



RESEARCH ARTICLE

How medicines sales staff is responding to presumptive COVID-19 patients attending drug retail outlets: An exploratory qualitative study

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[Correction added on 17 August 2021, after first online publication: Fourth author's last name has been corrected in this version.]

Abstract

The objective of this qualitative study was to explore how the medicine sales staff responded to presumptive COVID-19 patients in Pakistan. The data were obtained from the medicine sales staff working at drug retail outlets of Bahawalpur, Punjab, Pakistan, through in-depth face-to-face interviews using a semi-structured interview guide. A two-step sampling strategy was used, including purposive and convenient sampling techniques. Sample size was determined by applying the saturation point criteria. A total of 17 interviews were audio-recorded, transcribed verbatim and analysed using the thematic analysis. Analysis of data yielded six themes and seven sub-themes. The themes included (1) knowledge about various aspects of COVID-19, (2) practices of sales staff in response to COVID-19 pandemic, (3) attitude of sales staff towards COVID-19 pandemic, (4) services offered to presumptive COVID-19 patients, (5) challenges encountered during pandemic and (6) suggestions to improve delivery of pharmacy services by sales staff. In Pakistan, non-pharmacist sales staff had superficial knowledge about COVID-19. Presumptive COVID-19 patients were provided with only basic pharmacy services. Professional training is advised among pharmacy sales staff as a short-term solution to improve their knowledge. As a long-term goal, the availability of pharmacists at drug retail outlets is warranted.

KEYWORDS

community pharmacies, COVID-19, drug retail outlets, Drug Regulatory Authority of Pakistan, medicines sales staff, pharmacy services

1 | INTRODUCTION

Coronavirus disease 2019 (COVID-19), first spilled in Wuhan, China, has wreaked havoc across the globe.¹ The public health crisis has buckled the healthcare systems by exaggerating the deficiencies in the infrastructure, and humanistic and monetary resources.^{2,3} As a result, nations have faced difficulties in implementing required strategies to offset the appalling increase in COVID-19 cases.^{4,5} To cope with the crisis, many developed countries, such as Canada, China, the United Kingdom, Australia and the United States have allowed non-pharmacist pharmacy workers to deliver additional duties under the supervision of pharmacists to meet the basic healthcare needs of population.⁵⁻¹⁰ These additional roles include compounding authorizations, therapeutic substitution, clinical consultation, sharing of pertinent drug and COVID-19-related information, appropriate triaging, medicine refill, tele pharmacy and home-based services, etc.^{3,5} Nevertheless, in low- and middle-income countries (LMICs), where pharmacies are run by non-qualified and untrained non-pharmacist pharmacy workers,¹¹⁻¹⁴ the provision of extended pharmacy services has been challenging. In fact, the quality of even basic pharmacy services is questionable and risk prone in the midst of COVID-19.^{5,15}

Pakistan, an LMIC, has grappled with assorted health-related issues in recent decades.^{2,4,16} Since February 2020, COVID-19 outbreak has put a huge pressure on the country's healthcare system and has exacerbated the economic burden.² Currently, Pakistan—with more than 978,847 cases and 22,642 deaths as of 14 July, 2021—is the eighth worst COVID-19-affected nations among Asian countries.¹⁷ Given the particularities of our nation, delivering quality healthcare services during public health crisis is undeniably a huge challenge.² The COVID-19-driven exaggerated shortage of healthcare workforce (1 physician per 963 persons and 1.6 pharmacists per 10,000 person population), poor healthcare infrastructure and other organizational and regulatory voids have hampered the delivery of healthcare services.^{2,18} Whilst a range of intertwined community related demurrals (i.e., poverty [25%], majority rural population [63%], poor hygiene practices, poor health literacy and large number of co-morbid elderly population) contribute to public-level healthcare negligence and difficulties in taking standard preventive measures and treatment adherence against COVID-19.²

Recognizing the foregoing challenges, the Pakistani government opted for social distancing and preventive protocols to limit the spread of virus through full lockdown.² However, the drug retail outlets were left open, and the only easily accessible to meet the healthcare-related needs of the population.⁵ Therefore, terrified by the risk of catching COVID-19 from hospitals, the Pakistani population, including presumptive COVID-19 patients, rushed to pharmacies and medical stores in search of medication, consultation and COVID-19 preventative products. Despite being overburdened and at high risk of exposure to infection, drug retail outlets have been operating nationwide round the clock to tide over the swath of issues concerning access to essential healthcare services and medication.⁵ However, a range of long-standing intertwined reasons have precluded pharmacy services from facilitating public and healthcare system in comparison to international standards.⁵ Among many reasons, the most prominent one is the fact that sales staff working in these settings have little to no pharmacy/medical education and training.¹⁹⁻²² A number of previous studies from Pakistan have highlighted that the quality of even core services, such as counselling, dispensing, prescription validation and drug verification, etc., was not up-to the mark.^{5,11,19-23} Therefore, to mitigate mounting list of threats to the appropriate use of medicines and medication-related practices,^{20,21,23-28} these studies have stressed strict enforcement of the Pharmacy Act 1967 of Pakistan, according to which drug retail outlets are bound to assure the availability of pharmacist.

There is prevailing impression that the progression of COVID-19 will involve consecutive 'waves' or cycles of severe infection accompanied by phases of troughs.^{29,30} Taking this into account, nations around the globe are training

sales staff, revamping pharmaceutical policies and initiating reimbursement schemes for pharmacies.⁶⁻¹⁰ However, no efforts to reinforce these services by Pakistani regulators have been observed so far, which is probably due to limited resources together with scarcity of evidence.⁵ Therefore, we undertook this qualitative study to produce early data on how medicines sales staff responded to presumptive COVID-19 patients attending drug retail outlets. It is hoped that the insight obtained from the views of sales staff would aid healthcare authorities in forward planning and restructuring of existing pharmaceutical policies.

2 | METHODS

2.1 | Study setting

The study was conducted at the drug retail outlets of Bahawalpur district of the Punjab province of Pakistan. There are more than 500 drug retail outlets (medical stores and community pharmacies) located in different areas of the Bahawalpur city. Some pharmacies of Bahawalpur are providing the services of community pharmacists to patients whereby most of the drug retail outlets of Bahawalpur are supervised by non-pharmacist pharmacy workers.⁴ In Pakistani context, non-pharmacist pharmacy workers include pharmacy technicians holding 2-year Diploma in Pharmacy as well as those having no formal medical education.^{4,5,20,25,31} Individuals with no formal medical education learn at their workplace through experience and supervision of seniors. Community pharmacists are the individuals who have 5-year Pharm-D degree (previously 4-year B.Pharm degree programme) recognized by the Pakistan Pharmacy Council of Pakistan. Such graduates are registered as pharmacists in the 'Register A' (Category A licence).¹⁸ On the other hand, the individuals who hold 2-year Diploma in Pharmacy are registered in the 'Register B' (Category B licence), and are allowed to work in the hospitals and community/retail settings.¹⁸ They are mostly involved in assembling prescriptions and dispensing of medicines.

2.2 | Study design

By using the qualitative exploratory study design, in-depth, face-to-face interviews were conducted with the medicines sales staff (non-pharmacist) using a semi-structured interview guide. It is evident from the literature that exploratory qualitative research can help understand any phenomena in detail, about which little or no information has previously been gathered.^{32,33} Therefore, this study design was adopted to provide a starting point for the future multidimensional surveys. The Consolidated Criteria for Reporting Qualitative Research (COREQ) 32-item checklist³⁴ was followed to present the findings of this study (Supporting Information S1).

2.3 | Development of interview guide

The interview guide was designed through a comprehensive review of literature to address the research questions effectively.^{20,35,36} Two pilot interviews were conducted to test the interview guide in terms of understandability, content uniformity and face validity. Subsequently, modifications were made in the interview guide on the basis of pilot interviews. Data collected through pilot interviews were not included in the final analysis. Broadly, final interview guide included questions targeting 'what sales staff know about the pandemic?', 'how they deal with presumptive COVID-19 patients?' and 'what issues do they face while delivering services?'

2.4 | Recruitment of the participants and data collection process

The study participants were recruited by using a two-step procedure, including purposive and convenient sampling. Purposive sampling is a well-known technique to ensure the transferability of the study.³⁷ A list of drug retail outlets was prepared from where the availability of relevant reliable data and positive response can be expected. As explained earlier, the majority of the drug retail outlets in Pakistan is run by non-pharmacist pharmacy workers, including pharmacy technicians and personnel having no formal medical education. Therefore, a mix of non-pharmacist pharmacy workers were enlisted to depict true scenario amid COVID-19 and ensure generalizability of the study. Thereafter, using a convenient sampling, the target participants were approached and selected on the basis of their availability and willingness to participate in study.³⁸ To assure the reliability and competence of the informants and ultimately the trustworthiness of the data gathered, the medicines sales staff having ≥ 18 years of age and those having minimum 1 year of work experience in the relevant field was included in the study. Credibility was ensured through prolonged (more than a year) engagement of the data collector (MAh) in the relevant research field.³⁷

The data were collected from June to July 2020. For the sake of data collection, the objectives of the study were explained to the participants, and then those who agreed to participate in the study were face-to-face interviewed at a time and place convenient to them. At the start of every interview, informed verbal consent was obtained and audio recorded. Before commencement of each interview, demographic data of each participant were recorded which included, age, gender, qualifications and working experience.³⁹ Sample size was determined by applying the saturation point criteria.

2.5 | Data analysis

All the interviews were conducted in Urdu, the national language of Pakistan (MAh). To analyse data, all the audio-recorded interviews were transcribed verbatim and translated into English. Thematic analysis method was employed to analyse the data. In general, there are six phases of the thematic analysis which includes familiarization with the data, generation of initial codes, searching for emerging themes, reviewing the emerged themes, naming the themes and fabricating the report.⁴⁰ In this study, all of these steps were practised to analyse data (IM, Meh, MAh). Initial coding was accompanied by focused coding. Code–recode strategy was used to enhance the dependability of the study.³⁷ Reliability of analysis was also secured by checking transcripts for any transcription mistakes. Final codes were clustered into categories (MA). In order to conceptualize the data, themes and sub-themes were generated by bringing several categories together (IM, Meh). The emerging themes were then critically analysed through discussions with senior authors (MAT, IMU, NA, ZB), who are expert in qualitative analysis, at regular intervals to harmonize the meanings of every theme and to ensure that the results reflect the aim and objectives of the study.

2.6 | Ethical approval

The study gained approval from the Pharmacy Research Ethics Committee (PREC) at the Islamia University of Bahawalpur (Ref.no.105-2020-/PREC) dated 8 July 2020. The objectives of the study were explained to the respondents before the commencement of each interview. Informed verbal consent was obtained from each participant at the start of the interview and was audio-recorded. The PREC approved verbal audio-recorded interview procedure. Confidentiality of each participant was assured in terms of not disclosing the name and identification of any participant in the study. A unique identification number was assigned to each participant (Respondent A, B, C, etc.). The participants had the right to skip any question from the interview and they were freed to leave the study at any time without any further query.

3 | RESULTS

A total of 17 in-depth face-to-face interviews were conducted with the sales staff. The overall response rate in the study was 77% (17 out of 22). Five eligible participants were not willing to take part due to some reasons (e.g., busy work schedule, scared of being infected, etc.). The duration of each interview ranged from 30 to 40 min, with a mean time of 33 min. The participants' characteristics and duration of each interview are presented in Table 1.

Thematic analysis of the data yielded six themes and seven sub-themes, which described the experience and response of sales staff during the COVID-19 pandemic. The main emerging themes included (1) knowledge about various aspects of COVID-19, (2) practices of sales staff in response to COVID-19 pandemic, (3) attitude of sales staff towards COVID-19 pandemic, (4) services offered to presumptive COVID-19 patients, (5) challenges encountered during pandemic and (6) suggestions to improve delivery of pharmacy services by sales staff. Emerging themes, sub-themes and rich exemplar quotations are outlined in Table 2. Additional exemplar quotations are also provided in Supporting Information S2 to represent the confirmability of the study.

3.1 | Theme 1: knowledge and awareness about COVID-19

All the respondents, although were aware of the term 'COVID-19', their knowledge about details varied. More than half of the respondents (11 out of 17) had better awareness about basic aspects of the pandemic, such as COVID-19 is a viral infection, emanated from China, no first-line treatment exists. When asked about the signs and symptoms of COVID-19, seven respondents stated that these are the same as that of common cold and flu, except in the case of COVID-19, the intensity of these symptoms is high. Whilst, only four respondents were able to differentiate between symptoms of COVID-19 and routine cough and flu. Regarding presumptive COVID-19 patients, only five respondents explained them as a patient having visible signs and symptoms of COVID-19, such as cough, fever, and sore throat. Alternatively, three other participants declared that standard testing is mandatory before classifying a patient as COVID-19 presumptive case. With regard to asymptomatic carriers of COVID-19, respondents appeared to lack awareness. Upon asking about infection prevention protocols, it was revealed that nine respondents were well aware and had knowledge about basic items used for the protection. Further, it was revealed by 10 informants that they have no knowledge about the safety guidelines specified for the drug retail outlets and received no document detailing specified guidelines for the safety of pharmacy teams. In the same way, nine respondents had no idea about helplines and departments specified for the management of COVID-19 patients.

3.2 | Theme 2: attitude of sales staff towards presumptive COVID-19 patients

Regarding risk perception attitude, more than half of the respondents had strong feelings of fear of COVID-19 and had serious concerns about their health. Five respondents explained that their fearful attitude is attributable to no specific treatment and a lot of uncertainty. While six participants were more conscious about their family and were more fearful of being infected and thus becoming the source of transmission of this virus to their loved ones. On the other hand, six respondents did not express any fear of COVID-19 and took preventive measures only for the sake of official requirements.

Regarding opportunity perception attitude, although majority of the medicine sales staff considered themselves a credible source of healthcare services in the midst of COVID-19, only four participants declared the pandemic an opportunity to improve their learning and eventually become a competent healthcare provider, if strengthened by training.

TABLE 1 Characteristics of the study participants

Respondents	Gender	Age (years)	Qualification	Duration ^a (Min)
A	Male	32	Primary	33
B	Male	35	Primary	32
C	Male	20	Matric	31
D	Male	35	FSC	36
E	Male	28	Matric	40
F	Male	38	Primary	34
G	Male	24	Matric	33
H	Male	36	Graduation	31
I	Male	20	Graduation	32
J	Male	30	Graduation	33
K	Male	30	Primary	32
L	Male	22	Graduation	30
M	Male	21	FSC	29
N	Male	21	Matric	33
O	Male	35	Graduation	35
P	Male	28	Matric	34
Q	Male	45	Graduation	34
Mean duration				33 min (SD = 2.5)

^aRounded.

3.3 | Theme 3: practices of sales staff in response to COVID-19 pandemic

Fifteen respondents, when asked about the adoption of precautionary measures, reported that they did take basic precautionary measures to protect themselves from this infection. These measures included the use of face mask and hand hygiene. It was worth mentioning that all the respondents reported follow-up of social distancing protocols to protect staff and customers from this viral infection.

With regard to COVID-19-related information-seeking practices, nine participants responded positively, and to keep themselves up-to-date, they reportedly used different sources, such as social media, Internet, television and leaflets. Despite being curious about the emerging facts, eight respondents stated that fake news had caused discomfort. Whereas, six respondents expressed no particular interest in getting COVID-19 updates, because they thought listening about deaths from COVID-19 would make them stressed, and this would impact their work.

3.4 | Theme 4: services offered to presumptive COVID-19 patients

According to the results of this study, majority of the sales staff (15 out of 17) had dealt with presumptive patients having symptoms of cough, flu and fever. Among these, six respondents said that they had provided the symptomatic treatment like antibiotics and Panadol tablets just for the relief of symptoms. Moreover, patient education and consultation focused on strategies for prevention and control of spread of COVID-19 was also being delivered by the sales staff. Four out of 17 respondents explained that they referred such presumptive patients to pharmacist for further consultation as a community pharmacist was available at their pharmacy for patient counselling. Whereas, five respondents showed their preference in sending presumptive patients to hospital for screening of COVID-19.

TABLE 2 Themes, sub-themes and exemplar quotations

Themes	Subthemes	Categories	Quotations	
Knowledge about various aspects of COVID-19	Knowledge about COVID-19	• Adequate basic awareness about COVID-19	'It is a worldwide pandemic which originated in China and is now spreading across many countries and there is no medicine to cure it.' (Respondent F)	
		• Little knowledge about signs and symptoms	'As far as I am aware, its symptoms are the same as that of common cold and flu in which weakness or fatigue is experienced by a patient.' (Respondent C)	
		• Unable to differentiate between COVID-19 and common cold	'Initially, a patient developed the symptoms of sore throat and high-grade fever. With the passage of time, he might lose his sense of smell and taste, experienced body aches and some digestive disorders.' (Respondent D)	
		• Considered it a complicated form of flu	'It is my first experience in whole carrier that people are taking medicines for sore throat and flu in June, but it did not happen before that. It is a severe form of flu.' (Respondent F)	
	Understanding about presumptive COVID-19 patients	• Patient with prominent signs and symptoms of flu and fever	'In my point of view, a presumptive patient is the one who has some symptoms that are prominent to observer. I can assess the patient condition from his symptoms.' (Respondent D)	
		• Patient with positive test report	'No patient should be considered as presumptive patient until the symptoms have developed and he has been found positive for COVID-19 infection. If I assume a patient as presumptive COVID-19 patient without investigation, it would be considered as an insult to the patient/customer.' (Respondent C)	
	Knowledge about preventive measures/ protocols			'First thing is to use face masks...' (Respondent H)
			• Basic awareness about prevention	'I think the person who uses face mask will be ninety five percent safe from the virus.' (Respondent I)
		• Lack of knowledge about safety guidelines specified for the drug retail outlets	'There are no specific government policies and procedures for pharmacies to deal with customers and I haven't received document or guidelines concerning safety of the pharmacy team.' (Respondent A)	
		• No knowledge about the authorities working against COVID-19	'No, I have no information about authorities that deal with COVID-19 patients and I have no information about helpline numbers helpful in case of emergency.' (Respondent H)	

(Continues)

TABLE 2 (Continued)

Themes	Subthemes	Categories	Quotations
Practices of sales staff in response to COVID-19 pandemic	Precautionary practices	<ul style="list-style-type: none"> • Keen to take precautionary measures 	'I am afraid of it, as I have seen a COVID-19 patient. During lockdown, I used face mask to protect myself and use sanitizer frequently. I avoid shaking my hands with costumers.' (Respondent E)
		<ul style="list-style-type: none"> • Satisfactory follow-up of basic personal precautionary practices, such as use of mask and hand hygiene 	
		Adequate follow-up of social distancing protocol	We have made our premises a safe place by marking the floorings to direct the patients towards physical distance.' (Respondent F)
		<ul style="list-style-type: none"> • Marked the floorings to maintain distance among customers 	'We have covered our counters with a plastic sheet from front side to attain better protection from presumptive patients. We have also implemented the policy of 'NO MASK, NO SERVICE' at our outlet.' (Respondent E)
	COVID-19-related information-seeking practices	<ul style="list-style-type: none"> • Covered counter to maintain distance between staff and customer 	
		<ul style="list-style-type: none"> • Interested in tracking daily updates about COVID-19 	'I started to become aware about COVID-19 from news, leaflets and banners displayed outsides of hospitals and pharmacies.' (Respondent D)
		<ul style="list-style-type: none"> • Daily update considered as the cause of depression among sales staff 	'Yes, I try to keep myself updated about the current situation of COVID-19, but at the same time fake news circulating on social media makes me irritated to some extent' (Respondent L) 'The news of deaths associated with COVID-19 makes me depressed. So, that's why I have no interest in exploring updates about COVID-19. If I become depressed, I will not be able to perform my duties in professional way.' (Respondent N)
Attitude of sales staff towards COVID-19 pandemic	Risk perception attitude	<ul style="list-style-type: none"> • Fear of no specific treatment 	'Yes, when I heard that a new virus had started to show signs and symptoms of pneumonia and there was no specific treatment for it, it was terrible for me, as my job is to deal with the public throughout the day. Everybody is confused and unsure of what will happen in the coming days.' (Respondent B)

TABLE 2 (Continued)

Themes	Subthemes	Categories	Quotations
		<ul style="list-style-type: none"> • Fear of being infected 	<p>'Till now I am worried about my family that God forbid a COVID-19 patient may come here today and infect me or make me a COVID-19 carrier for my family. That's why I am scared of shaking hands with customers these days.'</p> <p>(Respondent A)</p>
		<ul style="list-style-type: none"> • Worried about family 	
		<ul style="list-style-type: none"> • No fear 	<p>'No, I did not fear COVID-19, because I think it is a rumor. I used to shake hands with people as they had no objection.'</p> <p>(Respondent E)</p>
	Opportunity perception attitude	<ul style="list-style-type: none"> • Only few considered it a chance of professional growth 	<p>'This is an opportunity. People have started to recognize our potential more than ever before. We also should enhance our skills and learning with special emphases on knowledge about current pandemic. So that it can contribute to professional growth' (Respondent C)</p>
Services offered to presumptive COVID-19 patients		<ul style="list-style-type: none"> • Provided symptomatic treatment 	<p>'Not every patient with cough and flu symptoms is a patient of COVID-19. I would like to dispense him with antibiotics like "Azithromycin" and "Panadol" to relief his symptoms.'</p> <p>(Respondent M)</p>
		<ul style="list-style-type: none"> • Provided consultation and education about prevention and control of infection 	<p>'There a lot of psychological disturbance and panic in the population. We educate them that they will not catch infection if they follow the prevention protocols. We advise them to maintain social distancing and adopt frequent hand washing habits. We advise them not to go out in crowded places...we tell them there is no cure or vaccine against virus.' (Respondent P)</p>
		<ul style="list-style-type: none"> • Referred presumptive patients to pharmacist or hospital 	<p>'Because there is pharmacist at our outlet to serve the community. So, my first preference has always been to advise a patient to consult a pharmacist and seek better guidance regarding his condition.'</p> <p>(Respondent A)</p> <p>'My first priority is to refer patients to public hospital because all the essential facilities are readily available in hospitals for the proper management of COVID-19 patients. I referred couple of patients to the hospital.' (Respondent E)</p>

(Continues)

TABLE 2 (Continued)

Themes	Subthemes	Categories	Quotations
Challenges encountered during pandemic		<ul style="list-style-type: none"> • Transport issue due to restricted movement 	<p>'I use public transport to reach at job daily. Owing to lockdown it was difficult for me to travel daily. I borrowed a motorcycle from my friend for some days to go to job.' (Respondent J)</p>
		<ul style="list-style-type: none"> • Non-cooperative public behaviour 	<p>'The behaviour of public changed with us. They think that they are very likely to be infected as we have direct contact with many patients throughout the day.' (Respondent G)</p> <p>'Their behaviour sometimes makes me offended and I feel a little depressed and thought that all the preventive measures we followed were useless if we had to deal with such behaviour.' (Respondent H)</p> <p>'I offered face mask to one of the customers who had more prominent symptoms of cough, but he refused to take it. I think this non-serious behaviour is the key factor in the spread of this virus in our community and puts us at risk of infection.' (Respondent O)</p>
		<ul style="list-style-type: none"> • Lack of authentic information about emergency helplines, higher authorities, management of severe COVID-19 patients 	<p>'Almost all the staff members of this outlet, including me, have no information about emergency helpline numbers and departments dealing with severe COVID-19 patients. I don't have any idea how to deal with a patient having strong symptoms of COVID-19 if he visits us.'</p>
		<ul style="list-style-type: none"> • Lack of training 	<p>'There were no training sessions organized by the government authorities or by pharmacy management.' (Respondent K)</p>
		<ul style="list-style-type: none"> • Limited access to personal protective equipment 	<p>'As the prices of face masks have been increased, we have to use one mask for two weeks I am financially weak, I can't afford a new face mask every day. It is the duty of Government or Pharmacy management to provide us with face masks and sanitizers regularly.' (Respondent K)</p>
		<ul style="list-style-type: none"> • Difficulty in following precautionary protocols due to costly PPE, workload and allergy 	<p>'There is a continuous state of competition in the market to capture more customers, but they pay no attention to the safety and protection of staff members.' (Respondent P)</p> <p>'Sometimes it is more difficult for us to comply fully with all precautionary measures during peak hours. When there are a lot of patients and we have no time to adopt all the measures.' (Respondent O)</p>

TABLE 2 (Continued)

Themes	Subthemes	Categories	Quotations
			'It is more difficult for me to put on face mask and gloves all day as I become allergic to the fiber of the face mask.' (Respondent P)
Suggestions to improve delivery of pharmacy services by sales staff		<ul style="list-style-type: none"> • Dissemination of authentic information 	'In my opinion, sales staff should be properly trained about various aspects of COVID-19 because we have no authentic information, and to be honest, all the information we have about this is through the words of people who visit us.' (Respondent N)
		<ul style="list-style-type: none"> • Proper training sessions 	'In this situation of a public health crisis, we are the only professionals directly connected with the public. But we have received no support from government. Pharmacy owners cannot support us alone in terms of advance training and technology, financial aid and protective equipment. They cannot provide us with health insurance. All this can be done only by government and they should, as they are doing for doctors and nurses.' (Respondent L)
		<ul style="list-style-type: none"> • Governmental level support and facilitation 	

3.5 | Theme 5: challenges encountered during pandemic

Several challenges during the pandemic were reported by the respondents. Seven respondents found it more difficult to continue working in lockdown as they had to reach at job via public transport from nearby villages. Non-cooperative public behaviour as a difficulty in providing services and following preventive protocols was reported by five respondents. Other challenge highlighted by the respondents was lack of authentic information about various aspects, for example, emergency helplines, management of severe COVID-19 patients, etc. More than half of the informants (9 out of 17) whined that no training sessions were arranged about the changes in dealing practices during pandemic of COVID-19.

Many respondents (14 out of 17) highlighted that it was difficult for them to cope with the shortages and increased prices of protective items because of financial predicament. Ten out of 17 respondents complained that they were not provided with protective equipment by the pharmacy management. Upon further asking about the reasons for non-compliance to precautionary measures, the participants reported that they find it difficult because of increased workload, hectic routine (8 out of 17) and allergy to the mask (5 out of 17).

3.6 | Theme 6: suggestions to improve delivery of pharmacy services by sales staff

Among all the suggestions to improve the delivery of services, the most frequent was dissemination of authentic information about various aspects of COVID-19. Four respondents suggested that there should be proper training and awareness campaigns for the preparedness of future pandemics by the government and pharmacy management itself. More than half of the respondents (11 out of 17) reported that government needs to play a key role in order to facili-

tate staff working at the drug retail outlets. They declared pharmacy owners as handicapped in providing the level of support they need to serve in more effective way.

4 | DISCUSSION

COVID-19 is a global health challenge affecting all sectors, especially the healthcare workforce combating at the forefront.^{2,3,5} To our knowledge, this is the first qualitative study, not only from Pakistan but internationally, that has targeted the non-pharmacist sales staff dealing with presumptive COVID-19 patients in drug retail outlets. Six overarching themes that discerned from the data represented knowledge, attitude and practices in response to COVID-19 pandemic, services offered to presumptive COVID-19 patients, challenges encountered during pandemic and relevant suggestions.

The results of this preliminary study showed that the sales staff had only basic COVID-19-related awareness. Despite overwhelming reports on this global health emergency,⁴¹ it is concerning to find that participants had no sound knowledge about the signs and symptoms of infection and proper understanding of presumptive COVID-19 patients. This highlights arrangement of proper training sessions for pharmacy sales staff about various aspects of COVID-19, as evidenced in the United Kingdom.⁴² Moreover, based on the findings of a recent Pakistani study that pharmacists were more knowledgeable about COVID-19 as compared to even physicians and nurses,⁴³ it seems more prudent for Pakistani health regulators to ensure the availability of qualified pharmacist at drug retail outlets. There is evidence that sales staff working under the supervision of pharmacists have better medicine related knowledge and expertise due to better learning environment.⁴⁴ Moreover, study informants vividly described concerns pertaining to lack of knowledge about the safety protocols specified for the drug retail outlets, and authorities and emergency departments working against COVID-19. Although, the Drug Regulatory Authority of Pakistan (DRAP) has released guidelines pertaining to prevention protocols and defined the responsibilities of the staff working in pharmacies and medical stores,⁴⁵ but the study findings indicated that effective ways are urgently needed to disseminate both reliable information and guidance, and ensure proper interpretation by non-professional staff.²⁰

The findings of this study revealed that pharmacy sales staff had good COVID-19 prevention practices identical to findings by Hangoma et al.⁴⁶ The main stream of staff was following basic infection prevention and control practices recommended by the World Health Organization (WHO), such as use of face mask and regular hand hygiene practices. Nevertheless, none of the study participants reported use of eye-protective goggles, safety suits and foot wear. Surprisingly, social distancing via labelled floor was practised by all of them. Satisfactory maintenance of social distancing protocol might be due to fear of catching infection, pressure by the government authorities and awareness from media.⁴⁶ With regard to COVID-19-related information-seeking practices, it was identified in this study that about half of the participants had interest in tracking daily updates about COVID-19 from social media, Internet, television and leaflets. Though encouraging, there are concerns relating to misinterpretation of medical information by non-pharmacist pharmacy workers without basic medical education.²⁰

According to the results of this study, majority of the sales staff had dealt with presumptive patients. When asked about the services being delivered to presumptive COVID-19 patients in drug retail outlets, the informants in this study reported provision of symptomatic treatment and patient counselling and education about prevention and control of pandemic. The study findings are in line with what was anticipated. Nevertheless, no specific medication safety information was provided to the patients. This raises public health concerns given the well-known high prevalence of unnecessary purchase and use of medicines, especially antibiotics, self-medication and other risk-prone medication-related practices among the Pakistani population.² The reason behind this might be limited knowledge and expertise of sales staff, time shortage and intent of earning profit through increased sale of these medicines, etc.^{5,20,23,27} Captivatingly, the respondents showed their preference in sending presumptive patients to pharmacist and hospital for proper consultation and screening of COVID-19. To further foster this encouraging aspect, drug retail outlets can

be tied with the healthcare infrastructure that has been instigated to attend the presumptive COVID-19 cases. The same was proposed by Amariles et al.⁴⁷ in view of vulnerabilities in Colombian healthcare system.

Study respondents were asked if they encountered difficulties in providing or ensuring the quality of the pharmaceutical care service during COVID-19. They all asserted distinct challenges, including transport issues due to restricted movement, lack of access to authentic information, no training, limited access to personal protective equipment, difficulty in following precautionary protocols due to costly personal protective equipment, workload and allergy, and non-cooperative public behaviour. All these challenges to healthcare workforce in the midst of COVID-19 have been documented frequently in the international literature, particularly from resource deprived nations with strained healthcare system.^{5,15,29,30,46,48} To this end, Pakistani healthcare regulators need to act in tandem with developed countries^{3,6-10} and strive towards advanced trainings accompanied by financial support for pharmacy sales staff.⁵ Moreover, the government should intend to provide pharmacy staff with COVID-19 protection packs, as provided by the UK government.⁴⁹ Parallel to foregoing suggestions, the participants in this study called for dissemination of authentic information, proper training sessions, provision of personal protective equipment, and support and encouragement from government in order to prepare them for more effective response to the pandemic or any other civic health crisis in future.

4.1 | Limitations

This study offers a valuable reference point for discussion on planning for an unpredictable future. However, it has few limitations. First, informants were only recruited from one city and therefore study findings cannot be generalized to the whole of Pakistan. Second, no responses from rural areas of Bahawalpur were attained because rural areas were not easily accessible owing to the lockdown and restricted mobility amid pandemic. Third, the views of patients, pharmacists and pharmacy owners about the delivery of pharmacy services during the pandemic went uncaptured. Nevertheless, it is advocated that future research should involve other stakeholders and should target both urban and rural areas to better explore various other aspects, especially to better assess the quality of services delivered by the sales staff and report multi-targeted suggestions accordingly.

5 | CONCLUSION

The COVID-19 pandemic has highlighted various deficiencies in education and training of non-pharmacist medicine sales staff working at drug retail outlets in Pakistan. Overall, participants had superficial knowledge about various aspects of COVID-19. With regard to COVID-19 prevention practices, the main stream of staff was following basic infection prevention and control practices.

Medicines sales staff had interacted with the presumptive COVID-19 patients during the pandemic and offered only basic pharmacy services, such as provision of symptomatic treatment and COVID-19-related information. Nevertheless, they had encountered various challenges during the pandemic, broadly concerning training and difficulties in adopting safety measures. In order to respond more appropriately to the pandemic, participants emphasized proper training sessions, provision of personal protective equipment, and support and encouragement from the government.

5.1 | Impact of findings on policy and practice

- Apart from implications of this study to literature, the findings of this study are anticipated to influence practice and policy decisions relevant to waves or leaps in COVID-19 cases in the months or years ahead.

- As a short-term solution to improve knowledge, preventive practices and quality of pharmacy services amid pandemic, pharmacy sales staff can be equipped with necessary skills and knowledge through proper training sessions and access to clinical experts for consultation on daily basis. In addition, the government could announce reimbursement schemes on priority basis for non-pharmacist sales staff and provide them with free-of-cost COVID-19 preventive items in view of safety of both staff and costumers.
- In order to boost the contributions of community pharmacy services to fill the voids in the healthcare system in the long run, strict execution of the Pharmacy Act 1967 of Pakistan is highly warranted to ensure the presence of pharmacists at drug retail outlets, who play a key role in pharmaceutical care services. Further, quality research in this area should be encouraged to strengthen the evidences and inform policy decisions accordingly.

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ETHICS STATEMENT

The approval for the conduct of study was obtained by the Pharmacy Research Ethics Committee (PREC) at the Islamia University Bahawalpur (Ref.no.105-2020-/PREC) dated 8 July 2020.

DATA AVAILABILITY STATEMENT

The datasets used and analysed during the current study are available from the corresponding author on request.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

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