

Willingness to practice basic first aid care among community pharmacists in Lagos Nigeria

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ABSTRACT

Background: The growing incidence of terrorism and/or disasters across the world makes it important that all healthcare professionals get empowered with the skills to offer first aid to self or others when the need arises.

Objectives: The objectives of this study were to assess the knowledge and willingness to practice basic life saving first aid care (FAC) among community pharmacists in a metropolitan city, South West Nigeria

Methods: This study was conducted with the aid of structured interview and questionnaires among registered community pharmacists in two Local Government Areas (LGAs) of Lagos State and the reports obtained were subjected to descriptive and inferential statistical analysis.

Results: The feedback showed that almost all (136, 96.1%) of the respondents could correctly define first aid care and also gave the correct aim of the provision of first aid care. Majority 126 (88.1%) had been involved in the practice of life saving first aid care though only very few (13, 9.1%) attended a recent training on FAC. However, their practice of FAC was affected by lack of adequate FA skills, the inability of most clients to pay for their bills, lack of cooperation from other members of the health team regarding referral of FAC cases in Lagos state, and lack of standardized skills acquisition protocols for the training of community pharmacists in the provision of FAC.

Conclusion: The community pharmacists in the two study areas demonstrated good knowledge of first aid care but few applied this knowledge in their daily practice. The pharmacists indicated willingness to practice first aid effectively if properly trained. There is a need to sensitize all stakeholders to ensure that good quality first aid care services are made available in the community pharmacies.

Key words: First Aid Care, Community Pharmacists, Willingness to practice, Nigeria

INTRODUCTION

First Aid is the immediate and temporary but proper aid provided to a sick or injured person or animal until medical treatment is provided.¹ This care furnishes temporary assistance until a victim receives competent and skilled medical care or until the chances of recovery are assured. First aid care generally consists of a series of life saving medical techniques that can be performed with minimal medical sophistication.¹ First aid care is a concept that emphasizes not only what must be done but who can do it and what should be done.² First aid requires an organized approach involving people, equipment and supplies, support facilities and arrangement for the provision of skilled care, and evacuation of victims from accident sites. Organizing first aid involves a cooperative effort among the private and public sector health care workers. Furthermore, the growing incidence of terrorism and/or disasters across the world also makes it important that all healthcare professionals get empowered with the skills to offer emergency aid to self or others when the need arises.³

The community pharmacists are major key players in the health care delivery system.⁴ As skilled care providers, community pharmacists are usually the first point of call for assistance to some health problems suffered by persons and are the key focus in medication management services. First aid care knowledge and provision are important for the practice of quality pharmaceutical care. In this regard, the community pharmacies are relevant health care support sites that could be readily involved in the provision of first aid care.⁵ Pharmacists are so easily accessible because no appointment is needed, and they are available to counsel and dispense drugs throughout the day. In addition, many pharmacies are open for long hours, and it is easy to see why the public takes advantage of such convenient access to health advice.

Studies have shown that community pharmacists in developed countries are involved in first aid care services. In America, community pharmacists are specialized in diverse practice areas such as taking up courses in the practice of cardio-pulmonary resuscitation, (CPR) which is a critical and life saving first aid technique.⁶ Community pharmacists have also being reported to contribute significantly to

providing emergency care to tourists in some districts in Malta.⁷

In Nigeria, the escalating cost of facility-based health services makes it impossible for many persons to access, afford and utilize proper medical care. It is a common practice to take accident victims with minor injury to community pharmacies, which often times are nearest to the site of accidents. In order to ensure that the relevant techniques are applied, so that further harm to victim is prevented, community pharmacists should be adequately trained to render quality first aid care. They should also be willing and able to render care effectively as the need arises.

Determination of knowledge of first aid care and willingness to provide first aid services by community pharmacists in Nigeria is an important intervention strategy towards improved health care. This will facilitate the promotion of health care delivery to a resource limited population. The objectives of this study were to assess the knowledge, and willingness to practice basic life saving first aid care among community pharmacists in Lagos, a metropolitan city, south west Nigeria.

METHODS

Setting

This study was conducted among registered community pharmacists who have their registered pharmacies located in Ikeja and Kosofe which are two Local Government Areas of Lagos State. Based on the 1991 National population census, Kosofe LGA is estimated to have a population of 352,522 people.⁸ However, a 1999 Lagos state population projection at a yearly increase rate of 2.5 % puts the population at about 473,552 people. Within Kosofe Local Government Area are- one general hospital located at Gbagada, seven primary health centers, three dispensaries and over fifty registered pharmacies, private clinics and hospitals whose activities are regulated by the state government and other relevant regulatory agencies. On the other hand, Ikeja Local Government Area, which is the administrative headquarters of Lagos State Government has a large number of industries and manufacturing firms, big pharmaceutical companies, one tertiary hospital, about eighty private health facilities, many registered traditional healing homes and over one hundred registered

community pharmacies.

Study design

This study employed a cross-sectional, observational survey of community pharmacists. It involved the conduct of in-depth interviews amongst community pharmacists in Ikeja and Kosofe LGAs of Lagos State to document their opinions and beliefs regarding the knowledge and practice of first aid care; and also the challenges and factors affecting their involvement in the provision of these services in the areas where they are located. The findings from these interviews provided useful information for designing a structured questionnaire

Sampling procedure

Sample size was determined using a statistical formula⁹ for sample size determination which gave a figure of 138. This sample size number was deliberately increased to 150 to give room for attrition.

Community Pharmacies in Lagos state fall into 12 coordination zones as structured by the Association of Community Pharmacists in the state. Two were randomly selected: zone 4 and 12 which represented two Local Government Areas in Lagos state.

Following the list from the Pharmacists Council of Nigeria, the respondents were distributed in the ratio of 1: 2 based on the population density and the numbers of registered Pharmacies in the two LGAs. For every one Pharmacist in Kosofe LGA, two from Ikeja LGA were recruited, giving the total of 50 respondents from Kosofe and 100 from Ikeja LGA. Superintendent Pharmacists who were in direct supervision of the practice in the selected Pharmacies were recruited for the study using a systematic sampling method.

Data collection

Questionnaire design and administration

The questionnaire consisted of five main sections. The socio-demographic characteristics of the community pharmacists which comprised the following: type and year of practice, post graduate qualification, previous areas of practice and ownership of the premises. Other sections included knowledge and awareness about basic life saving first aid care, practice of basic life saving first aid

care, opinions and beliefs regarding first aid care provision and willingness to practice basic life saving first aid care. The following steps were taken to ensure the validity and reliability of the study instruments. First, drafts of the instruments were developed with the assistance of an expert, some other health care providers involved in accident and emergency services and staff of the Red Cross Society. Comments made were noted and necessary corrections effected before the final version was drawn. Secondly, the instruments were developed in simple and comprehensible English Language. Thirdly, the IDI guides and the questionnaires were pre-tested. The results of the pre- test were used to modify the instruments to obtain the final versions. Data were collected over a two- month period, since it involved meeting with the pharmacists to seek their consent.

Approval for the study was obtained from the Association of Community Pharmacists Lagos State. Participants were clearly informed that participation in the study was voluntary and that confidentiality was assured. Only respondents who willingly agreed to participate in the study were interviewed and/or administered with questionnaires.

Data analysis

Full reports of the in-depth interviews were written and subjected to content analysis. Themes were generated and described in prose. For the questionnaires, serial numbers were assigned to each for ease of sorting and identification, and they were coded to ensure correct entry of variables for analysis. The data were also edited to ensure that responses were in agreement with each questionnaire item. Following the carefully designed coding guide, the responses provided in each question were entered into the computer and the SPSS statistical Package v 15 was used to analyze the data using differential and descriptive test statistics for comparison of variables.

RESULTS

Area of practice and qualifications

Data were eventually collected from 143 respondents. More than half (95, 66.4%) of respondents were practicing in retail pharmacy, some (28, 19.6%) were in wholesale outlets and the remaining (20, 14.0%) of the respondents combined

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both retail and wholesale pharmacy business. Many, 96 (67.1%) of the respondents had post graduate qualifications ranging from Master in Pharmacy, Masters in Business Administration, Fellow, Postgraduate College of Pharmacists (FPCPharm) among others. Previously, more than half (76,

53.1%) had worked as hospital pharmacists, slightly less than half (45, 31.5%) worked in the industrial sector, only one respondent was in academic line, few (10, 7%) had not worked in other areas of pharmacy practice and the rest (11, 7.7%) had worked in ministries and non-governmental organizations, Table 1

Table 1: Area of practice and postgraduate qualifications of community pharmacists in Lagos (n= 143)

Type of practice	Number	Percentage
Retail	95	66.4
Wholesale	28	19.6
Retail + wholesale	20	14.0
^Postgraduate qualification	Number	Percentage
Yes	97	67.8
No response	46	32.2
Previous area of practice	Number	Percentage
Hospital	76	53.1
Industrial	45	31.5
Academic	1	0.7
None of the above	10	7.0
*Others	11	7.7

^Master of Pharmacy, Masters in Business administration, Fellow of Postgraduate college of Pharmacists; *Others: National Programme on Immunization (NPI) 3 (2.1%), PTF Drugs consultant 5 (3.5%), Federal/State Ministries of Health (FMOH) 3 (2.1%)

Knowledge about First Aid Care

Majority of those interviewed were able to define first aid correctly, had heard about first aid care and also gave responses on the various sources of information

about first aid care. Most (134, 93.7%) of them were able to give the correct aim of the provision of first aid care, Table 2.

Table 2: Respondents' Knowledge of definition and aim of First Aid Care (n=143)

Definition	Number	Percentage
Taking sick person to hospital	2	1.4
[#] Help given to the suddenly ill before proper medical care	136	96.1
Making report about the sick	1	0.7
Recognize an illness and know what to do	3	2.1
No response	1	0.7
Aim	Number	Percentage
To help the sick care for problem	4	2.8
*To save the life of sick persons	134	93.7
To offer assistance	4	2.8
Others	1	0.7
Total	143	100.0

*Correct explanation of aim; [#]correct definition of First aid care.

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Assessment of the level of involvement of the community pharmacist in the provision of first aid care revealed that majority 126 (88.1%) had been involved in the practice of life saving first aid care. The survey also showed that only very few (13, 9.1%) attended a recent training on FAC while majority (130, 90.1%) had no encounter with a recent training related to FA care.

Health Problems commonly cared for in the Pharmacy

Majority of the respondents reported attending mostly to patients with such problems as headache, fever, cold/flu and chronic health conditions like Diabetes Mellitus, Hypertension and Asthma. Those conditions requiring first aid included Drug Poisoning, Burns, Fainting/convulsion and Cuts/wounds/bruises, Table 3.

Table 3: Health problems commonly managed in Nigerian pharmacies

Health problems requiring First Aid	*Frequency	%
Drug Poisoning	7	4.9
Burns	27	18.9
Fainting/convulsion	7	4.9
Cuts, bruises or sprains	81	56.6
Health problems not requiring First aid	Frequency	%
Allergies	16	11.2
Body pain/arthritis/aches	62	43.4
Malaria/fever	76	39.2
Anaemia/worm infestation	26	18.2
Stomach pain/vomiting/diarrhoea	47	32.9
No response	7	4.9
Chronic illness HT/DM management	25	17.5
Cold /catarrh/asthma	70	49.0

- = Multiple responses DM = Diabetes mellitus, HT = Hypertension

Opinions regarding the provision of basic life saving first aid care

Concerning the opinions on the skills of community pharmacist with respect to the provision of FA care, more than half 88 (61.5%) of the respondents strongly agreed that community pharmacists were not adequately skilled in the provision of FA care, while majority 122 (85.3) strongly agreed with the

view that community pharmacist should regularly update their knowledge regarding FA care and its provision to persons in need. Table 4 highlights all the other responses about their opinions regarding the provision of FA care.

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Table 4: Respondents' opinion regarding the provision of First Aid care (n= 143)

Statements	Strongly agree f, (%)	Agree f, (%)	Undecided f, (%)	Disagree f, (%)	Strongly Disagree f, (%)	No response f, (%)	Total f, (%)
Community Pharmacists are not adequately skilled in FAC	88 (61.5)	20 (14.0)	4 (2.8)	12 (8.4)	17 (11.4)	2 (1.4)	143 (100)
The Community Pharmacy is the first point of call for FAC	46 (32.2)	23 (16.1)	5 (3.5)	29 (20.3)	37 (25.9)	3 (2.1)	143 (100)
The Community Pharmacists should be certified before provision of FAC to clients	93 (65.0)	11 (7.7)	3 (2.1)	24 (16.8)	9 (6.3)	3 (2.1)	143 (100)
Community Pharmacists should regularly update their knowledge about FA	122 (85.3)	16 (11.2)	0	1 (0.7)	1 (0.7)	3 (2.1)	143 (100)
Curriculum of training of pharmacists should include knowledge of FAC	124 (86.7)	14 (9.8)	1 (0.7)	1 (0.7)	0 (0.0)	3 (2.1)	143 (100)
Knowledge of FAC should be a prerequisite for Licensing by PCN	35 (24.5)	11 (7.7)	33 (23.1)	30 (31.0)	31 (21.7)	3 (2.1)	143 (100)

**f & % represent frequency (or number) and percentage of respondents respectively. PCN -Pharmacists Council of Nigeria*

Perceptions regarding willingness to provide FA care

Some of the community pharmacists interviewed commented that there was need for community pharmacist to routinely go for training and be certified or recertified in the practice of first aid. This is because some had never received any training in FAC while those who did should regularly go for update on the current practices and information since so many new things are added very often. This is the practice in many developed countries. In addition, the space in the pharmacy is not enough to allow for certain procedures to be carried out. Also, some of the respondents suggested that first aid care should be contained in the pharmacy undergraduate curriculum. Others felt that the update lectures organized by the Pharmacists Council of Nigeria and Pharmaceutical Society of Nigeria should incorporate some practical sessions on first aid care while some opined that Pharmacists should team up with agencies that are involved in accident and rescue services.

The inability or financial unpreparedness of victims or rescuers to pay for FAC services was another complaint made by some of the respondents. From the quantitative survey, slightly more than half 78 (54.5%) reported being unwilling to provide FA care because of fear of conflicts, while very few 29 (20.3) said that they usually provided care to persons in need. Slightly less than half 65, (45.5%) of the respondents could not say if pharmacists were involved in rescue operations in Lagos State. Other opinions regarding their willingness to provide FA care are stated in Table 5.

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Table 5: Respondent's perception regarding willingness to practice FA Care (n=143)

Perceptions regarding willingness to practice FAC	True Number %	False Number %	Can't Say Number %	No response Number %	Total Number %
Community Pharmacist are unwilling to provide FA because of fear of conflicts	78 (54.5)	46 (32.2)	10 (7.0)	9 (6.3)	143 (100)
Community pharmacist are unwilling to practice FAC because of poor occupational safety	88 (61.5)	43 (30.1)	5 (3.5)	7 (4.9)	143 (100)
Community pharmacists are always willing to provide first aid care services because they know what is required to make the difference between life and death in an emergency	55 (38.5)	75 (52.4)	7 (4.9)	6 (4.2)	143 (100)
Community pharmacists provide FAC to all those in need no matter the threats or fears of fatalities	29 (20.3)	90 (62.9)	15 (10.5)	9 (6.3)	143 (100)
Community Pharmacists have readily established links with other care givers for prompt referrals	40 (28.0)	80 (55.9)	18 (12.6)	5 (3.5)	143 (100)
Community pharmacist are always involved in rescue operations following disasters that occur in Lagos state	12 (8.4)	54 (37.8)	65 (45.5)	12 (8.4)	143 (100)

Factors affecting the practice of basic life saving FA care among Community Pharmacists

Interviewed respondents stated that their practice of FAC was affected by factors such as lack of adequate FA skills, the inability of most clients to pay for their bills or for transportation if referral is required, the inability of clients to come early for FA care until late when much harm is evident therefore requiring immediate referral, harassment from law enforcement agents, gathering of large crowds in the pharmacy whenever a victim is being brought

and lack of cooperation from some hospitals/clinics. The survey respondents also remarked along the same line. Inappropriate structural setup of pharmacies for basic life saving FAC, lack of cooperation from other members of the health team regarding referral of FAC cases in Lagos state and lack of standardized skills acquisition protocols for the training of community pharmacists in the provision of FAC are the major factors stated by the survey respondents. Other factors are stated in details in Table 6.

Table 6: Respondents' reported factors affecting their provision of FAC in Lagos State, (n=143)

Factors affecting provision of FA care by community pharmacist	True f (%)	False f (%)	Can't say f (%)	No Response f, (%)	Total f (%)
Limited knowledge among members of the public about FAC in a pharmacy	98 (68.5)	33 (23.1)	7 (4.9)	5 (3.5)	143 (100)
Inappropriate structural set-up of pharmacies for basic life saving FAC.	99 (69.2)	33 (23.1)	4 (2.8)	7 (4.9)	143 (100)
Lack of cooperation from other members of the health team regarding referral of FAC cases in Lagos state	102 (71.3)	21 (14.7)	14 (9.8)	6 (4.2)	143 (100)
Most health emergencies occur at places inaccessible to community pharmacists.	40 (28.0)	70 (49.0)	23 (16.1)	10 (7.0)	143 (100)
No standardized FAC skills acquisition protocols for the training of community pharmacists.	123 (86.0)	5 (3.5)	8 (5.6)	7 (4.9)	143 (100)
FAC provision is adequately integrated into patient pharmaceutical care strategies	23 (16.1)	103 (72)	10 (7.0)	7 (4.9)	143 (100)
FAC provision does not promote monitoring and follow up of clients by community pharmacists.	39 (27.3)	78 (54.5)	13 (9.1)	13 (9.1)	143 (100)
The introduction of the National Health Insurance Scheme will encourage the involvement of community pharmacists as FAC givers	27 (18.9)	34 (23.8)	71 (49.7)	11 (7.7)	143 (100)

*f and % represent frequency (or number) and percentage of respondents respectively.

DISCUSSION

This is one of the first detailed studies aimed at investigating the perceptions and practice of community pharmacists in Nigeria. The study highlighted important gaps in the practice of first aid among community pharmacists which can serve as the basis for intervention strategies.

Socio-demographic characteristics

The findings from this study showed that majority of respondents had worked previously as hospital and industrial pharmacists and many of them had acquired additional postgraduate degrees. This reflected in their experience with first aid care. Hospital pharmacy practice experience and post-graduate pharmacy qualification have been found to enhance the practice of first aid care by community pharmacists.¹⁰ Another study among community pharmacist reported that those who received additional training had significantly more positive attitudes, higher self efficacy and confidence in attending to clients' needs.¹¹

Knowledge about First Aid Care

In order to conform to the expectations of clients and FAC regulatory bodies, it is important that providers, including community pharmacists are adequately knowledgeable about the subject matter. Almost all the respondents knew and could correctly define First Aid Care. A large number of the respondents were already practicing first aid care in their community pharmacies even though only a small number of them had attended a recent training on FAC provision. This is another fact that shows the eagerness and willingness of the community pharmacists to practice FAC. It is therefore desirable that the community pharmacists get routinely updated and certified. In countries where FAC is well established, the best way to ensure effective provision is by legislation which also stresses recertification for FAC providers in time periods ranging from 2-3 years.³

The type of health conditions affecting the clients and reportedly attended to by the community pharmacists in the survey are also in agreement with the documented list of health conditions that require FAC.⁵ This is a good development on the part of the care givers, so that they do not seem to be practicing beyond their limits. However, in other

countries, there are many more climate related conditions that need FAC provision. They include hurricanes, tornados, floods, wild fires, and extreme heat/cold. Though these conditions are of minimal occurrences or nonexistent in Nigeria, it is however ideal for community pharmacist to have the skills to attend to them, which is why attendance of trainings and updates are necessary.

Opinions regarding willingness to practice/ Factors affecting the provision of FAC

From both the qualitative and quantitative survey, the respondents had diverse opinions regarding their willingness to provide FAC. A major limitation observed was the fact that the curriculum of training of pharmacists in the country does not have much content about basic life saving first aid care. The type and skills of personnel providing FAC are critical in achieving best outcomes. It can be inferred that inclusion of adequate content on FAC in pharmacy education curriculum would enhance the community pharmacists' enthusiasm in attending trainings and updates. This fact is supported by a study¹² which showed that comprehensive curriculum covering key issues in both clinical and social health care made community pharmacists very confident in providing care because it enhanced their confidence, relationship with other health care givers as well as enhance life long learning and the ability to take up new roles. Though FAC providers are not necessarily medical personnel, it is important that those engaged have such attributes as motivation, reliability and ability to cope with the crisis situation. These probably are the forces that encourage the community pharmacists, despite their limited training on FAC provision. On the other hand, despite the push to continuously give care to persons in need, some community pharmacists have being faced with conflict situations due to the services rendered. Some of these arise from law enforcement agents, while others are from the clients' unwillingness to pay for the services received. This is particularly true in Nigeria where there is not much awareness about FAC, accident and emergency protocols, and the involvement of pharmacists during disasters.

Challenges faced by the community pharmacists regarding the provision of FAC services

Though FAC provision is often appreciated as life

saving, a number of challenges ranging from remuneration, the need for training, poor infrastructure/physical resources, poor emergency handling protocols and support services from the governments and other members of the health team and insufficient space in the pharmacy were documented as being faced by the respondents.

This is similar to a finding reported by Adam, Hall and Smith (2005) in a study¹³ to assess the views of community pharmacists regarding the adequacies of the pharmacies in participation in the primary care trust programme designed in a community in Manchester, UK. Standards were set for participating pharmacies and 40 out of 54 that participated reported that the pharmacy is an integral part of care delivery and so need to attain the best status towards meeting the set criteria. In this study, reasons given for premises not meeting the requirements were lack of a private consultation area, size of pharmacy not big enough for advanced services and lack of adequate funding.

Limitations

There were some study limitations. Firstly not all the participants consented to participate in the study. Secondly the results of this study were based solely on the responses of the participants. It was therefore impossible to verify the truth inherent in the responses of the participants. Thirdly, the curriculum for training of pharmacists has had very little content of First Aid and this may have affected their understanding of and responses in certain aspects of the questionnaire. Finally some socio-demographic characteristics of respondents like gender and age were missed out.

The following recommendations are offered to facilitate the provision and utilization of FAC in community pharmacies.

Firstly, policy should be formulated to set standards for community pharmacies involved in the provision of FAC and those involved should be routinely inspected to ensure compliance.

Secondly, there should be commitment from all stakeholders involved in health promotion in order to ensure that there is prompt attention in terms of evacuation and referral of victims.

Thirdly, the curriculum of training of pharmacists at both graduate and post graduate level should incorporate FAC knowledge. There should also be

opportunities for certified updates too.

Finally, availability of adequate space for FAC should be one of the criteria for certification of a community pharmacy by the Pharmacists Council of Nigeria.

CONCLUSION

Community pharmacists in the two study areas attend to a large number of accident and emergency conditions affecting members of the public through the provision of FAC. The pharmacists demonstrated some knowledge of first aid care and are willing to practice it more effectively if properly trained and other challenges are addressed. There is a need to sensitize policymakers and stakeholders to ensure that good quality FAC services are made available in the community pharmacies by giving comprehensive training on FAC to community pharmacists and formulating policies to address the challenges in the practice of FAC.

ACKNOWLEDGEMENTS

Acknowledgement is due to Pharmacists Council of Nigeria, Lagos State Pharmaceutical Society of Nigeria, Lagos State Association of Community Pharmacists of Nigeria and all Community Pharmacists in Kosofe and Ikeja Local Government areas that participated in this Study.

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