



Assessing the Provision of Community Pharmacy Services in Addis Ababa City During the Covid-19 Epidemic

Feroche AT* and Beyene F

Department of Pharmaceutical Chemistry and Pharmacognosy, Addis Ababa University, Ethiopia

*Corresponding author: Alemu Tadesse Feroche, Department of Pharmaceutical Chemistry and Pharmacognosy, Addis Ababa University, Ethiopia, Email: alemu.tadesse@aau.edu.et

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Abstract

Background: Community Pharmacists are frequently the first point of contact for the public, especially during the afflictions. As outlined by the International Pharmaceutical Federation, community Pharmacists have an important public health role during this COVID-19 infection. Since the outbreak of coronavirus complaint 2019 (COVID-19) pharmacists like other health professionals, have been at the frontal line of combating the complaint and remained open, thus playing significant part in minimizing or avoiding its community transmission. Therefore, study was throwing to assess the provision of community pharmacy services during COVID-19 in Addis Ababa, Ethiopia.

Objective: The aim of this study is to explore the experiences of community pharmacists in relation to provision of public services during COVID-19 epidemic in Addis Ababa City.

Methods: Facility based cross-sectional study was conducted in Addis Ababa city administrations from June 28, 2021, to July 30, 2021, with a sample size of 290 and the sample was determined through cluster sampling technique. The result was cleared by Epi Info version 7.0 and analyzed through SPSS interpretation 25.

Result: Methods used to analyze the collected primary data: we used percentage and tables to analyze the data. The exploration finding were grounded on primary source of data. For this reason, we distributed 14 questionnaires to 360 respondents. Out of these, 290 respondents filled out the questionnaires and returned them to the investigators. The results of the study show that during the epidemic, the community pharmacies offered poor pharmaceutical services.

Keywords: COVID 19; Community Pharmacy; SARS-Cov-2; Pandemic; Ethiopia

Background

The coronavirus (COVID-19) is a contagious respiratory epidemic, first detected and verified in Wuhan, China [1,2]. According to the World Health Organization (WHO), the complaint is caused by a severe acute respiratory pattern coronavirus [3]. This infection is a homolog of the coronavirus (CoV) that started an outbreak of the severe acute respiratory pattern (SARS) in 2003 [4]. The disease is known to spread

veritably fleetly and to be passed on through mortal-to-human [5-7] still, there's yet no clear substantiation on the origin of the contagion. Either, the transmission route of the SARS-CoV-2 also remains unclear, although some studies have suggested an implicit threat for airborne transmission [7,8]. The most common symptoms are fever and cough, while gastrointestinal symptoms similar as diarrhea and vomiting are less frequent [9]. With the rapid-fire, sharp increase in the reported cases worldwide, the WHO declared

the outbreak a global epidemic taking all countries to make combined sweats together to combat the disease. This call redounded in countries responding by putting in place strict preventative and precautionary measures, including trip restrictions contributing to the global cause [10,11].

There's no definitive remedy against SARS-CoV-2 yet. Although positive treatment issues have been reported with antiviral remedy on named cases, probative care and oxygen supplementation remain as the dependence of the operation of COVID-19 [12,13]. The search for vaccines and remedial agents against the contagion is underway in numerous corridors of the world [14-18]. Preventative measures have been encouraged by WHO as major ways of mollifying the outbreak [19]. Ethiopia reported the first case of COVID-19 on March 13, 2020 [20]. Since also, gradational proliferation in the number of cases has been reported by the ministry of health. Provision of community medicinal services is one of vital issues during COVID-19 epidemic in the world and specifically in Ethiopia. Clear patient education and counseling is essential to support proper drug use and help drug associated problems [21,22]. The community pharmacist is a drug expert who plays an important part in the provision of pharmaceutical care to ensure that drugs can be used effectively and safely.

Community pharmacists and their groups are usually easily accessible healthcare providers with an important part in primary care. During the COVID-19 epidemic, in most countries the community pharmacist is considered to be an essential profession. Pharmacists and their teams are in the frontline maintaining the supply of medications to patients and providing essential counseling and information. Still, as a consequence of the COVID-19 epidemic, (pharmaceutical) care and specific communication between patients and healthcare providers has changed. As a result of government guidelines, which apply social distancing and advice vulnerable people with health issues to stay at home, there's lower (direct) contact between patients and healthcare providers [23,24]. This has an impact on some of the most crucial services provided by pharmacies in order to ensure the safe and effective use of medications.

Pharmacists like other health professionals, have been at the frontline of combating the disease and remained open, thus playing a significant part in minimizing or avoiding its community transmission. Pharmacists are presently involved not only in the provision of medication, COVID-19 prevention products, and medical equipment supplies, but also offering health information related to COVID-19 [25].

Considering their ease of access and availability as a first point of contact, pharmacists are involved in early detection,

referral and facilitation of enforcing various government measures aimed at precluding or decelerating down the spread of the infection, as well as aiding with raising community awareness, whilst continuing their operation of minor conditions with over the-counter products, promotion of medication adherence and furnishing home delivery services.

Experience from pharmacists in China also support the value of the above services and the pharmacists' role in the setting of the COVID-19 outbreak [26]. In low middle-income countries, like Ethiopia, medical services are under great pressure while responding to this epidemic. Along with other ways and responses in epidemic heads such as force of emergency specifics according to treatment guidelines and resolving medicine shortage, event-driven pharmaceutical care is also required in a tertiary care hospital pharmacy [27]. After the rapid fire transmission and influx of COVID-19 cases in Addis Ababa city, pharmacies have adopted the public guidelines and modified the conditioning to reduce human to human infections transmission. All the modifications in the pharmacy activities based on the theme to give event-driven pharmaceutical care with the least interaction and medication wastage by exposure to COVID-19 positive case areas [28-30]. In this study we evaluated the status of provisions of community pharmacy services during COVID-19 epidemic in Addis Ababa, Ethiopia.

Methodology

A descriptive cross-sectional study was conducted in Addis Ababa community pharmacies from June 28, 2021 to July 30, 2021. Before creating the questionnaire, we conducted a thorough review of the literature. Experts evaluated the final version of the questionnaire for validity. We changed the basic questionnaire after a preliminary survey to clarify several items and increase participant understanding.

The final questionnaire had seventeen items and fifteen sections. The first component included three questions about the participants' demographics, such as their age, gender, and level of education as pharmacists. The following fourteen sections each contained one question on patent management, pandemic understanding, accessibility, responsibilities, motivations, quality product offering, community satisfaction, and Covid 19 measures taken.

The responses of the participants were recorded using a percentage scale. Agree/disagree (strongly disagree, disagree, neutral, agree, strongly agree), good/poor (excellent, very good, good, poor), and yes/no questions were all measured on a percentage basis in this scale. Each

community pharmacy received a total of 360 questionnaires, however only 290 people responded and returned the questionnaires to us. SPSS version 20 was used to do descriptive statistical analysis in order to portray data as percentages. Statistical significance was defined as a P value of less than 0.05. Around 36.9% of respondents were female, 60% of respondents are between the ages of 20 and 30, 72.1 percent have a bachelor's degree, 4.8 percent have a master's degree, and the remaining 23.1 percent have a diploma.

The Rift Valley University, Abichu Campus, Research and Publication office evaluated and approved an informed consent form and other research related documentation before the study began [Ref. No. RVUA/168/06/2021]. Participants were given a detailed explanation of the study's goal and protocol, and signed agreement was obtained prior to the start of the investigation.

Result and Discussion

This chapter discussed the primary data analyses obtained through questionnaires that in corporate background of respondent list of items under the supervision community pharmacy services in Addis Ababa during the pandemic. Methods used to analyze the collected primary data, we used percentage and table to analyses the data. The research finding was based on primary source of data. For this reason, we distributed 14 questionnaires to 360 respondents out of these, 290 respondents were filled the questionnaires and have returned for the investigators. From the total respondents, 183(63.1) % of the respondent were males and the remaining 107(36.9) % of the respondent were females (Table 1). These indicate that both genders were participated in community pharmacy services in Addis Ababa during the pandemic.

No.	Description	Option	Responded in	
			No	Percentage (%)
1	Sex	Male	183	63.1
		Female	107	36.9
		Total	290	100
2	Age	20-30	174	60
		31-40	76	26.2
		41-50	40	13.8
		51 and above	-	-
3	Level of education	12 th complete	-	-
		Diploma	67	23.1
		Degree	209	72.1
		Master	14	4.8
		Master and above	-	-

Table 1: General Information of Respondents.

As it was seen from the Table 1, from the total respondents 174(60%) were in the age range between 20 and 30 years, indicating that currently the community pharmacy services are selecting most young sale pharmacists for the purpose of fast and active services in order to satisfy the community and to achieve the goal of the community pharmacy in order to reduces the wide spreads of COVID-19. And the remaining 76 (26.2%) and 40(13.8%) respondents were between 31-40 and 41-50 years respectively.

Therefore, from this it can be understood that most of the respondents were in the active and productive ages. In addition to this the respondent requested to indicate their level of education, 67(23.1%) of respondents were diploma holders, 209(72.1%) of the respondent were degree holders and 14(4.8%) respondents were master holders. From this we recognize that the majority of the respondents for our

research work were degree holders. From these one we can understand the organization has a good level of education. Based on the education level most of the pharmacists are considered as well qualified for giving good services to the community.

Table 2 shows that the personnel of the community pharmacy have been treating their community equitably in order to combat the pandemic disease's global spread. As a result, 35(12%) of respondents disagreed that they treated the community fairly. In contrast, the majority of the 236 respondents (81.4%) felt that they treat the community fairly. In addition, 19 people (6.6 percent) said they strongly agreed with the viewpoint. Table 2 shows that the majority of respondents agreed with the assertion that community pharmacy services in Addis Ababa were treated equally during the epidemic.

No.	Question	Response	Number of Respondents	Percentage (%)
1	Do you feel that the pharmacists treating the community equally during COVID-19?	Strongly disagree	-	-
		Disagree	35	12
		Neutral	-	-
		Agree	236	81.4
		Strongly agree	19	6.6
		Total	290	100%

Table 2: Community response on Pharmacist's treatment during pandemics.

As shown in Table 3, about 15 (5.2%) of total respondents' dispute that there is a lack of understanding regarding COVID-19, while 38 (13 percent) said that they are neutral. However, the majority of respondents 222(76.6%) agreed and 15(5.2%) strongly agreed that community pharmacists have sufficient knowledge of the pandemic disease. These outcomes lead to community pharmacy services, which aid in the presentation of the disease as well as awareness of the surrounding community. As a result, if pharmacists have a solid understanding of the pandemic, the disease's

transmission will be slowed and community awareness will increase. Table 4 shows that out of the total number of responders, 145 (50%) disagreed, 88 (30.3%) agreed, and 57 (19.7%) strongly agreed. According to the majority of respondents, pharmacists do not develop community understanding due to a lack of desire, a lack of accepting responsibility, and other issues such as the health sector, pharmacists' performance in combatting the pandemic is poor.

No	Question	Response	Number of Respondents	Percentage (%)
1	Do the pharmacy workers have enough understanding about COVID-19?	Strongly disagree	-	-
		Disagree	15	5.2
		Neutral	38	13
		Agree	222	76.6
		Strongly agree	15	5.2
		Total	290	100

Table 3: Pharmacists understanding about COVID-19 pandemic.

No	Questions	Description	Number of Respondents	Percentage (%)
1	Do you think that the pharmacy workers create understanding to the community regarding to COVID-19?	Strongly disagree	-	-
		Disagree	145	50
		Neutral	-	-
		Agree	88	30.3
		Strongly agree	57	19.7
		Total	290	100%

Table 4: Creating understanding to the community during the pandemics.

As a result, the researcher thinks that if pharmacists effectively carry out their responsibilities, the pandemic's battling level will increase by some extents. From the total number of replies, 128 (44.1%) disagree, while the remainder 69 (23.8%) agree and 93 (32.1%) strongly agree. It appears that the majority of responses disagree, implying

that community pharmacy services in Addis Ababa are unavailable to the public during the pandemic. This causes the pharmacy to be inaccessible, which supports the spread of the epidemic. In general, the community is unable to stop the pandemic disease due to the lack of access to community pharmacies (Table 5).

No	Question	Response	Number of Respondents	Percentage (%)
1	Does the community pharmacy accessible to the community of Addis Ababa during COVID-19?	Strongly disagree	-	-
		Disagree	128	44.1
		Neutral	-	-
		Agree	69	23.8
		Strongly agree	93	32.1
		Total	290	100%

Table 5: Accessibility of pharmacy during the pandemics.

As shown in Table 6, the majority of the respondents 129(44.5%) believe that the industry does not deliver quality services to the community during the pandemic. However, the remaining 38 (13.1%), 40 (13.8%), and 83 (28.13%) respondents responded with exceptional, very good, and good, respectively. These findings suggest that the industry is failing to provide high-quality services to the public during the pandemic. As a result, we can see that the overall quality

of community pharmacy service provision in Addis Ababa did not meet its target during the pandemic. The respondent seeks to know the amount of any measurement performed by industries to deliver excellent services, as illustrated in Table 7 above. The majority of the respondents 186(64.1%) said that the situation is unsatisfactory, and that pharmacists are not taking any action to advance one level in the prevention of COVID-19.

No	Description of Item	Response	Respondent	
1	Does the industry provide quality services to the community during the pandemic?		No	Percentage (%)
		Excellent	38	13.1
		Very Good	40	13.8
		Good	83	28.6
		Poor	129	44.5
		Total	290	100

Table 6: Industries quality service during the pandemics.

No	Description	Option	Respondent in	
			No	Percentage (%)
1	Do you think that the industry taken any measurements to provide quality services?	Excellent	-	-
		Very good	37	12.8
		Good	67	23.1
		Poor	186	64.1
		Total	290	100

Table 7: Measurements taken to provide quality services.

The remaining 67 (23.1%) and 37 (12.8%) respondents said good and very good, respectively. Internal and external factors are the primary impediments to any measurement. As a result, the community pharmacy must be taking some precautions to prevent the spread of the pandemic. Table 8 shows that 92 (31.7%) of the total respondents replied yes, while 198 (68.3%) said no. Many people, though, answered no. The majority of respondents expressed dissatisfaction with community pharmacy services as a result of pharmacists' inaction. Because they are afraid about the pandemic, the

residents of the neighborhood require extra services from the community pharmacy. As shown in Table 9, 139 (47.9%) of the total respondents agree, 98(33.8%) disagree, and the remaining 53 (18.3%) strongly disagree. We can see from the table 9 that the community pharmacy in Addis Ababa did not deliver efficient and effective services to the community during the pandemic. As a result, we may conclude that the community pharmacy as a whole must provide efficient and effective services to the public.

No	Description of Item	Option	Respondent	
			No	Percentage (%)
1	Is the community satisfied with the provision of community pharmacy services?	Yes	92	31.7
		No	198	68.3
		I do not know	-	-
		Total	290	100

Table 8: Community satisfaction by the service of provision.

No.	Description of Item	Response	Respondent	
			No	Percentage (%)
1	Do you believe that the community pharmacy provides their services to the community efficiently and effectively?	Strongly agree	-	-
		Agree	139	47.9
		Disagree	98	33.8
		Strongly disagree	53	18.3
		Total	290	100

Table 9: Efficient and effectiveness of the services.

From the total number of responses in Table 10, 88 (30.3%) said they agree, and 60 (20.7%) said they strongly agree. In contrast, the majority of respondents 142(49%) disagree that the pharmacist's performance falls short of expectations. Measurement instruments are ineffective and inefficient. Because this so many people in the community are infected with COVID-19, the pandemic spreads faster.

Table 11 shows that 86(29.7%) of respondents disagree with the purpose for providing vaccine to the community, whereas only 50(17.2%) of respondents agree with the motivation for (providing vaccination to the community. However, the majority of responders 154(53.1%) said they had made no decision about whether or not to give COVID-19 vaccine.

No	Question	Response	Number of Respondents	Percentage (%)
1	Do the pharmacists perform their responsibility to combating the pandemic?	Strongly disagree	-	-
		Disagree	142	49
		Neutral	-	-
		Agree	88	30.3
		Strongly agree	60	20.7
		Total	290	100%

Table 10: Responsibility of Pharmacists to combat the pandemic.

No.	Question	Response	Number of Respondents	Percentage (%)
1	Do you feel that the pharmacists take motivation to the community to give COVID-19 vaccination?	Strongly disagree	-	-
		Disagree	86	29.7
		Neutral	154	53.1
		Agree	50	17.2
		Strongly agree	-	-
		Total	290	100%

Table 11: Motivation to gives COVID-19 vaccination.

Table 12 shows that the majority of respondents 151(52.1%) disagree that community pharmacies do not

take urgent action to control the pandemic's wide spread. In contrast, 98(33.8%) and 41(14.1%) of

No.	Question	Response	Number of Respondents	Percentage%
1	Do you believe the community pharmacy took immediate measures to stem the pandemic's spread?	Strongly disagree	-	-
		Disagree	151	52.1
		Neutral	-	-
		Agree	98	33.8
		Strongly agree	41	14.1
		Total	290	100%

Table 12: Actions of Pharmacists to controls the spread of the pandemic.

respondents agreed or strongly agreed that community pharmacy services took prompt action to control the pandemic's global spread. So, based on this knowledge, we may conclude that a strong commitment to taking prompt action is required to control the pandemic's wide spread and, as a result, we can save our community's treasured and costly life. According to Table 13, out of the total respondents, 89 (30.7%) disputes that pharmacy employees in Addis Ababa

were not treated psychologically throughout the epidemic. However, the majority of respondents (69.3%) agreed that the majority of community pharmacists supported the infected person mentally and psychologically. In light of the pandemic threat, we may conclude that community pharmacists provided enough psychological support and therapy.

No.	Question	Response	Number of Respondents	Percentage (%)
1	Do the employees of the community pharmacy provide psychological support to the victims?	Strongly disagree	-	-
		Disagree	89	30.7
		Neutral	-	-
		agree	201	69.3
		Strongly agree	-	-
		Total	290	100%

Table 13: Pharmacist's role in providing psychological treatment for victims.

Table 14 reveals that out of the total number of respondents, around 77 (26.6 percent) said yes, the community pharmacy employee engages in unethical activity owing to a variety of circumstances. However, the majority of respondents (213, or 73.4 percent) of community pharmacy employees behave professionally in public. Then

we can deduce that certain community pharmacies engaged in unethical activities in order to make a profit rather than serve the community during these bad times. There were a variety of reasons, whether internal or external. During the pandemic, however, the majority of community pharmacists acted professionally.

No.	Question	Response	Number of Respondents	Percentage (%)
1	Does the employee of community pharmacy show unwanted behaviors regarding to COVID-19 for the community?	Yes	77	26.6
		No	213	73.4
		Total	290	100

Table 14: The behavior of the pharmacists and smooth flow of sales.

Table 15 shows that out of the total number of respondents, 38 (13.1%) said it is very good that strong preventative techniques are being implemented in

community pharmacy services, and 76 (26.2%) said it is good that strong preventive methods are being used. The remaining 176 (60.7%) respondents said that there are no

strong preventive procedures in place to manage COVID-19, which is a bad response. As a result, we can deduce that community pharmacy services did not employ strong community prevention approaches. As a result, if significant

preventive measures are implemented in community pharmacies, the rate of spread may be lowered by several percentage points.

No.	Question	Response	Number of Respondents	Percentage (%)
1	Do you think that the community pharmacy services implement strong preventive methods to the community?	Excellent	-	-
		Very good	38	13.1
		Good	76	26.2
		poor	176	60.7
		Very poor	-	-
		Total	200	100%

Table 15: Implementation of preventive methods to the community.

Conclusion

This study was conducted on provision community pharmacy services during the pandemic in Addis Ababa. The outcomes of the study show that during the pandemic, the community pharmacy provided poor pharmaceutical services. Some of the limitations that we observed from the study is; the absence of motivation of the community pharmacy to give COVID-19 vaccination to the community, poor awareness of the community which leads to the wide spread of the pandemic, some pharmacists did not carry out their responsibility to combat the pandemic and were seeking the profit by using COVID-19 as a good opportunity, the accessibility of community pharmacy is not match as the number of populations in the city, there is some unequal treatments between the community, some community pharmacies are requested high price.

To the pre-preventive materials which leads to inclined benefits to the communities who are financially strong. All these key factors result in scarification of many peoples and causes reduction in national economy during the pandemic. Thus, the communities were not satisfied by the services of the community pharmacy. Due to this analysis, we can conclude that the community pharmacy services are under expected during the pandemic (COVID-19) in Addis Ababa.

Recommendation

Depending up on the finding of the study, we would like to recommend the community pharmacies;

- To provide enormous attention for the quality of services to the community
- To warn their pharmacists to be loyal to their profession and respects ethics
- To give efficient and effective services to the community
- To use performance measurement to identify the

capacity the pharmacists

- To give continuous learning and training their pharmacists
- To create good relationship between the community and their pharmacists
- To implement strong preventive methods to the community
- To employ more educated pharmacists
- To have strong commitments to provide COVID-19 vaccination

Declarations

Ethical Consideration

Prior to data collection, a formal letter was written from Rift Valley University, Abichu Campus, Research and Publication office [Ref. No. RVUA/168/06/2021] for community pharmacies to get permission to conduct the study.

Consent for Publication

Not applicable.

Availability of Data and Materials

All the data that support the findings of our study are available at Rift Valley University but restrictions apply to the availability of these data, which were used only for the current study, and so are not publicly available. Data are however available from the authors upon reasonable request and with permission of the University.

Competing Interests

The authors declare that they have no competing interests

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