

Management of Human Resources in Community Pharmacies during the COVID-19 Public Health Emergency

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ABSTRACT

Background: Community pharmacies were among essential service businesses allowed to operate during the COVID-19 public health emergency. This study investigated human resources challenges in community pharmacies in southwestern Nigeria during the COVID-19 public health emergency and the strategies employed to manage them.

Methods: A mixed method approach was utilised for data collection in a descriptive cross-sectional study of 420 community pharmacies across Lagos, Oyo and Osun states in Southwestern Nigeria using a semi-structured pre-tested questionnaire (Cronbach $\alpha = 0.86$) exploring their human resources challenges experienced during the COVID-19 pandemic and strategies employed to manage them. Twenty-one community pharmacists were purposively sampled for the audio-recorded In-depth interviews using an interview guide. Ethical approval was obtained before commencing the study. Qualitative data were thematically analysed while the quantitative data were subjected to IBM® SPSS Version 25 software analysis.

Results: A total of 376 valid responses were obtained yielding 89.5% response rate of sampled community pharmacies located in urban (69.7%), peri-urban (25.5%), and rural (4.8%) areas of the study states. Categories of non-pharmacy staff reported by CPs included pharmacy managers (93.1%), health assistants (92.8%), cashiers (92.0%) and pharmacy technicians (80.1%). Challenges experienced by community pharmacy staff included difficulty in getting transportation to and from work (68.1%), fear of attending to clients (60.6%), and poor compliance of support staff to safety protocol (44%). Staff who were not pharmacists were harassed (43.5%) by security agents who did not recognise them as essential staff. Some measures to manage human resources challenges included change of work schedules (63.8%), issuing of identification cards (44.9%), car-pooling (32.2%), and provision of accommodation (12%). Interviewees' comments corroborating the findings include, "we had to provide accommodation for them", "It was not easy for staff to come to the office during the total lockdown, ...those who had cars picked up those who don't."

Conclusion: Community pharmacy staff experienced several challenges during the COVID-19 pandemic. The reported innovative strategies employed serve as lessons that can be adopted for managing the reported human resources challenges in any future pandemic to ensure continuity of service. Also, relevant security agents should be enlightened about the essential nature of the duties of community pharmacies support staff.

INTRODUCTION

Community pharmacies are privately-owned professional entrepreneurial establishments that deal directly with people in their immediate neighbourhoods in sales and dispensing of medicines, treatment of minor ailments and provision of pharmaceutical services^{1,2}. They thus ensure medicine security to people and provide primary healthcare to the populace³. Community pharmacies are adjudged to

be the closest health care service which people can easily access without difficulty and have an advantage of proximity and familiarity with community people who often come to access medication and care^{4,5,6}. They are managed by community pharmacists who superintends over the medicine logistics, procurement, sales and services to clients. In addition, other cadre of staff workers such as pharmacy technicians, pharmacy assistants, managerial,

accounting and administrative staff⁷, constitute the human resources of the community pharmacy of the community pharmacy lending their skills, experience and training to the achievement of the goals of the establishment^{8,9}.

Though human resources provide the greatest opportunity to secure a competitive edge over other community pharmacies¹⁰ or related businesses, it is often said to be the most difficult to manage among the factors of production. According to the International Federation of Pharmacists¹¹ commenting on the Ebola epidemic, they stated that during public health emergencies, community pharmacy staff among other challenges, were besotted with domestic issues such as home care for kids who are not in school due to closure of public places and others become caregivers for elderly dependents. During the COVID-19 pandemic, community pharmacies like other businesses experienced upheavals and disruption to services¹². It can be posited that in times of external challenges such as public health emergencies which causes upheavals to business operations, the commitment of staff to continue to provide services and to adapt to changing environmental contexts are key to making the pharmacy retain a competitive advantage over other community pharmacies in the same area^{13,14,15}. As there exists external challenging factors imposed by the COVID-19 pandemic, the pharmacy as an organization must be resilient to adapt to them.

This study objectivized the exploration of challenges experienced by community pharmacy staff during the period of the COVID-19 pandemic and identified the innovative solutions employed in resolving them for adoption as human resources management preparedness measures in any future public health emergency in Nigeria.

METHODS

A mixed method approach was utilized among a cross-section of community pharmacies sampled from Lagos, Oyo and Osun states in the southwestern geopolitical zone of Nigeria. The qualitative phase was exploratory in nature using a key-informant interview guide to investigate the experiences of managing community pharmacy human resources during the COVID-19 pandemic.

Sample size determination

In-depth Interviews: There is no uniform agreement on the sample size for single-interview-per-participant qualitative design research like in-depth interviews. Some qualitative researchers suggest 30 persons for in-depth interviews and allows a minimum size of 10 where there is high integrity of the population. This is in line with Morse's (2000) position that the more usable data are collected from a person, the fewer participants are needed taking into

account the scope of the study, the nature of the topic and the data quality. Community pharmacists are a unique and skilled healthcare professional group. They are exposed to community pharmacy management issues especially in the context of the COVID-19 pandemic about which they had first-hand experience on the impact on their pharmacy management. Hence, across the three study states, 25 interviews were initially planned only 21 could be conducted within the time frame of the partial lockdown periods and availability of community pharmacists. Eight interviews were conducted in Lagos, seven in Oyo and six in Osun states in pharmacies located in rural and urban settings.

Quantitative phase: The sample size of community pharmacists for the quantitative phase of the study was calculated using the Taro Yamane (1967) formula used for calculating sample size of a population of known size. From the PCN list of registered community pharmacies at the end of the year 2019, Lagos state had 2,017 registered community pharmacies, Osun had 115 and Oyo state had 220. Ondo State, selected for the pretesting of the quantitative data collection instrument had 84 pharmacies.

$$\text{Taro Yamane formula (1967): } n = \frac{N}{1+N(e)^2}$$

where, N = total number of registered Community Pharmacies in the 3 study states

$$N = 2017 (\text{Lagos}) + 115 (\text{Osun}) + 220 (\text{Oyo}) = 2,352,$$

e = the level of precision set at 0.05.

$$\text{Therefore, } n = \frac{2352}{1+2352(0.05)^2} = 341.86 \approx 342$$

To cater for non-responses and incompletely filled questionnaires, 10% of the calculated sample size was added. Therefore, total sample size = 342+34=376. Distribution of the calculated sample size was determined proportionate with each state's community pharmacy population size obtained from the PCN 2019 register:

$$\begin{aligned} \text{Lagos} &= \frac{2017 \times 376}{2352} \approx 323 \\ \text{Oyo} &= \frac{220 \times 376}{2352} \approx 35 \\ \text{Osun} &= \frac{115 \times 376}{2352} \approx 18 \end{aligned}$$

A total of 420 questionnaires were distributed in the three states with 37 returned unfilled, - one in Oyo state and the remaining 36 in Lagos state. The semi-structured questionnaire used for empirical data collection was pre-tested among community pharmacists in Ondo state with a Cronbach's α value of 0.86 obtained in the reliability test.

Data analysis: Transcripts from the audio-recorded

interviews were analysed to yield themes and constructs that recurred in the respondents' comments. The report was used in designing the questionnaire for the quantitative survey in the three study states among those who did not participate in the in-depth interviews. IBM® SPSS version 25 software was employed for the analysis of the quantitative data to yield descriptive statistics such as frequencies, mean mode and median. The report was triangulated with supporting comments from the interviewed respondents.

Ethical Approval for this study was obtained from the Institute of Public Health Research Ethics Committee, Institute of Public Health, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria with certificate number: IPH/OAU/12/1561. Informed consent was obtained before the interviews and administration of the study questionnaire to the sampled pharmacists. The process of data collection were done in full compliance with COVID-19 infection prevention protocols and travels to locations were done in private and hired vehicles only.

RESULTS

Distribution and characteristics of sampled community pharmacies

A total of 376 community pharmacists returned filled questionnaires that were considered valid for analysis yielding a response rate of 89.5% from the 420 community pharmacists administered the questionnaires. Their socio-demographic characteristics are presented in Table 1. More than half were males (61.1%); the mean age of respondents was 40.25 ± 11.62 years; most (77.1%) were within 1 to 10 years of practice clustering within the early career years bracket (1-8); and less than half (30.3%) were the owners of the pharmacy. Table 2 presents the distribution and characteristics of the community pharmacists that participated as respondents in the study. The community pharmacies included retailing (69.0%), wholesaling (11.6%), and combined wholesale and retailing (19.4%) outlets spread across urban (69.7%), peri-urban (25.5%), and rural (4.8%) locations.

Table 1: Socio-demographic characteristics of community pharmacists

Variables		Frequency	Percentage
Sex (n=376)	Male	229	61.1
	Female	147	38.9
Age (in years) (n=342) Mean 40.25 ± 11.62 years	20 -29	76	21.7
	30 -39	113	32.3
	40 -49	66	18.9
	50 -59	64	18.3
	60 -69	29	8.3
	70 -79	2	0.6
Basic Pharmacy Degree (n=378)	B. Pharm	273	72.5
	Pharm. D.	42	11.2
*Additional Pharmacy degree (n=379)	MSc/M.Pharm.	43	11.4
	PhD	12	10.4
*Additional non -pharmacy degrees (n=379)	Diploma in Law	7	1.8
	Economics	10	2.6
	ICAN/ANAN	3	8.0
	MPH	15	4.0
	MBA	36	9.5
	MSc.		
	Management Psychology	1	0.3

Years of practice (n=363)	1 -5	154	42.4
Mean 9.38±8.1years	6-10	126	34.7
	11 -15	27	7.4
	>15	56	15.4
Ownership of pharmacy	Owner	112	30.3
	Partner	32	8.6
	Employee	225	61.1
Pharmacy Ownership by sex (p>0.05)	Male	73	65.2
	female	39	34.8

*Multiple responses included

Table 2: Distribution and characteristics of community pharmacies

Description	Variables	Frequency	%
Location of Community Pharmacies (n=373)	Urban	259	69.7
	Semi -urban	96	25.5
	Rural	18	4.8
Type of Community pharmacies (n=345)	Retailing	237	80.0
	Wholesaling	41	11.6
	*Combined	67	8.4
Estimated net annual income of community pharmacies (n=323)	<N1million/annum	57	17.6
	N1 - N2.5 -million/annum	101	31.3
	N2.5 – 4.9million/annum	61	18.9
	N 5- N9.9million/annum	53	16.4
	>N10million/annum	51	15.8

*Combined: wholesaling and retailing; *

*Multiple responses included

Staff strength of community pharmacies

The staff strength of the community pharmacies is presented in Table 3. A large proportion (78.8%) of community pharmacies employed between 1 and 2 pharmacists, followed by 15.1% who employed between 3-4, and only one had between 9-10 community pharmacists in their staff profile. The support staff strength was higher in Lagos and significant for pharmacy managers, pharmacy technicians, nursing staff and sales assistant cadres ($p \leq 0.05$).

Table 3: Staff strength of Community Pharmacies in Southwestern Nigeria

S/N	Staff category	No of staff	Frequency	Percentage
1.	Pharmacists (n=345)	1-2	272	78.8
		3-4	52	15.1
		5-6	16	4.7
		7-8	4	1.2
		9-10	1	0.3
2.	*Pharmacy Manager (employee) (n=350)	0	183	52.3
		1-2	162	46.3
		3-4	5	1.5
3.	*Pharmacy Technicians (n=201, 80.1%)	0	151	43.5
		1-2	166	47.8
		3-4	25	7.2
		>4	5	1.5
4.	Health Assistants (n=349, 92.8%)	0	160	45.7
		1-2	150	45.7
		3-4	23	6.6
		5-6	4	1.2
		>6	3	0.9
5.	*Nurses (n=348)	0	190	50.5
		1-2	130	37.4
		3-4	21	5.6
		5-6	6	1.9
6.	Cashiers (n=346)	0	128	37.0
		1-2	181	52.3
		3-4	29	8.4
		5-6	8	2.3
		7-8	2	2.5
7.	*Sales Assistants (n=343)	0	80	23.3
		1-2	181	48.1
		3-4	49	14.3
		5-6	9	2.6
		7-8	5	1.3
		10-12	7	2.2
8.	Dispatch riders	1	2	100
9.	Security personnel (n=349)	0	123	35.2
		1-2	191	50.8
		3-4	21	60.0
		5-6	3.4	3.7
		>6	1	.3

*p≤0.05 for Lagos state

Challenges in managing human resources in community pharmacies during the COVID-19 pandemic

Challenges experienced by community pharmacy staff included difficulty in getting transportation to and from work (68.1%), followed by fear in attending to clients (60.6%), absenteeism (43.9%), and absenteeism due to domestic reasons (21.5%). In proportion to the states' sample sizes, Osun state community pharmacists reported highest challenges to staff mobility (84%), fear of attending to customers (68%), and poor compliance to safety protocol (44%). These results are presented in Figures 1 and 2. These are corroborated by respondents' comments during the in-depth interviews which showed that community pharmacy staff faced difficulties in accessing means of transportation to commute to and from work and that staff ignorance and misconception of the disease were also rife. Relevant comments representing human resources challenges are presented in Table 4.

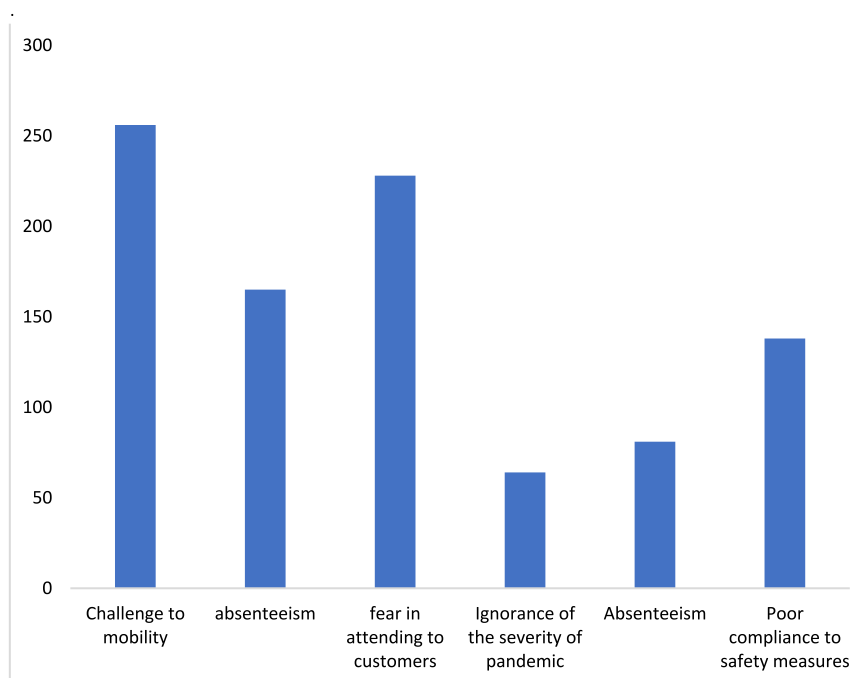


Fig. 1: Proportion of community pharmacy human resources challenges during the COVID-19 pandemic in all study states

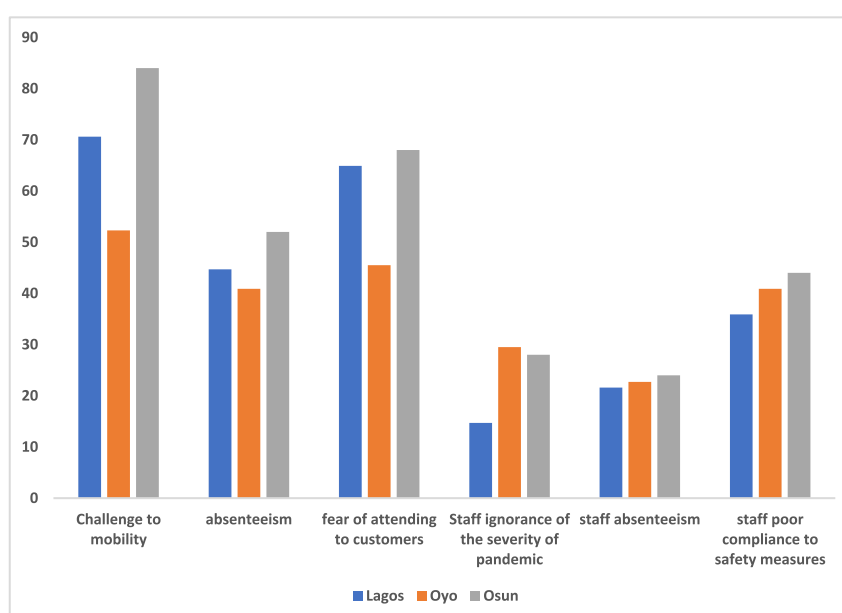


Fig. 2: Proportion of Human resources challenges during the COVID-19 pandemic per study state

Table 4: Representative Comments on Human resources challenges during the COVID-19 pandemic

S/N	Issues	Representative Comments
1.	Commuting to and from work	<i>"During the two weeks, we had to pick them from their homes. Those that have bikes used their bikes. Those that did not have any form of transportation... we actually went to pick them from their houses. No, they did not have to commute by public transportation..."</i> <i>"Some of them are married, and living with their husbands house, the option is if their husbands can bring them, no problem, if not we go and pick them"- Osun retail (16)</i> <i>"There was no transportation made available and the commercial vehicle transport were not available too. It was really difficult going to work, so that was a major challenge"- Osun retail (19)</i>
2.	Staff ignorance and misconception about keeping safe and complying to infection control measures	<i>"most of them (staff), did not even know... they were aware of COVID, but they did not even understand what it entails. Because some of them were not health inclined (professionals), they did not understand what it entailed." - Osun Retail 16</i>
3.	Fear among staff	<i>"Hmm! Well, the major concern was how to protect myself in such a way that I don't get exposed and become a form of check to other people too. So that fear was there and for that reason I tried to limit contact with the patient while attending to them" – Osun, retail (18)</i> <i>"there was a lot of fear among staff to attend to customers. They are afraid of also contracting the virus..." -Osun retail (17)</i>
4.	Compelled to Retrench Staff	<i>"...We had to tell them to stay back home for a while. but with no salary".</i> Osun Wholesaler/Retailer (16)
5.	Disruption of Pharmacy Administrative Activities	<i>"Due to staff shortage and pressure of high volume of client traffic, I am compelled to serve the clients to decongest the client traffic. ...of course, it affected my administrative functions"- Lagos Wholesaler/Retailer 6</i>

Challenges from government security agents and Security Issues at the premise

Harassment of non-pharmacists on their way to work (43.5%) by security agents and of delivery vehicles by security agents on the interstate (33.2%), armed robbery (27.2%) and looting incidents in pharmacies (24.9%) were among security issues experienced by community pharmacy staff during the COVID-19 pandemic (Fig. 3). Harassment of non-pharmacist staff was the highest security issue across the states with community pharmacists in Osun state reporting the highest harassment of staff (60%), and of delivery vehicles on the highway (36%) as presented in Fig. 4.

Respondents during the in-depth interviews also mentioned that their non-pharmacist staff experienced harassment from security agents on their way to work and their delivery vehicles was often delayed on the highway when supply vehicles are coming from Lagos to make deliveries to their states. The comments of community pharmacists in the study states representing their experiences with security challenges are presented in Table 5.

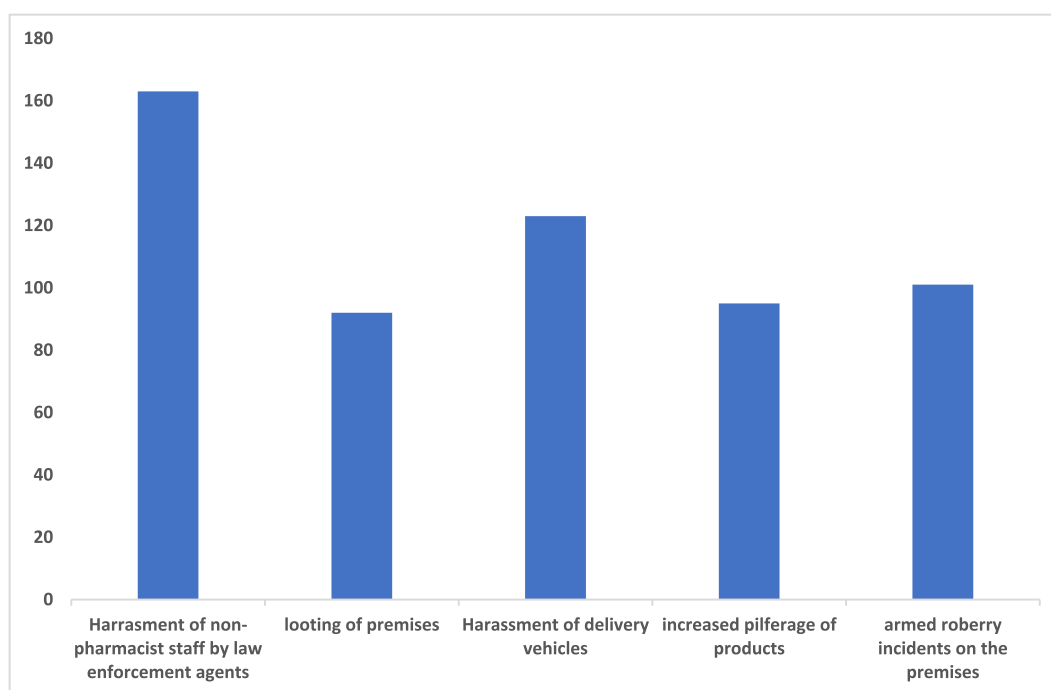


Fig. 3: Security Challenges experienced by community pharmacy staff during the COVID-19 pandemic

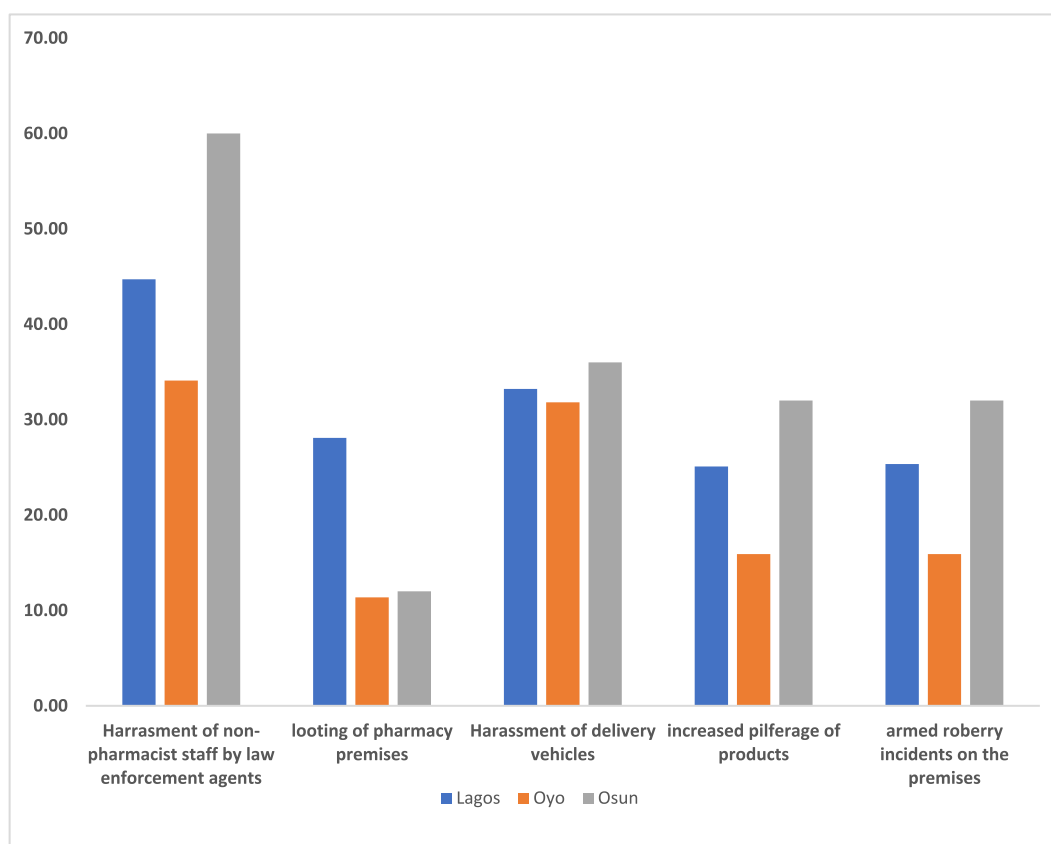


Fig. 4. Proportion per state of the security challenges experienced by community pharmacists

Table 5: Representative comments on challenges posed by security agents and threats of looting of the community pharmacies

S/N	Issues	Representative comments
1.	Harassment of non-pharmacists who are staff on their way to work	<i>“Sales staff and pharmacy assistants had difficulties getting to work. They were continually harassed by security operatives for being out there on their way to work.”</i> Lagos retail (4) <i>“...the police accosted my staff on their way to work at the initial lockdown period since they were not pharmacists”</i> -Osun Retail 17
2.	Delay of supply vehicles on the highway	<i>“security agents on the highway do not distinguish between vehicles carrying medicine and essential supplies from other vehicles. This posed some challenges to the management of the community pharmacy at the period”</i> _Osun Retail 18
3.	Threat of looting	<i>“During the complete lockdown, ...many persons were hungry, we saw a lot of boys coming around, so we already knew that there was risk of looting. But we did not allow entrance indiscriminately and more so we employed a “No Cash Policy” for our transactions. which was a security measure for us also against theft”</i> – Lagos Whole/retailer (2) <i>“We see them around... you know this is a busy place. They loiter around and sometimes come in to ask for money. I give them. But here and from pharmacists in the state, I have not heard any report of looting of pharmacy premises”</i> -Oyo State Retail (8)

Innovative Strategies employed in handling Human Resources Issues

Strategies employed to manage human resources issues during the COVID-19 pandemic changes are presented in Figure 5. These included, changing of staff work schedules to shifts rotations (63.8%); car-pooling among staff (32.2%) and use of company vehicle to transport staff to and from work (24.5%) to aid transportation problems; and provision of accommodation for staff in a nearby apartment (10.3%) and within the pharmacy premise (8.4%). Higher annual income was significant ($p \leq 0.05$) for use of company vehicle for transportation of staff during the period. Comments corroborating the quantitative data on strategies employed by community pharmacies to handle human resources challenges during the lockdown period are presented in Table 6.

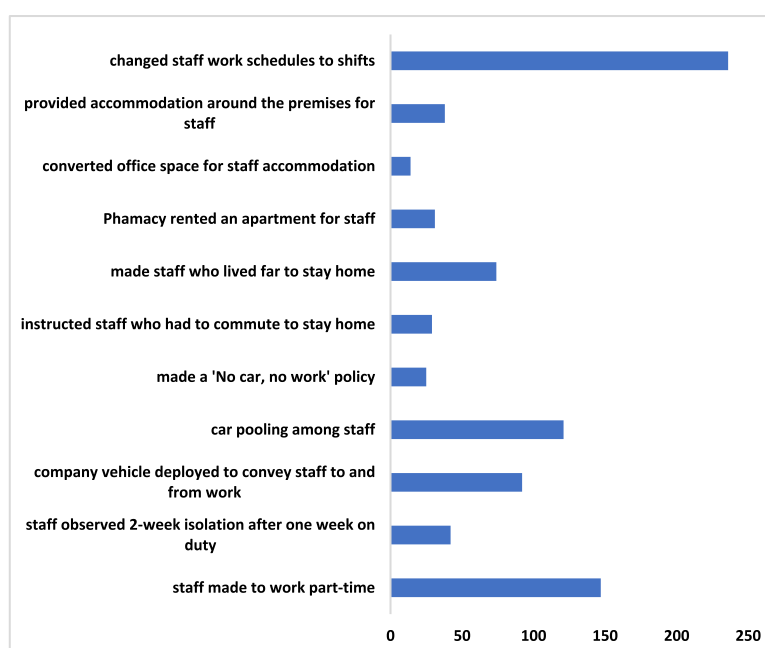


Fig. 5 Strategies employed to handle human resources challenges during the COVID-19 pandemic

Table 6: Comments on strategies to handle some human resources issues during the COVID-19 pandemic

S/N	Strategies	Representative Comments
1.	Provided accommodation for staff	<p><i>"...during the total lockdown we turned some office spaces to rooms they (staff) can live in during the period so we don't have issues of staff absence affecting the pharmacy.</i></p> <p><i>...Moreso, as demand increased, we had to prepare accommodation for them"</i> -Lagos Wholesale/Retail (2)</p> <p><i>".. we have staff accommodation for most of our staff provided by the pharmacy management which they pay for after one year of free rental. So, it is easy for us to go pick them there and bring them here. We had to let them go (those living far). ...Yes, it with no salary"</i> -Osun retail (16)</p>
2.	Used office car to bring staff from designated stops	<p><i>"We used our office car to bring them to and from the office during the period of complete lockdown"</i> – Osun Wholesale/retail (16)</p> <p><i>"When there was complete lock down, the company driver usually goes to their house to bring them to work and goes back to drop them ...This continued until the ban was lifted"</i> - Lagos Retail (1)</p>
3.	Pooled Car Services	<p><i>"It was not easy for staff to come to the office during the total lockdown and even now. We had to help ourselves and those who had cars picked up those who didn't to and from the office"</i> -Lagos retailer (1)</p> <p><i>"Then, at a time we had to tell staff that live in the same location to pick one another, so no one had to take public transport, even till date, to reduce the level of exposure"</i> -Lagos Wholesale/Retail (2)</p>
4.	No Car, no work policy	<p><i>"In order to ensure that exposure is reduced, we had to put up a policy like, "No car, No resumption", so anyone who take public transport to come to office was told not to come to work."</i> -Wholesaler/retailer, Lagos (2)</p> <p><i>"...most of the staff we have live a walking distance to the pharmacy, except for one, who had to stop coming to the pharmacy for a while, ...yes she stopped coming to work for a while during the lockdown"</i> - Lagos Retail (4)</p> <p><i>"...we had to request those (our staff) who live far from the pharmacy to stop coming to work... but without pay too"</i> -Osun retail (16)</p> <p><i>"We retrenched two of our staff because... of where they stay. It was far and we could not go there every day to pick them and to drop them again."</i> -Oyo retail (7)</p>
5.	Provided health education about the pandemic	<p><i>"We had to do a lot of training and retraining of the staff in handling the current situation"</i> -Lagos Retail/Estate (4)</p> <p><i>"I had to give them some training and information about the disease and how it spreads. I gave them statistics of deaths and how it can be spread... they were surprised and became enlightened. They started to comply.</i></p> <p><i>"...I did a lot of education and told them that they should always keep their hands away from their eyes, nose and ears."</i> -Osun Wholesale/retail (16)</p>
6.	Regular Supervision of non-pharmacy staff for compliance	<p><i>"I had to do a training for them to keep safe and watch the staff continually. I don't want a case where a case of COVID-19 infection would be traced to the pharmacy and give it a bad name"</i> - Lagos retail (3)</p> <p><i>"...we need to be alive to make the money and doing that includes the necessary counselling support staff, driving that consciousness into them that you need to stay safe, wear your mask, routine washing of hands, and use hand sanitizers"</i> - Lagos retail (4)</p> <p><i>"So, it was like a constant tutoring that I had to give them."</i> - Osun Retail (16)</p>

7.	Changed working hours and Shift duties for staff	<i>...due to high influx of customers, we deployed the person on night shift to day time duty” -Lagos retail (4)</i> <i>“we had to start with 10am – 4:00pm (shifts), on alternate days. So, we (staff) don’t come every day to reduce the exposure. The other days are free. This is because as at then the regulations came out that pharmacy and some essential services can open till four. So, as government was adjusting, we too were adjusting. Eventually we were opening 9am to 7pm, though we closed by 5pm, and allow those that are resident to close by 7pm on alternate days.</i> <i>“...We started running more daily shifts unlike before -three shifts instead of two” Lagos Wholesale/Retail (2)</i>
8.	Co-opted staff from other departments	<i>“...we had to reach out to the retail section staff to help out at the wholesale department. That was how we were able to cope with the workload.”- Lagos wholesale/retailer 2</i>
9.	Recalled staff from “stay at home” policy	<i>“as the demand increased, we had to include some of the interns and ITs, whom we had told to stay home initially That was how we were able to cope with the workload.”- Lagos wholesale/retailer 2</i>

Strategies employed to ensure staff safety

Strategies to ensure staff safety are presented in Table 7. These included provision of personal protective equipment for staff (78.5%), attending to customers from behind glass/steel barriers (54.6), stopping of counselling inside the pharmacy office (91.8%), and discontinuing services that require close contact with clients (36.8%) such as blood pressure and sugar screenings. Representative comments from interviewed respondents corroborated these results (Table 8).

Table 7: Operational changes made to ensure staff safety while attending to customers in community pharmacy during the COVID-19 pandemic

S/N	Measures taken for staff safety	frequency	percentage
1.	provision of personal protective equipment for staff	288	78.5
2.	Attended to clients from behind glass/steel barriers	202	54.6
3.	Initiating home-delivery services	108	28.7
4.	Started phone-in order for medicines	111	29.5
5.	Stopped counselling inside the pharmacy office	343	91.2
6.	Stopped accepting cash	43	11.7
7.	Disinfected pharmacy before and after opening	222	60.7
8.	Stopped services involving close contact with clients (e.g. blood pressure and sugar checks)	135	36.8
9.	Reduced opening hours	204	56.4

Table 8: Comments on Operational changes made to ensure staff safety while attending to customers in community pharmacy during the COVID-19 pandemic

S/N	Strategies	Representative Comments
1.	Process flow of service provision	<i>“Basically, it is more of the routine operations. We adopted a “no physical contact” procedure with customers. A staff meets them under the tent outside the pharmacy, send in their order to the pharmacy inside via WhatsApp and when it is ready the products are placed on a plastic tray for the customer to pick. They use cashless means, POS or electronic bank transfer to make payment. That was how we handled the service procedure to ensure that we keep up with the safety process.” -Lagos, Wholesale/retailer (2)</i> <i>“...before the COVID era we had one-on-one contact with our clients. But now, we take</i>

-
- their orders from across the barrier, go in to pick them up and return with the filled order. In some instances, we have to bring several brands to them outside for them to pick from and we complete a transaction before proceeding to the next client which is a lot of going back and forth and with the limited staff there was a lot more to do in serving the customers and being on the move constantly”- Lagos retail (3)*
2. Stopped offering some services

“...we stopped offering some tests; no more blood pressure checks; blood sugar test; we advise people to get the device to do self-testing.” -Lagos wholesale/retail (2)

“Yes, we had to stop offering some services to our clients such as measuring their BP and such” Oyo retail (7)

“...even Malaria Parasite test that I do routinely before I consider anybody for anti-malarials, I refrained from doing it... as I have to be very careful with anything that will involve close contact with any client. ...I refrained from them totally.” -Osun retail (17)

“We stopped Blood Pressure monitoring, we cut off Blood Sugar test, and we cut off a lot of consultations that require close proximity to the client” -Osun retail (18)

“We stopped measuring people’s BP (Blood Pressure) to prevent exposure to cases” - Lagos Retail (3)
 3. Stopped counseling in the pharmacist office

“...myself and the other pharmacists have stopped counselling clients in the office.”- Lagos Wholesaler/Retailer 2

“... I refrain from anything that will involve close contact with the clients.” - Osun retail (17)
 4. Handling cash
 - i. Use of hand sanitizer after each cash handling

“After every transaction and collection of currency notes, or have received a prescription to fill, once you are done you hand it back to the patient and sanitise your hands. Whatever objects have been touched, whether currency notes, people or prescription notes, or whatever it is they have touched, as soon as you are done you just sanitise and go back to your duty post”- Lagos retail1

“...we told them (the cashiers) to use the hand sanitisers regularly after collecting cash payments as a means of protecting themselves” -Osun retail (16)
 - ii. Use of a polythene bag to receive currency notes to avoid contact

“...I tell them when they’re giving me the cash or they are making payment to put it in polythene bag. I also advise the clients not to put the balance they receive from us into their pockets.”- Lagos retail (4)
 - iii. Rotation of cashiers

“It is only one cashier at a time, one person at the cash point. ...out of the 18 staff they rotate it amongst themselves who will be the cashier today, who will do it next week. So, the person at the cash point is the only one collecting money. She has hand sanitizer, she has spray, and then she uses gloves. She collects and counts the money, and after everything she would wash her hands. She can use the hand sanitizers. At times when I was there, I will just tell them, “spray the money please” and they spray.

“When they want to confirm to know what they have sold and the money left, the person that will confirm will handle the cash takes the same precautions. So that there would not be any casualty, then straight to the bank” – Osun retail (16)
 5. “No cash” policy

“We completely went cashless. There are options of using ATM cards, or pay by transfer, or use the POS...” Lagos Wholesaler/Retailer (2)

“...then another practice of some pharmacies on the Lagos Island was to go completely cashless, clients use transfers or debit cards to pay. We did it at the onset but discontinued as it was not sustainable for us”. -Lagos retailer (4)
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Strategies adopted to resolve security Issues

Strategies employed by respondents in handling harassment by security agents on their way to work included procurement of identification cards (44.9%) for non-pharmacist staff. For the supply vehicles that were harassed by uniformed personnel on the highway, some respondents mentioned that they gave tipped the security agents to allow free passage of supply vehicles (9.2%). These are presented in Figure 6. Interviewees from Lagos and Osun states also said that they made identification cards for staff to handle harassment by security agents and only respondents from Osun mentioned that they tipped security agents on highways to facilitate movement of supply vehicles. Another respondent from Osun state gave a note to their supply vehicle driver to show the security agents on the inter-state highway to allow free passage.

None of the community pharmacists interviewed had experienced break-in in their premises but one mentioned that they anticipated it. To prevent break-ins, respondents limited the number of customers who can enter at a time (67.6%), instituted cashless policies (11.1%), and installed security features (26.8%). Representative comments supporting these are presented in Table 9.

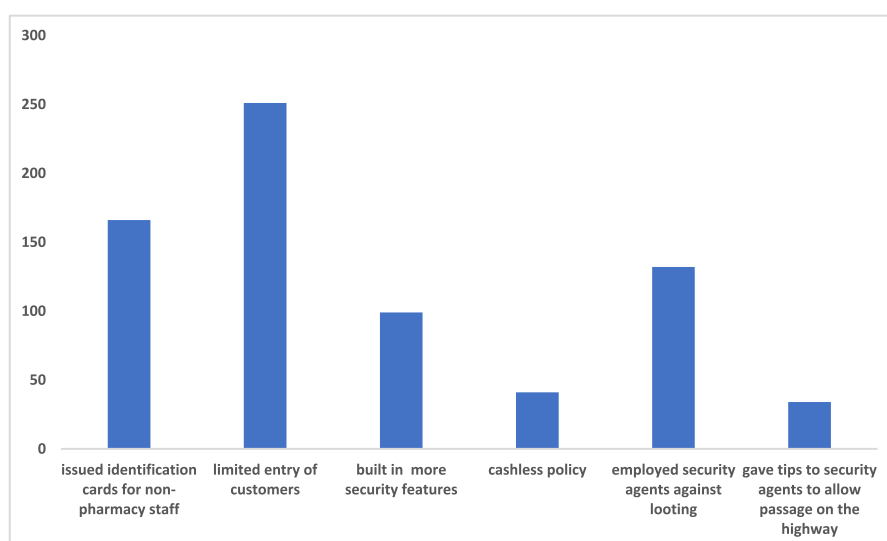


Fig. 6 Strategies employed by community pharmacists to handle security issues

Table 9: Representative comments on handling security challenges

S/N	Strategies	Representative comments
1.	Issued staff Identification cards	<p><i>"I had to issue ID cards for the staff to stop the harassment from security agencies, though I think they have to be made aware that those other staff with pharmacies are essential workers too"</i> -Lagos Retail (4)</p> <p><i>"I issued ID cards to each of my staff so whenever they encountered security personnel, they could show them. That would resolve the issue"</i> - Osun Wholesaler/Retailer (12)</p>
2.	Cashless policy	<p><i>The cashless policy we adopted was, first for safety reasons, and then also for security purposes. So, the guys loitering around the premise already know that we were not collecting cash. So, there was no money they were coming to steal."</i> --Lagos Wholesaler/retailer (2)</p>
3.	Tipped security agents	<p><i>"we had to tip the security agents on the highway to allow our supply vehicles go through without delay"</i>- Osun Retail (21)</p> <p><i>"...there were many of the boys hanging around and coming in to greet me. ..you know many people are hungry and when they asked me for money I find something for them so that they don't get offended and come back to cause trouble"</i>- Osun Retail (8)</p>
4.	Issue a note for the delivery driver to show the security agents on the highway	<p><i>"...I wrote an official letter stating clearly the name of the driver; that he is on an assignment for the above-named pharmacy to convey drugs from Oyo State to Osun State."</i> -Osun (18)</p>

DISCUSSION

The findings from this study provides useful insights about human resources challenges in community pharmacy staff and how the challenges were managed amidst the disruptions caused by the COVID-19 public health emergency. Challenges to mobility to access the pharmacy, absenteeism, fear in attending to clients, non-pharmacy staff ignorance of the severity of the pandemic, were rife across all three states. Some pre-existing policies, structures, resources, and conditions helped in mitigating some of the staff challenges experienced. For example, access to the pharmacy by staff was not an issue for pharmacies that provided staff accommodation as an existing policy prior to the pandemic. It was also easier for pharmacies who had ample office spaces to convert these to living quarters for staff that could not go home due to the lockdown curfews. The added advantage to this was the opportunity for staff to work longer periods compared to those who needed to close earlier than the curfew time to enable staff get home and avoid being accosted by security personnel. There is paucity of information on previous use of this strategies making it an innovative solution during the period.

Also, pharmacies that employed only support staff who live within walking distance to the pharmacy did not have issues of access to the pharmacy nor needed to use a public means of commuting to the office. In such pharmacies, staff absenteeism during the period is likely to be reduced compared to those who lived far. Availability of an official car helped with transportation difficulty faced by staff. The fact that use of official vehicles correlated with higher annual income shows that financial capability is a factor that would make this strategy feasible. Carpooling among staff was a unique measure employed by staff who had their own means of transportation. Car-pooling entails having those who have a means of transportation meeting up with others at strategic places for pick-up to and from the office thereby helping to ease transportation and access to their pharmacies. This avoids mingling with the general public while on commercial vehicles and prevents exposure to the attendant risk of contracting the infection.

At the extreme, some community pharmacies adopted a “no car, no work” and “stay far, stay home” policy resulting in laying off staff. Though this was for safety reasons, laying off staff represents a form of economic downturn for the staff affected. It was relieving to note that some community pharmacists stated that they recalled affected staff after the lockdown infection prevention measures were eased.

Fear of attending to clients as reported by community pharmacy staff has been reported in both the Ebola epidemic and COVID-19 pandemic in several studies.

During the Ebola period in West Africa, Dzingirai *et al*¹⁷ and Centers for Disease Control and Prevention¹⁸ reported that healthcare staff experienced fear in handling patients. As described in a study in Nigeria during the Ebola Virus disease outbreak in West Africa and its near-miss in Nigeria, health care professionals were reported to be afraid¹⁹. Some studies²⁰⁻²² showed that pharmacists and other healthcare professionals expressed fear in attending to patients during the COVID-19 pandemic. This is expected since healthcare staff including community pharmacists, and their support staff, encounter a continuous stream of clients who could be asymptomatic clients as reported by Jegede *et al*²³. Hence, the fear. The implication, as buttressed by Okereke *et al.*,²⁴ is that this might lead to a reluctance of pharmacy staff in discharging their duties as they would be equally worried about their health. As posited by Irabor and Okoli²⁵ ensuring staff satisfaction and safety are key components in staff retention and making provisions for staff safety is essential for continuity of service during any public health crisis caused by an infectious disease like COVID-19.

From the results, some community pharmacists complained about their support staff having a poor compliance to infection prevention protocols and not taking the pandemic issues seriously. This could be a manifestation of low health literacy often encountered among community pharmacy support staff. As reported by Schafheutle²⁶, support staff often possess low levels of formal education, and a relatively significant proportion (33%) did not have a background in mathematics or science. Against this background, it is expected that they will not easily understand or appreciate the pandemic health and infection prevention issues. This brings to fore the essence of employing trainable staff that can appreciate ongoing public health issues and can make the necessary behavioural changes to ensure that services are provided in a manner that is safe for other staff and clients. Though respondents in this study said they often handled the situation by closely monitoring the support staff, and by providing health education. However, this consequently created an added burden of extra responsibility on the community pharmacists.

As seen in the results, absenteeism was another human resource management challenge during the COVID-19 pandemic as was also reported by FIP¹⁰ during the Ebola epidemic of 2014. One reason adduced for this was the need for staff to cater for dependents such as children and the elderly who could not go to school due to restrictions to movement. Another reason for staff absenteeism shown in this study was the difficulty in getting to the office during the full and partial lockdown periods. This is expected to

cause some disruption in the service provision due to shortages in staff. Community pharmacies have been reported to have a deluge of work during the COVID-19 pandemic²³ coupling this with staff absenteeism would make handling tasks demanding for the staff who turn up for work. Strategies adopted like rescheduling of shifts and roles seen in the survey to accommodate absenteeism and staff burnout were innovative. Other strategies employed to address staff absenteeism seen in the study were provision of accommodation and a means of transportation for staff.

Some task-shifting was reported where the support staff rotate responsibilities such as handling of cash. This was innovative to minimize long exposure to infection risks from handling cash during transactions. Some other measures adopted to ensure staff safety while attending to clients included those that were capital intensive such as provision of personal protective equipment for staff and constructing barriers into the pharmacy structure to ensure adequate physical distancing between them and clients. Some stopped offering services that involve close contact such as screening services. This would inadvertently result in revenue loss but was a sacrifice community pharmacists paid to ensure staff safety during the period. All activities to ensure infection prevention show their determination to keep offering routine services.

Though Community pharmacies were among essential services that were permitted to open during the lockdown periods, they reported that security operatives often harassed their non-pharmacist staff since they do not recognise sales assistants, pharmacy technicians and other non-pharmacist staff as essential workers in community pharmacies. This represents an ignorance on the part of security operatives requiring their enlightenment.

None of the pharmacists interviewed experienced looting of their shops during the COVID-19 lockdown periods. Though globally and locally, there were reports of looting of shops to steal food, household items and cash due to the hardship the forced stay indoors brought to many and the resulting economic crunch^{27,28}. For community pharmacists in this study their management of operations could be the reason for prevention of looting. Such practices reported include allowing only a limited number of clients into the pharmacy at a time, the presence of security personnel (for those whose premise were in shopping malls), the practice of cashless payments, and allowing zero access into the pharmacy at late hours.

The strategies for managing community pharmacy human resources as shown in this study reflect a determination and resilience to ensure that service provision was not disrupted during the COVID-19 public health emergency and lockdown periods.

CONCLUSION

Community pharmacy staff experienced several challenges during the COVID-19 pandemic. The reported innovative strategies employed serve as approaches that can be adopted in community pharmacy practice to manage human resources challenges in any future pandemic. They also serve as elements to address in emergency preparedness efforts to ensure continuity of service during any public health emergency. The strategies are recommended for policy change and for input into the design of standard operating procedures for management of community pharmacy human resources during public health crisis. They also serve as elements to address in emergency preparedness efforts to ensure continuity of service during any public health emergency. It is recommended that some minimum standards of education could be stipulated for non-pharmacy staff to ensure a crop of support staff that can comprehend and comply with public health issues and recommendations. In addition, all security agency outfits should be enlightened that non-pharmacist staff serve essential roles in community pharmacies where they work.

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