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RESEARCH ARTICLE

PHARMACISTS' PERSPECTIVE ON HIV TESTING SERVICES IN COMMUNITY PHARMACIES IN MASERU, LESOTHO

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ABSTRACT

Objective: To assess pharmacists' perspectives on offering HIV (human immunodeficiency virus) testing services in community pharmacies in Maseru, Lesotho.
Methods: A qualitative study was conducted among pharmacists working in community pharmacies around Maseru urban area in Lesotho. A semi-structured questionnaire was used to collect data in a face-to-face interview with pharmacists. Statistical package for social sciences (SPSS®) version 16.0 was used to analyze collected data.
Results: Out of 40 respondents, 32 (80.0%) do not offer HIV testing and counseling services and 35 (87.5%) thought rapid HIV testing should be offered in community pharmacies. 27 (67.5%) respondents said it was possible to offer HIV testing services in community pharmacies and 22 (55.0%) respondents said community pharmacies were not ready to offer HIV testing services. Of the 40 respondents, 11 (27.5%) were trained in HIV testing and counseling and most respondents (31, 77.5%) felt comfortable to offer HIV testing services.
Conclusion: Pharmacists in community pharmacies were willing to offer HIV testing and counseling although majority of pharmacists did not offer these services as they thought community pharmacies were not ready and also due to lack of pharmacists education on HIV testing and counseling.

Key words: HIV testing, community pharmacies, pharmacists

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INTRODUCTION

Lesotho has the highest adult HIV prevalence (22.7%) in the world.[1] In Lesotho, voluntary counseling and testing (VCT) program is one of HIV/AIDS prevention strategies in place. The success of the VCT program relies on widely accessible HIV testing and counseling services at health facilities as well as in the community (Labhardt *et al.,* 2014). The government of Lesotho through the Ministry of Health (MOH) is determined to achieve and contribute to diagnosing 90% of people living with HIV by 2020 (National guidelines on the use of antiretroviral therapy for HIV prevention and treatment 5th edition 2016). Access to HIV testing has been facilitated by expanding HIV testing to community services and healthcare settings outside specialist services such as community pharmacies to make HIV testing more accessible to the general population (Ryder *et al.,* 2013). Majority of the population now prefer to use community pharmacies as opposed to hospitals due to prompt services, accessibility, convenience and non-stigmatization (Ryder *et al.,* 2013).

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Little is known about the attitudes of community pharmacists towards provision of HIV testing services in community pharmacies. Therefore, the objective of this study was to assess the pharmacists' perspective on community pharmacies providing HIV testing services in Maseru, Lesotho. The study intended to determine the feasibility, readiness and acceptability of the community pharmacists in offering HIV testing services. As a result, the research question was formulated as follows: are community pharmacies in Maseru, Lesotho providing HIV testing services, is it possible and convenient to offer HIV testing services in community pharmacies, and are community pharmacists ready to offer HIV testing services? Many people refuse health center based HIV testing and counseling (HTC) due to stigmatization and discrimination. Thus, the rational of this study was to assess the importance of community pharmacies in an integrated approach to HIV/AIDS services from the pharmacist's point of view. Lesotho has the highest HIV prevalence and the basis of fighting the endemic is through HIV testing thus making universal coverage and accessibility of HIV testing is vital. This study is important because it will help improve community pharmacy based HIV testing services in Lesotho and increase accessibility of HIV testing services to the

population. With increased accessibility of HIV testing services, Lesotho will be able to meet the global target of diagnosing 90% of people living with HIV by 2020(National guidelines on the use of antiretroviral therapy for HIV prevention and treatment 5th edition 2016).

MATERIALS AND METHODS

The study was conducted at community pharmacies in Maseru urban area in Lesotho. This was a qualitative study where data on the pharmacists' perspective on offering HIV testing services in community pharmacies were collected from the pharmacists at a single point in time (from March to May 2017). The target population consisted of all male and female pharmacists working in community pharmacies situated in Maseru urban areas. A total of 40 registered community pharmacies were found in Maseru urban area which formed the study population. No sampling method was used. Inclusion criteria were as follows: pharmacists working in registered community pharmacies, pharmacists registered with Lesotho Medical Dental and Pharmacy Council (LMDPC), and have a minimum of six months working experience in community pharmacies. Exclusion criteria were pharmacy technicians, non-pharmacy degree holders and pharmacy students working in community pharmacies. A semi-structured questionnaire with both open- and closed-ended questions was used as a data collection tool. Extensive literature review of similar studies was conducted during the development of the semi-structured questionnaire that assisted in coming up with unambiguous questions. Additionally, an assessment tool from a study titled Australian pharmacists' willingness to conduct rapid HIV testing in community pharmacies was used (Santella *et al.,* 2016). The questionnaire was prepared in English language. Pharmacists working in community pharmacies were provided with information about the study and informed consent forms. The pharmacists who gave their informed consent participated in the study. The researchers then conveniently conducted face-to-face interviews using a semi-structured questionnaire at the community pharmacies in a secluded office space. Data was collected from March to May 2017 using semi-structured questionnaires in a face-to-face interview. The data were analysed using SPSS® version 16. Descriptive statistics (frequencies and percentages) was used. Ethical approval was granted by the Local Research Ethics Committee of the National University of Lesotho (NUL) and the Ministry of Health Research and Ethics Committee of Lesotho, registration number 188-2016. Good will permission to conduct the study was obtained from the community pharmacies owners. The study participants gave their informed consent.

RESULTS

Table 1 shows that the majority (19, 47.5%) of respondents were in the 30-35 years age group range and the majority (21, 52.5%) of respondents were female. Most (19, 47.5%) respondents worked as community pharmacists for more than 24 months and about two thirds (35, 87.5%) of respondents had a bachelor of pharmacy (honours). Table 2 indicates that about two thirds (32, 80.0%) of community pharmacies do not offer HIV testing and counseling services. The majority of community pharmacies do not offer HIV testing and counseling services due to lack of counsellor (5, 12.5%), and lack of counsellors, space and equipment (5, 12.5%). Table 3 shows that most (35, 87.5%) respondents think HIV testing and counseling should be offered at community pharmacies and the main (10, 25.0%) reason being that community pharmacies were easily accessible.

Table 1.Demographic Information

Age Group	Frequency (n)	Percentage (%)
20-25 years	6	15.0
25-30 years	11	27.5
30-35 years	19	47.5
35-40 years	0	0
Above 40 years	4	10.0
Total	40	100.0
Sex	**Frequency (n)**	**Percentage (%)**
Male	19	47.5
Female	21	52.5
Total	40	100.0
Duration As Community Pharmacist	**Frequency (N)**	**Percentage (%)**
6-12 months	8	20.0
12-18 months	8	20.0
18-24 months	5	12.5
Above 24 months	19	47.5
Total	40	100.0
Educational Level	**Frequency (n)**	**Percentage (%)**
Bachelor of pharmacy	3	7.5
Bachelor of pharmacy (honours)	35	87.5
Master of pharmacy	2	5.0
Total	40	100.0

Table 2. Provision of HIV Testing Services in Community Pharmacies

Do You Offer HIV Testing And Counseling In Your Pharmacy?	Frequency (N)	Percentage (%)
Yes	8	20.0
No	32	80.0
Total	40	100.0
Reasons For Not Offering HIV Testing And Counseling In Your Pharmacy	**Frequency (N)**	**Percentage (%)**
No response (respondents who offer HIV testing and counseling)	8	20.0
No reasons provided for respondents who do not offer HIV testing and counseling	4	10.0
Lack of counseling skills for pre and post HIV testing	3	7.5
Standards required by the Lesotho health care policies are not clear and not easy to access	1	2.5
Lack of testing equipment	4	10.0
Lack of staff	3	7.5
Lack of counsellors, space and equipment	5	12.5
Lack of counsellor	5	12.5
No enquiries or efforts have been made to establish HIV testing services	1	2.5
Was not granted permission by the Ministry of Health	3	7.5
Lack of space to conduct HIV testing and counseling	1	2.5
Lack of registers for keeping records and statistics of clients	1	2.5
HIV testing and counseling is free at government health facilities	1	2.5
Total	40	100.0

Table 4 shows that more than half (27, 67.5%) of respondents said it was possible and practical to conveniently and easily offer HIV testing and counseling in community pharmacies and the main (8, 20.0%) reason being accessibility of community pharmacies to patients and availability of space to conduct HIV testing and counseling. Table 5 indicates that more than half (22, 55.0%) of respondents do not think community pharmacy are ready to offer HIV testing and counseling as indicated in the Lesotho HIV guidelines. The major (10, 25.0%) reason for community pharmacies not being ready to offer HIV testing and counseling is lack of training on HIV testing and counseling for pharmacists. Table 6 indicates that the majority (29, 72.5%) of respondents did not undergo any training on HIV testing and counseling. Although, the majority (31, 77.5%) of respondents said that they would feel comfortable to

offer HIV testing and counseling to clients especially those with positive results.

Table 3. Thoughts of Community Pharmacists on Whether HIV Testing and Counseling Should Be Offered At Community Pharmacies

Do You Think HIV Testing And Counseling Should Be Offered At Community Pharmacies?	Frequency (N)	Percentage (%)
Yes	35	87.5
No	2	5.0
Not yet	3	7.5
Total	40	100.0
Reasons For Offering HIV Testing And CounselingIn Community Pharmacy.	**Frequency (N)**	**Percentage (%)**
Patients prefer to go to community pharmacies and not clinics/hospitals, lack of queues in community pharmacies	8	20.0
Most confidential, safes time, easily accessible	9	22.5
Easily accessible	10	25.0
Health system of Lesotho not ideal for community pharmacies to offer HIV testing	2	5.0
Allows referral of positive patients to hospitals to start treatment	1	2.5
Lack of private space for HIV testing and counseling	1	2.5
People will know their HIV status before the progression of the disease	1	2.5
Increases awareness of HIV	1	2.5
Yes but at a cost to compensate for procurement of test kits and services	1	2.5
Time consuming, costly and tedious	1	2.5
People view community pharmacies as health institutions that offer HIV testing	3	7.5
Community pharmacies with qualifies professionals should offer HIV testing and counseling	1	2.5
Pharmacists should be trained on HIV testing and counseling	1	2.5
Total	40	100

Table 4. Possibility and Practicality of Conveniently and Easily Offering HIV Testing and Counseling in Community Pharmacies

Is It Possible And Practical To Conveniently And Easily Offer HIV Testing And Counseling In Community Pharmacies?	Frequency (N)	Percentage (%)
Yes	27	67.5
No	3	7.5
Not yet	10	25.0
Total	40	100.0
Reasons For Possibility And Practicality Of Conveniently Offering HIV Testing And Counseling In Community Pharmacies	**Frequency (N)**	**Percentage (%)**
No response	3	7.5
Patients request for HIV testing at community pharmacies, patients do not like going to clinics/hospitals	4	10.0
Privacy at the community pharmacy	2	5.0
Community pharmacy setup not yet conducive to offer HIV testing and counseling	4	10.0
Pharmacists are trained to maintain a higher level of discretion and communication skills	1	2.5
Accessibility to patients and availability of space in community pharmacies	8	20.0
Accessibility to patients	6	15.0
Lack of staff	3	7.5
Pharmacists not trained on HIV testing and counseling	3	7.5
Patients need to know their status to avoid spreading HIV	1	2.5
HIV testing is costly	1	2.5
Need for community sensitization and mobilization	1	2.5
Provided there is additional in-service training for pharmacists	3	7.5
Total	40	100.0

Table 7 shows that about one third (12, 30.0%) of respondents said that the main reason for minimal involvement of community pharmacies in HIV testing and counseling in Lesotho is due to lack of training on HIV testing and counseling for pharmacist.

Table 5. Readiness of Community Pharmacies to Offer HIV Testing and Counseling as Indicated In the Lesotho HIV Guidelines

From Your Experience And Observation, Are Community Pharmacies Ready To Offer HIV Testing And Counseling?	Frequency (N)	Percentage (%)
Yes	18	45.0
No	22	55.0
Total	40	100.0
Reasons For Readiness Of Community Pharmacies To Offer HIV Testing And Counselling	**Frequency (N)**	**Percentage (%)**
No response	2	5.0
Patients do not like spending the whole day queuing at the clinics/hospitals	1	2.5
Availability of HIV testing equipment	4	10.0
Pharmacists that have counseling skills	2	5.0
Community pharmacy setting not in shape to perform HIV testing and counseling	8	20.0
Lack of training on HIV testing and counseling for pharmacists	10	25.0
Most pharmacists are adequately trained in HIV testing	5	12.5
Lack of experience thus pharmacists are uncomfortable to tell people about their status	1	2.5
Lack of staff	3	7.5
Availability of supervision to maintain and evaluate efficiency of HIV testing and counselling	1	2.5
Community pharmacies attract customers	1	2.5
Community pharmacies have extra space for HIV testing and counseling	2	5.0
Total	40	100.0

Table 6. Training of Pharmacists on HIV Testing and Counseling

As A Pharmacist Have You Undergone Any Training On HIV Testing And Counseling?	Frequency (N)	Percentage (%)
Yes	11	27.5
No	29	72.5
Total	40	100.0
Type Of Training On HIV Testing And Counseling Taken By Pharmacists.	**Frequency (N)**	**Percentage (%)**
No response (Pharmacists who did not go for training on HIV testing and counseling)	27	67.5
As a course at the National University of Lesotho	3	7.5
HIV testing and counselling	4	10.0
Test and treat training and quality control of HIV test kits	2	5.0
Training on HIV counseling and not HIV testing	2	5.0
Training on home self-test kits and new guidelines on confirmation of results	2	5.0
Total	40	100.0
Would You Feel Comfortable To Offer HIV Testing And Counseling To Clients Especially Those With Positive Results?	**Frequency (N)**	**Percentage (%)**
Yes	31	77.5
No	9	22.5
Total	40	100.0

Table7. Minimal Involvement of Community Pharmacies in HIV Testing and Counseling In Lesotho

Reasons For Minimal Involvement Of Community Pharmacies In HIV Testing And Counseling In Lesotho	Frequency (N)	Percentage (%)
No response	3	7.5
Lack of specialized personnel, limited space	9	22.5
Lack of HIV testing and counseling skills	1	2.5
The Ministry of Health does not appreciate pharmacy as an existing profession	6	15.0
Lack of training on HIV testing and counseling for pharmacists	12	30.0
Information dissemination to all stakeholders in Lesotho is poor	1	2.5
Costly to offer HIV testing and counseling services4	4	10.0
Lack of functional processes that encourage government and private sector partnership	2	5.0
The Ministry of Health does not allow community pharmacists to offer HIV testing services	2	5.0
Total	40	100.0

Table 8. Implementation and Reinforcement of Community Pharmacies Involvement in HIV Testing and Counseling

What Needs To Be Done To Implement And Reinforce Community Pharmacy Involvement In HIV Testing And Counseling?	Frequency (N)	Percentage (%)
No response	2	5.0
In-service training for pharmacists in community pharmacies on HIV testing and counseling	25	62.5
Appreciation of existence and importance of pharmacy in the Lesotho health care system	6	15.0
Should be mandatory to all stakeholders to offer HIV testing and counseling services	1	2.5
Government should offer financial assistance to community pharmacies	2	5.0
Encouragement of community pharmacists to do more extended roles of the pharmacist	1	2.5
Training of community pharmacists and availability of private counseling rooms	3	7.5
Total	40	100.0

Table 8 shows that about two thirds (25, 62.5%) of respondents said that in-service training for pharmacists in Community pharmacies on HIV testing and counseling will need to be implemented and reinforced.

DISCUSSION

The objective of our study was to assess the pharmacists' perspective on community pharmacies providing HIV testing services in Maseru, Lesotho. The research question of our study was formulated as follows: are community pharmacies in Maseru, Lesotho providing HIV testing services, is it possible and convenient to offer HIV testing services in community pharmacies, and are community pharmacists ready to offer HIV testing services? Both the objective and research question were achieved by determining the feasibility, readiness and acceptability of the community pharmacists in offering HIV testing services. In our study, the majority of respondents were in the age group range of 30-35 years. The majority of respondents were female. The respondents mostly worked as community pharmacists for more than 24 months and about two third of respondents had a degree in bachelor of pharmacy (honours). Our study showed that about two thirds of community pharmacies do not offer HIV testing and counseling services. The main reason for not offering HIV testing and counseling services was dueto lack of counsellors, space and equipment. In a study by Ryder *et al.* some of the challenges of providing pharmacy-based HIV testing included staffing, lack of insufficient consultation space and their findings were consistent with our study findings (Ryder *et al.,* 2013). Therefore, our study findings suggested that most community pharmacies in Maseru do not offer HIV testing and counseling services due to lack of counsellors, space and equipment. In our study, most respondents thought HIV testing and counseling should be offered at community pharmacies. The main reason provided by respondents was that community pharmacies were easily accessible to clients. Our findings were in agreement with finding in a study by Ryder *et al.* where community pharmacists accepted the idea of pharmacy-based HIV testing as it was accessible, convenient, and non-stigmatizing (Ryder *et al.,* 2013). Study by Amesty *et al.* showed that pharmacies may be anaccessible health resource for HIV testing and their findings were consistent with finding in our study (Amesty *et al.,* 2015). Our study also revealed that more than half of respondents said that it was possible and practical to conveniently and easily offer HIV testing and counseling in community pharmacies because community pharmacies were accessible to clients and there was space available in community pharmacies for conducting HIV testing and counseling. A study conducted by Weidle *et al.* in the United States showed that it was feasible to offer rapid point-of-care HIV testing in community pharmacies and retail clinics and these findings were consistent with findings in our study.[7]Our study findings were also consistent with findings in a study by Calderon *et al.* which showed that implementing a rapid HIV testing program in community pharmacies was feasible.[8]Our study finding were also consistent with findings in a study by Fernández-Balbuena *et al.* which showed that in-pharmacy HIV testing programs had capacity of reaching and diagnosing previously untested populations, not only a priority population such as men who have sex with men (MSM) but also heterosexual population who are more affected by delayed diagnosis (Fernández-Balbuena *et al.,* 2015). Therefore, our study findings suggested that it was possible and convenient for community pharmacies to offer HIV testing and counseling services although, the majority of community pharmacies did not offer HIV testing and counseling services. Our study revealed that more than half of respondents thought that community pharmacies were not ready to offer HIV testing and counseling as indicated in the Lesotho HIV guidelines due to lack of training on HIV testing and counseling for pharmacists. Our findings were consistent with those by Pineda *et al.* where community pharmacists from urban and rural areas in New Mexico did not demonstrate adequate HIV screening or in-home HIV test knowledge (Pineda *et al.,* 2015). Our study also showed that the majority of respondents were not trained in HIV testing and counseling. Additionally, our study revealed that majority of respondents said that they would feel comfortable to offer HIV testing and counseling to clients especially those with positive results. Our findings were consistent with findings of Weidle *et al.* where staff at the community pharmacies demonstrated willingness and ability to provide confidential HIV testing to patients (Weidle *et al.,* 2014).Therefore, due to community pharmacists being comfortable to offer HIV testing and counseling to clients with positive results, this suggested that they were willing to offer HIV testing and counseling.

In our study, about one third of respondents said that the main reason for minimal involvement of community pharmacies in HIV testing and counseling in Lesotho is due to lack of training on HIV testing and counseling for pharmacist. Our study also revealed that about two thirds of respondents said that in-service training for pharmacists in community pharmacies on HIV testing and counseling will need to be implemented and reinforced. Our study findings were similar to finding in a study by Ryder *et al.* where participants stated that one of the challenges to providing HIV testing in community pharmacies was need for additional training (Ryder *et al.,* 2013). The findings in our study were also consistent with findings in a study by Dugdale *et al.* which revealed that pharmacists nationwide should also receive training to assist with risk reduction counseling and linkage to care for customers purchasing the new over-the-counter HIV test (Dugdale *et al.,* 2014). Therefore, our study findings suggest that pharmacists in community pharmacies were ready to offer HIV testing and counseling provided training on HIV testing and counseling was offered to pharmacists in community pharmacies. The limitation of our study was that some pharmacists thought they would be in trouble with the Ministry of Health of Lesotho for participating in our study. This was addressed by reassuring the participants that codes will be used and not their names and names of community pharmacies they worked for to maintain

confidentiality and anonymity. The findings of our study could be generalized nationally because most community pharmacies in Lesotho were situated in Maseru urban area.

Conclusion

Although most community pharmacies in Maseru, Lesotho were not providing HIV testing services, it was possible and convenient for community pharmacies to offer HIV testing services due to accessibility of community pharmacies to clients and availability of space in community pharmacies to carry out HIV testing services. Most pharmacists in community pharmacies were not ready to offer HIV testing services due to lack of training on HIV testing and counseling but they were willing to offer HIV testing services in community pharmacies provided in-service training on HIV testing and counseling was given to community pharmacists. Additionally, in-service training for pharmacist on HIV testing and counseling will improve the involvement of community pharmacies in HIV testing and counseling in Lesotho. Suggestions from our study were that training of pharmacists on HIV testing and counseling is vital to improve involvement of community pharmacies in HIV testing and counseling in Lesotho. Therefore, training institutions such as the National University of Lesotho should include HIV testing and counseling in the curriculum of the pharmacy program. Additionally, the National University of Lesotho together with the Ministry of Health of Lesotho should develop a module on HIV testing and counseling for pharmacists working in community pharmacies and conduct trainings for all pharmacists working in community pharmacies throughout the country. Additionally, research that identifies individual and structural barriers and facilitators of in-pharmacy HIV testing that can directly inform HIV testing programs for all customers at pharmacies should be conducted.

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