

A Study of Attitudes toward Pharmaceutical Care during COVID-19 Pandemic in Tbilisi (Georgia)

Eka Pruidze¹, Tamaz Chumburidze², Nino Nemsitsveradze¹, Tamar Chikviladze¹ and Mariam Chrdileli²

1. Department of Social and Clinical Pharmacy, Tbilisi State Medical University, Tbilisi 0186, Georgia

2. Faculty of Education and Psychology, Eötvös Loránd University, Budapest 1518, Hungary

Abstract: Background: After the outbreak of COVID-19 in Georgia, the number of patients visiting pharmacies has increased. It became relevant to research the importance of Pharmaceutical Care in prevention of COVID-19. The aim of the study was to understand the attitudes of patients and physicians regarding the involvement of pharmacists in prevention of COVID-19, after the spring and autumn waves of pandemic; also, what role can pharmacists take in the future and whether they can transfer Good Pharmaceutical Practice (GPP) to Georgia. Study also tried to capture overall attitudes towards involving pharmacists in healthcare projects such as population rapid testing and vaccinations. **Methods:** 522 patients, 1289 pharmacists, and 200 physicians were surveyed regarding their attitudes toward pharmaceutical care during COVID-19 pandemic. **Results:** The study found that 82.2% of surveyed patients who visited pharmacy during pandemic bought medication and COVID-19 preventive items (face mask, disinfectants, etc.). Out of the surveyed participants, 66.9% of patients and 77.1% of pharmacists believe that recommendations given by pharmacists play an important role in the prevention of COVID-19. Study also revealed that 76.6% of pharmacists and 79.3% of patients agree with the statement, the pharmacist should be able to decide whether to choose over-the-counter medications for a patient or refer the patient to a physician. 91.8% of patients and 78.3% of pharmacists believe that during a pandemic pharmacist should provide patients who visit pharmacies with complaints of flu, cold, and fever with Pharmaceutical Care; which is agreed by 41.7% of physicians. 63.1% of patients, 52% of pharmacists, and 45% of physicians have a positive attitude towards administering rapid testing of COVID-19 by pharmacists. The desire for pharmacists to be involved in vaccination was expressed most in patients (43.6%), followed by pharmacists (38.7%), and physicians (36.7%). **Conclusions:** The study showed similar attitudes of patients and pharmacists - Pharmaceutical Care plays an important role in pandemic prevention. The attitude of patients and pharmacists is positive regarding administering Pharmaceutical Care for patients who come in pharmacies with symptoms of flu and cold. Physicians had more cautious attitude towards the issue, indicating that they may see risks of spreading the virus and aggravating patients' conditions. Most patients who participated in the study believe that pharmacists should be involved in pandemic prevention activities - COVID-19 tests and vaccinations. It is recommended that Georgian healthcare system develops projects that support collaboration of medical professionals and bring us closer to Good Pharmacy Practice (GPP). Training of pharmacists along with physicians in scope of pandemic prevention projects should be planned.

Key words: Pharmaceutical Care, COVID-19, Vaccination, Rapid Testing.

1. Introduction

On March 12, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. The current situation has further increased the demand for primary care workers, as well as put forward the role of pharmacists and their main function - Pharmaceutical Care of patients [1, 2].

On February 26, the first case of infection was confirmed in Georgia. The Georgian government has announced full mobilization, and developed an emergency plan to fight COVID-19 [3, 4]. As a result of the country's state of emergency, pharmacies became the only place in the spring of 2020, where people could buy pandemic prevention products (face masks, disinfectants, etc.) and get recommendations on their proper use [5]. Due to increasing number of patients visiting pharmaceutical establishments, the protection and safety of patients and staff, as well as

Corresponding author: Eka Pruidze, A PhD student, research fields: pharmaceutical care during COVID-19 pandemic.

provision of Pharmaceutical Care in accordance with international guidelines, became very important [6-9].

Because of the changes that occurred during COVID-19 pandemic, studies of pharmacists' and patients' attitudes and needs regarding the role of pharmacists are relevant. This study aimed to touch on what role can modern pharmacists play in preventing the outbreak, as an active worker of primary healthcare; what are the attitudes of physicians and patients toward pharmacists, and Pharmaceutical Care during the outbreak. The study also sought to investigate the extent to which pharmacists are involved in COVID-19 prevention measures and how pharmaceutical care is administered to patients complaining of flu and colds at pharmacies. Lastly, the study tried to investigate whether there was a public request for pharmacists to participate in COVID-19 testing and vaccination (transfer of Western experience, principles of good pharmaceutical practices to Georgia), as well as the attitudes of pharmacists and physicians themselves towards the involvement of pharmacists in COVID-19 vaccination process [2, 10]. In the case of a new COVID-19 outbreak, the results and conclusions of the study can be taken into account.

2. Methods

200 physicians, 1289 pharmacists and 522 patients participated in the study. The participants of the study were recruited via social media advertisement.

1) Among the 200 physicians, 28.3% had 1-5 years of working experience and 71.7% had 6 years or more working experience.

2) Among the 1,289 pharmacists, 40.8% had 1 to 5 years of working experience and 59.2% had 6 years or more of working experience.

3) Among the 522 patients, 48.3% were under 35 years old, 47.1% were between 36 and 55 years old, and 4.6% were over 56 years old.

Participants were presented with statements about pharmaceutical care during the current pandemic and

asked to evaluate them on a 5-point scale (1 = completely disagree and 5 = completely agree). Questionnaires included questions such as "I think that during COVID-19 pandemic, a pharmacist can get involved in health projects such as administering rapid tests" and "I think during COVID-19 pandemic, a pharmacist should get involved in health projects regarding to vaccinations". The contents of the survey took into account the specific situation of the country and the concept of pharmaceutical care [5, 11].

3. Results

The study found that 82.2% of the patients went to pharmacies to buy infection-prevention products (poultice, disinfectant solution, etc.) and received recommendations from pharmacist on their proper use. This indicates an increased role for pharmacists in pandemic prevention.

The study also showed that 76.6% of pharmacists and 79.3% of patients either completely agreed or agreed with the following statement "During pharmaceutical care, the pharmacist should be able to decide whether to choose over-the-counter medications for a patient or refer the patient to a physician" (Chart 1). Patients' attitudes and pharmacists' were similar on this issue, with physicians' attitudes varying widely with only 27.5% of physicians either completely agreeing or agreeing with the statement, while about half of physicians disagreed or complete disagreed at all.

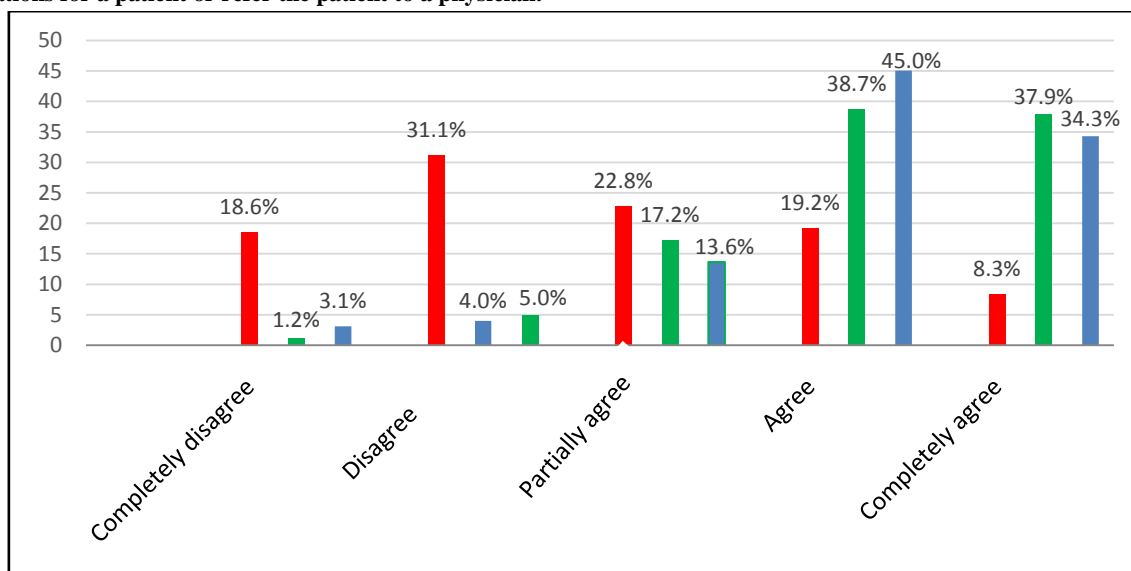
The majority of pharmacists and patients fully agree or agree with the statement that "pharmacists should provide pharmaceutical care for patients with influenza, cold and fever" (Chart 2), with 91.8% and 78.3% respectively. More physicians (41.7%) completely agreed or agreed with this statement. This may indicate that physicians prefer patients to turn to pharmacists for "simple" complaints. However, 29.1% of physicians are opposed to this, indicating that approximately one-third of them saw the risks of being misdiagnosed by a pharmacy pharmacist,

aggravating a patient's condition and spreading the virus.

The study found that 66.9% of patients and 77.1% of pharmacists believed that pharmacist recommendations played an important role in preventing COVID-19 (Chart 3). Their attitudes on

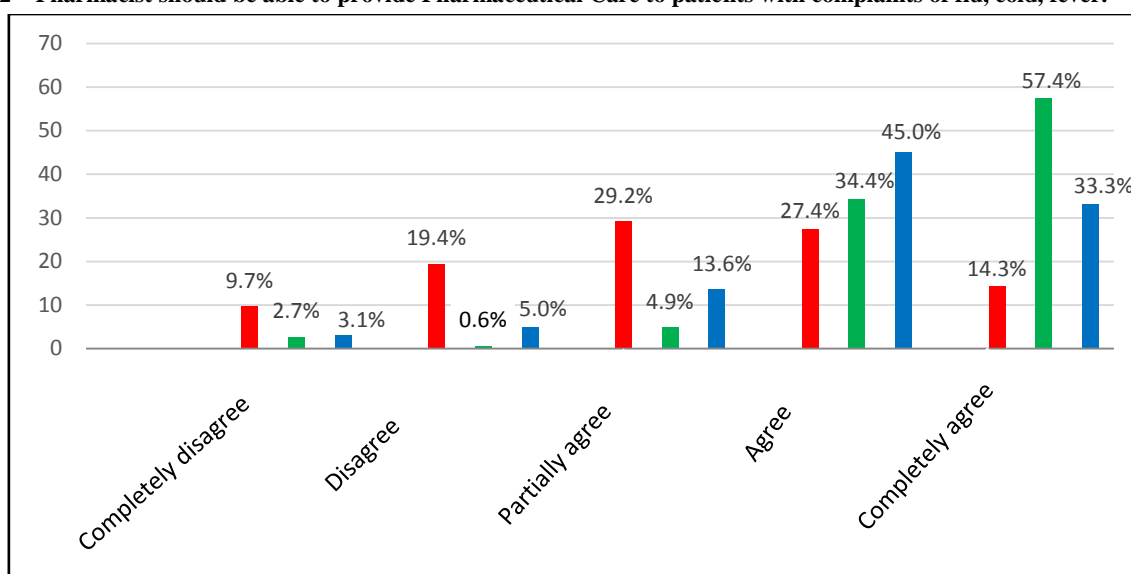
this issue are similar, and different from that of physicians. Only 43.2% of the physicians surveyed agreed with the importance of pharmacists in preventing the current influenza pandemic, while 35.5% partially agree with the statement and 21.3% of the physicians disagree or completely disagree at all.

Chart 1 During Pharmaceutical Care, the pharmacist should be able to decide whether to choose over-the-counter medications for a patient or refer the patient to a physician.

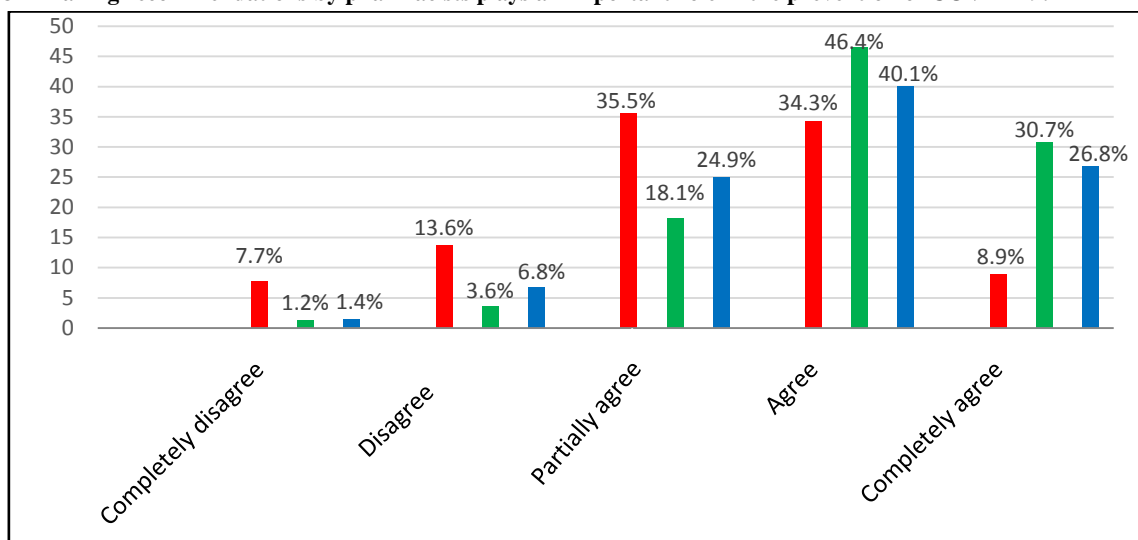


Blue line indicates patients, green line indicates pharmacists, and red line indicates physicians.

Chart 2 Pharmacist should be able to provide Pharmaceutical Care to patients with complaints of flu, cold, fever.



Blue line indicates patients, green line indicates pharmacists, and red line indicates physicians.

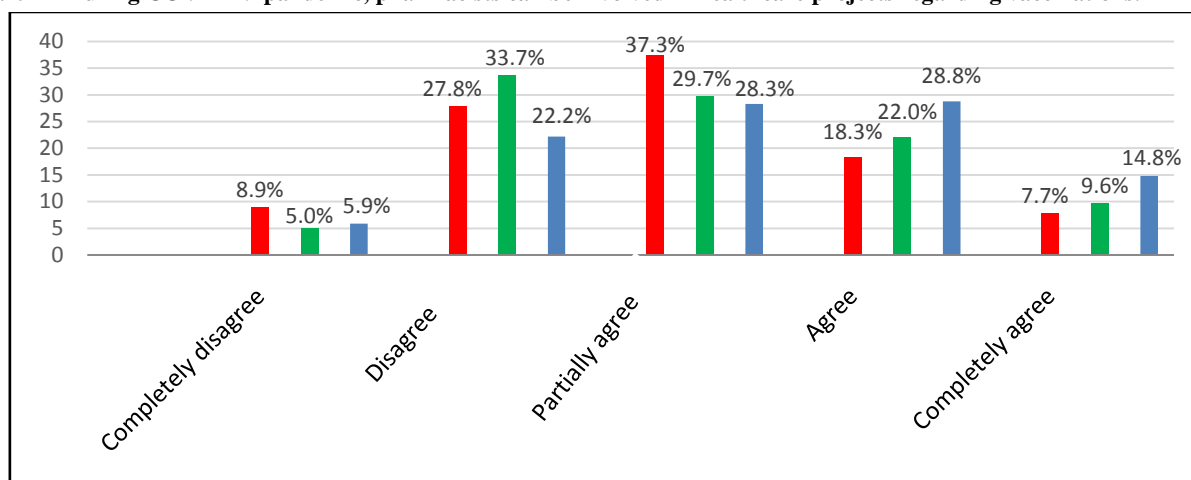
Chart 3 Making recommendations by pharmacists plays an important role in the prevention of COVID-19.

Blue line indicates patients, green line indicates pharmacists, and red line indicates physicians.

The study reflects patient attitudes toward pharmacists administering rapid COVID-19 tests. 63.1% of patients expressed their need for this. Half of the surveyed pharmacists (52.7%) are ready to meet the public's demand, while the rest were reluctant or opposed, indicating that some pharmacists were not ready to engage in testing. Their attitudes were closer to those of other respondents when it came to pharmacists administering rapid tests (45.3% either completely agreed or agreed, 35.9% partially agreed). That means that some physicians support pharmacists

for quick tests.

The results showed that patients had the highest awareness of pharmacist participation in vaccination of COVID-19 (43.6%). The majority of respondents partially agreed with this view: 29.7% of pharmacists, 28.3% of patients and 37.3% of physicians. Pharmacists and physicians have the highest proportion of disagreements on health care programs related to vaccination, the proportions are 38.7% and 36.7%, respectively, and the results of the two are similar (Chart 4).

Chart 4 During COVID-19 pandemic, pharmacists can be involved in healthcare projects regarding vaccinations.

Blue line indicates patients, green line indicates pharmacists, and red line indicates physicians.

5. Discussion

The study found that during the current pandemic, patients have a high demand for pharmaceutical care in pharmacies. The importance of the role of pharmacists in the prevention of pandemic has been outlined. By analyzing the data of the respondents, we can conclude that the attitudes and views of patients and pharmacists on some issues (pharmaceutical care, the role of pharmacists in pandemic prevention, etc.) are closer than those of doctors and patients. The study showed that 63% of patients agreed that pharmacists should be involved in rapid COVID-19 testing, and 43% agreed that pharmacists should be involved in vaccination. The cautious attitude of pharmacists and physicians towards this issue has also been revealed. We suggest future research to find out whether this apparent hesitation is due to lack of training.

In conclusion, we can say that more measures should be taken in this area, and large-scale projects should be developed, which will bring us closer to the Western experience and closer to the principles of good pharmaceutical practice [2, 10]. Rapid detection and vaccination of covid-19 is not a difficult medical procedure, and pharmacists can master this skill through 2-3 days of training; similar experience has been shown in the United States and some European countries [11]. It is recommended to plan systemic healthcare projects, including training, workshops, and collaboration of physicians and pharmacists to bring their perspectives and attitudes closer together in order to manage the pandemic effectively. The health care system in Georgia needs to take into account the attitudes of patients and plan to participate in rapid

testing and universal vaccination activities with other health care professionals.

References

- [1] Chumburidze, T., Nemsitsveridze, N., Pruidze, E., Shubitidze, D., Kvijinadze, N. 2019. *Pharmaceutical Care* Tbilisi.
- [2] Legal normative regulations for community pharmacies in European Regions; 2020. (Russian is translated into English).
- [3] The Minister of Internally Displaced Persons from the Occupied Territories, Ministry of Labour, Health and Social Affairs, Order 101-2 27/approved recommendations aimed at preventing the spread of the new coronavirus (COVID-19) in the workplace (Georgian is translated into English).
- [4] Recommendations for New Coronavirus (SARS-CoV-2) Infection (COVID-19) - Retail. (Georgian is translated into English).
- [5] Resolution of the Government of Georgia N322 on the approval of quarantine and quarantine rules. (Georgian is translated into English).
- [6] Coronavirus disease (COVID-19) pandemic. Geneva: World Health Organization; 2020. <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>.
- [7] COVID-19 SUMMARY GUIDANCE #3 Pharmacy operations and facilities: ensuring safety for all and continuity of service. FIP; 2020. <https://www.fip.org/file>.
- [8] COVID-19 SUMMARY GUIDANCE #5 Community pharmacy contingency plans. FIP; 2020.
- [9] COVID-19 GUIDELINES FOR PHARMACISTS AND THE PHARMACY WORKFORCE. FIP; UPDATED 14 JULY 2020.
- [10] The Role of the Pharmacist in the Health Care System. Geneva: World Health Organization; 2019.
- [11] Pharmacy Partnership for Long-Term Care Program for COVID-19 Vaccination. National Center for Immunization and Respiratory Diseases. U.S Department of Health & Human Services.