoretically effective in curing the infection, but without empirical evidence. The major purpose of previous studies was to evaluate the reported history upon the efficacy of COVID-19 against such substances. A comprehensive literature review on recently reported COVID-19 relevant issues was performed. Databases scanned for Google Scholar; PubMed and Science Direct. A total of 23 products were considered worthy. This addresses medical results from their approved medications through diagnosis of COVID-19 patients, 5 experimental study findings, one animal test result, and 10 other studies address guidelines and solutions focused on the therapeutic method and clinical effects of certain diseases like measles, ebola, extreme acute respiratory syndrome and respiratory syndrome in the Middle East [4]. The evidence and/or guidelines are divided into 4 classes: anti-inflammatory and anti-viral drugs; anti-malaria drugs; conventional Chinese drugs; and other therapies or drugs. All the therapies reviewed, while successful potential against COVID-19, need either proper product production or clinical testing to be sufficient for clinical usage [4].

The usage of drugs for performance enhancement is popular to sportsmen in all levels and ages. Worldwide the World Anti-Doping Agency (WADA) is responsible for anti-doping programs, laws and legislation of science, awareness and development. The goal of researchers is to evaluate World Anti-doping Code (WADC) awareness and to evaluate the prevalence of doping among Maltese sportsmen. This is also meant to test the skills of neighbourhood pharmacists and medical professionals (GPs). Standardized questionnaires were utilized to gather the results, provided for each of the 3 classes. The questionnaires each included four parts evaluating socio-demographic factors, WADC awareness and the restricted List-International Standard and access to sport doping education. The questionnaires brought back a total of 98 sportsmen, 98 Ps and 56 GPs. 38.2 percent of sportspersons, 52.6 percent of Ps and 68.4 percent of GPs accurately understood the definition of WADA. Awareness of the 'restricted List-International Norm' has proved to be weak, with the majority of individuals unfamiliar with the document (74.3 percent sportsmen; 85.9 percent Ps; 66.6 percent GP). Sports participants received an average ranking of 5.65 out of 18 as

they were checked regarding their understanding of the role of individual substances in the Prohibited List. When asked about the status of prescription medications, health care providers (HCPs) also acquired low marks (Ps: 4.67; GPs: 4.14 of a possible score of 20) [15]. This suggested a general shortage of Prohibited List information. In respect to illegal drugs being dispensed and sold, 9.2 percent of Ps and 10.2 percent of GPs reported that they have been asked for medication or to dispense controlled medicines to a community of sports persons. Just 33.0 per cent of sportspeople, 14.7 percent of Ps and 3.7 percent of GPs identified themselves as educated regarding sports cheating.

2. METHODOLOGY

2.1 Design

A nationwide study was undertaken to determine the views of pharmacy instructors on goals of the project of keeping the people safe for pharmacists. The final instrument of the 12-item survey included three significant parts. Throughout the first segment, demographics is gathered to clarify the participants' individual and career background. During the second segment, participants were then asked to list their 5 most important goals (1 lowest priority and 5 higher priority) among the 9 groups to enhance the nation's safety. This may only be utilized once for the number 1 to 5. At the last stage the respondents were asked to list their 5 most relevant categories regarding the position of pharmacist in achieving the results of nine categories. Once again, every number 1 - 5 may be utilized only once.

2.2 Sample

With approval from American Association of Colleges of Pharmacy (AACCP), the survey was circulated to all Public Health Special Interest Group (PH-SIG) participants. In a final delivery of the sample to 610 individuals, e-mails that were incomplete or undeliverable were omitted from the overall PH-SIG membership list. Because of the complexity of the dissemination of listserv, the researchers were not able to check the individual reception of the electronic sample from the whole delivery list. The real answer rate could be higher than recorded if a small number of delivery list individuals did not get the surveys or headed to spam.

2.3 Instrument

Depending upon this initial appraisal, it was acknowledged that there was an ability to define existing attitudes among pharmacy instructors about pharmacists' goals and responsibilities in meeting these goals. The subjects of the project of keeping the people safe were divided into nine main groups, focused on the literature analysis and the professional viewpoints of the PH-SIG representatives: Chronic illness; occupational factors; microbiology; medical services; lifestyle of bacterial infections; cognitive wellbeing; preventative measures; and well-being. The draft survey was established and submitted to a total of 20 representatives of PH-SIG and associates who are pharmacy professors at their organizations educating public health. The instrument has been updated to increase the face validity of the sample, relying on the views of the professionals. This is helpful for researchers who can utilize it in potential studies to provide a reliable survey instrument. Essentially, this would improve the intrinsic relevance and the outcomes generalizability. The Institution of assured research studies at Los Angeles has decided this study to be an excluded test.

2.4 Data Analysis

The expectations of pharmacists about the value of categories and the pharmacist's position were tested through Chi-squared tests through respondent demo-graphics. Specifically, whether they had a clinical practice location, participant faculty level, public health degree, and whether they taught public health education. We examined discrepancies in support of the value of the subject and the position of pharmacist over the years of academic training. P value of 0.05 has been used to suggest statistical significance. Software SPSS®, version 25, was utilized for statistical analysis.

3. RESULTS AND DISCUSSION

Sample management to 610 persons culminated in 145 answers where 123 performed the entire sample, resulting in an answer rate of at least 21.4%. The regional range of the respondents in the sample varies greatly, and the overall number of states covered was 38 of 52 (73%). The 93% of participants were leaders of PH-SIG. Many of the participants were fresh to academic pharmacy (35%) and studied less than 6 years or who were very seasoned (30%) with more than

16 years of training. 93% of the respondents held full-time graduate programs. Approximately one-third occupied management jobs, and more than half had a professional treatment location, with most (58%) in an outpatient environment. 73% of them kept the position of associate professor associated with years of clinical service. More than 67% of the respondents with a background in public health recorded obtaining a Master in Public Health (MPH) degree, and 72% actually teach public health in the pharmacy curricula (Table 1).

There certain interpretation exists within the demographic features regarding the significance of the pharmacist role. Individuals who have experience of greater than 20 years in the academic practices are validated with the environmental aspects. Respondents having much experience are intended to perceive a pharmacist's position as being essential to health care providers relative to the individuals who have less experience. Individuals who are involved in a degree of public health belonged to a pharmacist's position as essential for prevention and welfare relative to the individuals who were not involved in degree of public health. Lecturers working for full time in an institute were less authorized than associate professors to accept chronic illnesses as a concern.

As shown in Table 2, Respondents were rated as per their chronic conditions initially with 68 out of 200, from which 47 (69%) have scored 5 and 21 (31%) have scored 4 on the five-point Likert scale, with facilities of healthcare among 55 out of 112, 34 (61%) have scored 5 and 21 (39%) have scored 4, as accompanied with the preventive health-care sector 28 out of 75 from of which 16 (57%) have scored 5 and 12 (43%) have scored 4, as accompanied with the lifestyle 48 out of 110 from which 22 (45%) have scored 5 and 26 (55%) have scored 4, as accompanied with the environmental considerations 26 out of 74 from which 8 (30%) have scored 5 and 18 (70%) have scored 4.

Compared to the project of keeping the people healthy, several pharmacists located in America were unsure of goals of millennium development and how they could relate to the implementation of those objectives as an independent medical practice in an industrialized country. The sustainable goals of development goals have also succeeded the goals of millennium development and set out to foster prosperous and sustainable economies and concentrate over

the change in environment, a major environmental threat. They too, like the goals of millennium development, are 20-year targets that are just another illustration of where pharmacists around the world might have a difference. To practice, both knowledge and information about the targets and also how pharmacists may relate to them are crucial. That will be achieved by standardizing certain curricular factors and providing similar continued education credentials in regional and public health areas that would explain programs like the recent project of keeping the people safe, sustainable development goals, and the pharmacist's role in these programs. Since the standards of continuing education vary from state to state, it may prove to be a difficulty to allow a certain number of hours to commit to this topic in the license renewal process. However, certain overlapping subjects have been granted even higher importance, and are actually in place.

The Board of Pharmacy requires 40 hours of required continued education in a 26-months span before the certificate expires. With the first renewal period, 1 hour of continued education in the medical field of HIV / AIDS has to be done [16]. Both renewal periods mandate that each pharmacist assist in the avoidance of drug mistakes and the confirmation of prescribing of regulated drugs, and that 15 of 40 hours will be live hours. Sometimes, health insurance and the programs offered are guided by how one views wellness. Findings of study indicate that pharmacists consider medical conditions and primary insurance programs as the main target areas of interest in developing a nation's health insurance. It was rated as 4th on health and well-

being. Compared with the pharmacist's presumed position and whether a nation's wellbeing can be strengthened, public safety, prevention and well-being are strongly rated 3rd of chronic illnesses. If an individual's well-being is described as the conventional definition of being free from sufferings of diseases and pharmaceutical practice focuses solely on managing such diseases and injuries, instead resources are missed and the level of patient care is affected.

Probably the most significant unresolved study issue is the estimation of the impact of vaccines provided by pharmacists on total vaccine levels. A 2005 report examined vaccination levels for influenza in states where pharmacists were or were not allowed to prescribe vaccinations during the report era (2000–1996). The behavioural risk factor Monitoring Program was used to evaluate the vaccine levels, a telephone study performed periodically to measure general safety threats and behaviours over the past 13 months. In 1996, 10 states allowed pharmacists to exempt themselves, while in 1999, 30 states authorized the practice [17]. By the conclusion of the study era, policies that required pharmacists to offer immunizations saw slightly more people vaccinated against influenza in all age ranges relative to certain states that didn't. Such results are highly noteworthy considering that in the pharmacist-immunization campaign, the years examined were early. A major flaw of this research was that the method tests patient memory about how they have been vaccinated, and this cause implicit prejudice of recollection. Less beneficial will be potential work reviewing real documents of administration.

Table 1. Participants' demographic features for the survey associated with the role of the pharmacists and its significance. The majority of the participants perceived full-time graduate programs

| The characteristics of the respondents | Percentage of participation |
|---|------------------------------------|
| Individuals associated with the Public Health Organization and the Pharmacy institutions. | 93% |
| Representatives of the states | 73% |
| Professors or instructors (full time) | 93% |
| Professors or instructors (part time) | 7% |
| Representatives of Administration | 39% |
| Site of Healthcare Organization | 56% |
| Associate professors | 73% |
| Assistance professors | 30% |
| Involvement of Public Health in the academic curricula | 72% |
| Individual having experience of less than 6 years | 35% |
| Individuals having experience of greater than 20 years | 30% |

Table 2. Interpretations of demographic features regarding the significance of the role of the pharmacists where the respondents were rated as per their chronic conditions

| Factors | No. of votes | Respondents (with score of 5 on Likert scale) | Respondents (with score of 4 on Likert scale) |
|--------------------------------|--------------|---|---|
| Health-care facilities | 55 | 34 | 21 |
| Chronic conditions | 68 | 47 | 21 |
| Preventive health-care sectors | 28 | 16 | 12 |
| Lifestyle | 48 | 22 | 26 |
| Environmental considerations | 26 | 8 | 18 |

4. CONCLUSION

The definition of neighbourhood pharmacy, though, applies primarily to pharmacy services housed in primary care facilities, like community health support centres and community ambulatory clinics. They obey state and regional policy laws, which offer service-dispensing prescribed drugs and other pharmacy facilities. Retail stores pay the selling of some prescribed drugs, over-the-counter drugs, vitamins, and health-related goods and equipments. These are not deemed part of the healthcare network, because these obey the laws of different corporations. As per the survey conducted in this research, pharmacy practitioners have shown impact on managing the health conditions of the individuals who are suffering from severe disease. The determinants and outcomes of the health has been taken into considerations as an associated aspect of health definition. As compared with the conventional procedure of the payment structure, there is no need of continuously evolving in order to offer services' compensations.

The project developed for keeping people healthy in every pandemic situation is a kind of health initiative associated with the implication of pharmacists, medical practitioners, to enhance the medical treatment procedures, avoiding admission of large numbers of patients and improving the public health. Several interpretations of demographic features regarding the significance of the role of the pharmacists have been shown in the result which was important for disseminating the awareness regarding the project of keeping the people healthy. It is concluded that respondents having much experience are intended to perceive a pharmacist's position as being essential to health care providers relative to the individuals who have less experience. Individuals who are involved in a degree of public health belonged

to a pharmacist's position as essential for prevention and welfare relative to the individuals who were not involved in degree of public health. There exist several limitations in this research, only the pharmacy instructors are involved in the proposed design. The rate of response was found to be low (about 22%). In future, there is a need to investigate the assessment of this project with the help of the obtained data. Overall, the present study can be potential layout for benefits of educating pharmacists in order to achieve the goal of keeping the people healthy in the pandemic situations.

CONSENT

As per international standard or university standard, Participants' written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. WHO. (WHO). Emergencies preparedness, response; 2020. Available: <https://www.who.int/csr/don/archive/year/en/> (accessed Dec. 09, 2020)
2. Cascella M, Rajnik M, Cuomo A, Dulebohn SC, Di Napoli R, Features, evaluation and treatment coronavirus (COVID-19); 2020.
3. Dae-Gyun Ahn et al. Current status of epidemiology, diagnosis, therapeutics and vaccines for novel coronavirus disease 2019 (COVID-19). Journal of Microbiology and Biotechnology; 2020.

- DOI: 10.4014/jmb.2003.03011.
4. Rabby Mil. Current drugs with potential for treatment of covid-19: A literature review. Journal of Pharmacy & Pharmaceutical Sciences; 2020.
DOI: 10.18433/jpps31002.
 5. Mikulic M. Number of pharmacists in the U.S. from 2001 to 2019; 2020.
Available: <https://www.statista.com/statistics/185723/number-of-pharmacists-in-the-us-since-2001/#:~:text=Trends clearly indicate that the, demand for pharmacists is obvious.>
 6. Editorial Board, "Fall," Cornell Int. Aff. Rev. 2017;11(1):1–10.
DOI: 10.37513/ciar.v11i1.501.
 7. Murphy PA, Frazee SG, Cantlin JP, Cohen E, Rosan JR, Harshburger DE. Pharmacy provision of influenza vaccinations in medically underserved communities. Journal of the American Pharmacists Association; 2012.
DOI: 10.1331/JAPhA.2012.10070.
 8. Medina MS et al. Center for the advancement of pharmacy education 2013 educational outcomes. American Journal of Pharmaceutical Education; 2013.
DOI: 10.5688/ajpe778162.
 9. Interprofessional educational collaborative, I. C. Practice and U. Values, core competencies for interprofessional collaborative practice: 2016 Update. Interprofessional Educ. Collab. 2016;10–11.
Available:
<http://www.ncbi.nlm.nih.gov/pubmed/22030650>
 10. Accreditation council for pharmacy education, accreditation standards and key elements for the professional program in pharmacy leading to the doctor of pharmacy degree; 2015.
 11. Deye N et al. Changes in cardiac arrest patients' temperature management after the 2013 'TTM' trial: Results from an international survey," Ann. Intensive Care; 2016.
DOI: 10.1186/s13613-015-0104-6.
 12. Peterson DL. The role of antimicrobial management programs in optimizing antibiotic prescribing within hospitals. Clinical Infectious Diseases; 2006.
DOI: 10.1086/499407.
 13. DH, KK, KS. Quality assurance processes for immunization administration in the community pharmacy setting. Journal of the American Pharmacists Association; 2018.
DOI:
<http://dx.doi.org/10.1016/j.japh.2018.04.004>.
 14. Hogue MD, Grabenstein JD, Foster SL, Rothholz MC. Pharmacist involvement with immunizations: A decade of professional advancement. Journal of the American Pharmacists Association; 2006.
DOI: 10.1331/154434506776180621.
 15. Alsamydai AMJ, Ahmed Basim Mohammed Baqer. Measuring patient satisfaction regarding the quality of healthcare service provided by pharmacists. International Journal of Medicine and Pharmaceutical Science. 2015;5(6):71-84.
 16. Adegun Adewole Isau. Effects of cataloguing and classification schemes on the organization of knowledge in medical libraries. International Journal of Library and Educational Science. 2016;2 (1):9-20.
 17. Chandrika KB. Need and intervention of social workers in public health care services and social development. International Journal of Humanities and Social Sciences. 2015;4(1):57-62.

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