Community Pharmacists' Contribution During a Public Health Crisis Such as COVID-19

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Summary

Background: Community pharmacy is one of a number of health professions that has a key role to play in responding to the current pandemic. Aim and objective was to study the problems in the midst of public health crisis of the current magnitude with the roles and activities of pharmacists.
Methodology: The study was carried out among 384 consumers using pharmacy in the regions of Armenia and Yerevan. Primary information was collected using a questionnaire. The results were analyzed with SPSS statistical software, version 12.0.
Result: During the study it becomes clear that 37% of pharmacy consumers have different health problems diagnosed by the doctors. Most of them don't trust the information provided by pharmacy employees. Very few of consumers are clearly satisfied with the answers of a pharmacy employee (29%).
Conclusion. In the midst of the current public health crisis community pharmacist can potentially reduce GPs' minor ailment-related workload. There is a need to develop pharmaceutical care algorithms for minor ailments, national emergency drug formularies for public health crises such as COVID-19.
Keywords: Covid-19, pharmaceutical care, pharmacy employee, algorithm

Introduction

The spread of COVID-19 is placing unprecedented demands on healthcare services. In order to maximise the use of current available resources, it is important that existing services are comprehensively reviewed and full use is made of any unrealised potential among healthcare providers. During the current pandemic, it is recognised that pharmacies will often be the first point of contact with the health system for individuals with COVID-19 related health concerns or who require reliable information and advice [1]. Other roles and activities for pharmacists that should be considered as part of any reorganisation include medicine use reviews [2], chronic disease management [3], and a greater involvement in general practice activities as practice-based pharmacists as is the case in the UK [4]. A recent consensus exercise identified a wide range of roles that pharmacists can undertake in response to different types of disasters, such as pandemics, across four key phases :prevention, preparedness, response and recovery [5]. More recently, the International Pharmaceutical Federation (FIP) published guidelines for the pharmacy workforce that outline key activities that form part of pharmacists' professional responsibility during the current pandemic [1].
Although the main focus of healthcare services over the coming months will undoubtedly be on responding to COVID-19, people will also continue to develop other non-COVID-19 related symptoms and diseases that require attention. Depending on the nature and severity of these ailments, previous researches has shown that a sizeable proportion of cases can be effectively managed in the community pharmacy with a high degree of patient satisfaction [6]. This is important to maximising the efficiency of health service delivery as data from the UK indicates that more than one in 10 general practitioner (GP) visits and one in 20 emergency department visits are for minor ailments that could be managed in pharmacies [7].
Designated pharmaceutical care algorithms exist in different countries that enable community pharmacists to assess individuals who present with particular minor ailments and offer appropriate self-care advice and treatment options. These include OTC and certain prescription medicines from agreed formularies. These algorithms are intended to reduce the associated burden of treating these ailments on high-cost settings such as general practice and emergency departments. These types of schemes are of particular importance in the midst of the current public health crisis, because they could potentially reduce GPs' minor ailment-related workload by more than 50% [8,9].

An outbreak of coronavirus disease 2019 (COVID-19) caused by the novel severe acute respiratory syndrome coronavirus began in China in December 2019 [10]. Chinese pharmacists have acted swiftly in the public health response, such as drafting professional service guidance to pharmacists, establishing emergency drug formularies, monitoring and resolving drug shortages, establishing remote pharmacy services to prevent human-to-human infections, providing event-driven pharmaceutical care, educating the public on infection prevention and disease management, and participating in clinical trials and drug evaluation. In order to effectively reduce overcrowding and block the spread of the virus through person-to-person transmission during the coronavirus epidemic, medical institutions across China have launched remote pharmacy services such as online drug consultation, and drug delivery services [11].

The aim of our study is to examine the problems in the midst of public health crisis of the current magnitude with the roles and activities of pharmacists. Solutions to problems can contribute to rational counseling, as well as can undertake to help in relieving pressure in other areas of the health service, such as general practice and emergency departments. This information can help to inform future decisions about the restructuring of existing health services by governments, public health bodies in response to public health crises such as COVID-19.

Methodology

The survey was conducted among 384 consumers selected randomly sampling in the regions of the Republic of Armenia (RA) and in Yerevan in 2019, using anonymous profiles.

To examine the the problems with the roles and activities of pharmacists in the Republic of Armenia, we used the questionnaire survey method developed on the basis of standard WHO consultation questionnaires (2006), taking into account the specifics of work [12]. Questionnaires drawn up in Armenian were accessible to users of all age groups and educational levels. Criteria including age 18+, permanent residence in RA. The survey was conducted in accordance with the wishes of the participants. The results of this study were made by statistical methods that were universally recognized. The collected data were registered in statistical the SPSS software package (version12.0).

Result

The results of the questionnaire survey carried out among 384 consumers with different ages and education.

To the question '' Do you have health problems diagnosed by the doctor? '', the answers were classified as follows: 37% of consumers had different health problems, 63%-of them did not have (Fig.1).

It turns out that only a small percentage of consumers (11%) trust a pharmacy employee information source. 15% of responders trust internet information, 6% information from friends, and the majority (51%) said that they only believe doctors advice (Fig.2).

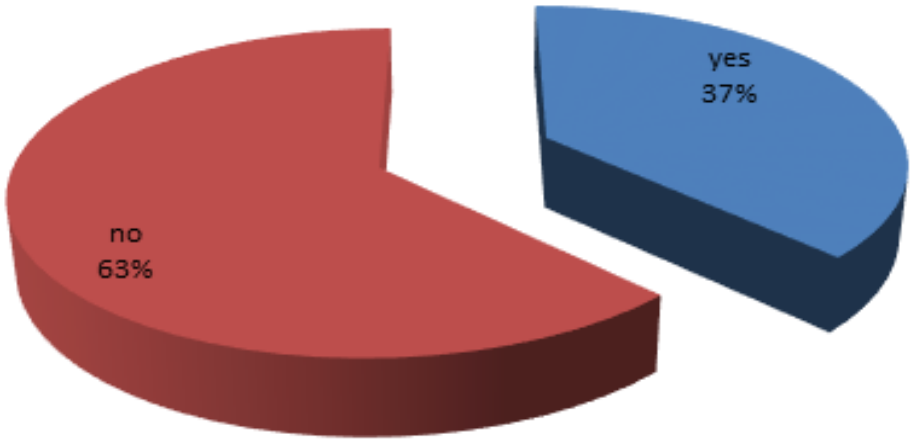

Fig. 1. Do you have health problems diagnosed by the doctor?

To the question "Does the pharmacy worker fully respond to your questions?" Most consumers (53%) answered that they are sometimes satisfied with the answers of a pharmacy employee. 26% of them clearly stated that a pharmacy employee was aware of all the questions asked, and 21% said that a pharmacist could not answer the questions of the patient (Fig.3).

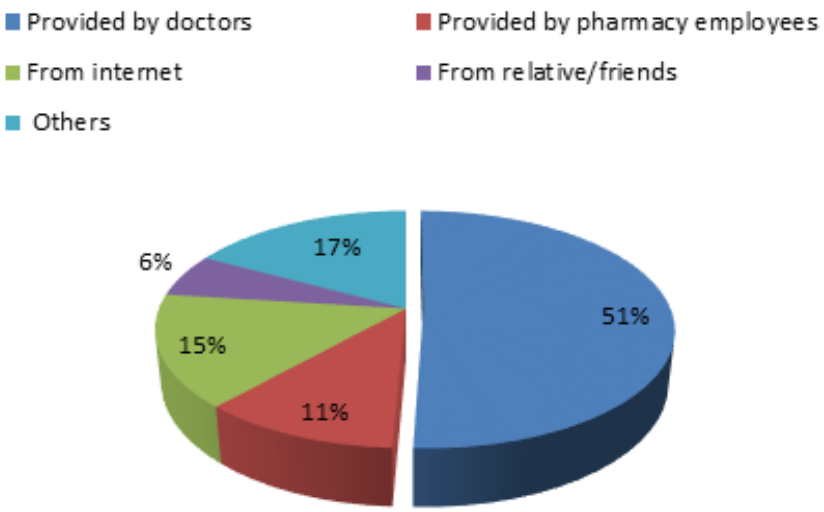

Fig.2. "Which type of medicine information do you trust the most?"

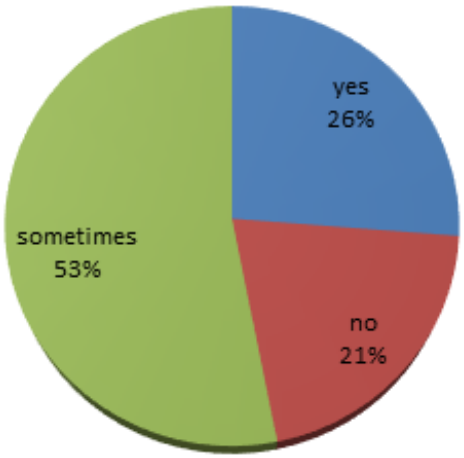

Fig.3. Consumer satisfaction with the answers by pharmacy employee about medicine

Discussion

The results of the questionnaire survey carried out among 339 patients with different ages and education.

Most of them had a different health problems diagnosed by the doctor such as cardiovascular disease, diseases of the nervous system, diabetes, even cancers. COVID-19 is a new disease and there is limited information regarding risk factors for severe illness. Based on currently available information, older adults and people of any age who have serious underlying medical conditions might be at higher risk for severe illness from COVID-19. Evidence from China, Europe, and the USA indicates that older individuals, males, and those with underlying conditions such as cardiovascular disease and diabetes are at increased risk of severe COVID-19 and death. Pharmacists shall support pharmaceutical care services by providing strengthened care for special population and patients with combined underlying diseases.

During the study it becomes clear that very few percentage of consumers (17%) trust the information provided by pharmacy employees. According to the results of our survey, the majority of consumers (34%) trust the advice of a physician. It is assumed that a large number of consumers in the RA, turn to a doctor even for a mild illnesses, as they do not trust the advice of the pharmacy employee. Surely, this is a good indicator in self-medication process, but we know that we have some mild illnesses and a large group of medicines that the patient can buy from the pharmacy without a doctor's prescription, saving time and money. In the midst of the current public health crisis community pharmacist can potentially reduce GPs' minor ailment-related workload.

Its became clear that very few of consumers (29%) clearly satisfied with the answers of the pharmacy employee. Pharmacists are undertaking dual responsibilities in the process of drug supply and management, and pharmaceutical care. The lack of pharmacist consultations can lead to an overutilization and inappropriate use of antibacterial medications. This behavior increases the risk of microbial resistance and adverse reactions. These incidences demonstrate that it is necessary for pharmacists to engage in public education to disseminate reliable authoritative information to the public and guide the public's rational thinking and behavior during the coronavirus epidemic. It is important to note that the impact of public education activities depends on the public trust of pharmacists and pharmacy as a profession.

The role of the community pharmacists in preventing the spread of COVID-19 virus should-be strengthened. Community pharmacists are

charged with key responsibilities including informing, advising, and educating the community; maintaining a stable supply of pharmaceuticals and personal hygiene products; and screening suspected cases and making appropriate referrals as necessary.

Conclusion

The new COVID-19 module pharmaceutical care model has played an important role in overcoming the epidemic situation of COVID-19 in some countries and thus can be implemented on a broader scale. In order to maximise pharmacists' contribution to the health service and potential to alleviate GP workload, a whole system-level approach will be required. Steps should be taken for improving the professional knowledge of pharmacists about medicines and pharmaceutical care, which, in turn, can restore consumer trust in them, will help avoid self-medication errors by providing advice on medicines in response to public health crises such as COVID-19. An effective coordinated pharmacy support system and event-driven pharmaceutical care activities are needed. Research data can be considered as an indicator that there is a need to develop pharmaceutical care algorithms for minor ailments, national emergency drug formularies for public health crises such as COVID-19.
It is important that governments, public health bodies and policy makers review existing services and make full use of any unrealised potential among community pharmacists. Innovative and extended methods of practice will be needed such as medication delivery services and video-based consultations.

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Abbreviations

RA- Republic of Armenia
GP- General practitioner
OTC- Over the counter
WHO- World Health Organization
FIP- International Pharmaceutical Federation
YSMU- Yerevan State Medical University
SPSS- Statistical Package for the Social Sciences