COMPARATIVE STUDY OF THE COMMUNITY PHARMACISTS KNOWLEDGE AND SKILLS TO THEIR WILLINGNESS IN RENDERINGTOBACCO SMOKING PREVENTION AND CESSATION PROGRAM IN ENUGU METROPOLIS

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ABSTRACT

Introduction: Tobacco smoking is a common global public health problem that frequently leads to disease complications and often results to untimely deaths. The community pharmacists consistently encounter patients that smokes. In other words, he has the potential to identify smokers, counsel them, and dispense pharmacological agents for treatment of tobacco smoking dependence. **Objectives:** The purpose of the research was to compare the knowledge and skills of community pharmacists to their willingness in rendering in rendering tobacco prevention and cessation services. **Method:** It was a cross-sectional study among conveniently selected community pharmacists in Enugu metropolis using questionnaire, from January 2022 through March 2022 and a total of 61 subjects completed the study. The questionnaire contained sections A and B. Section A contained the pharmacists demographics, while section B contained 3 questions with "Yes" or "No" answers, and ten questions on 5-likert scale (3 items each on knowledge and skills, 4 items on attitude). The questionnaire was coded, checked for accuracy and analyzed using SPSS version 22 for windows. **Results:** The response rate was about 85% where 75 subjects showed willingness to participate, but 61 subjects completed the study. All the participants were community pharmacists, Male (62.3%), Female (37.7%), B.Pharm (75.4%), PharmD (16.4%), Msc (6.6%), PhD (1.6%). Results showed no significant difference between the community pharmacists' knowledge and skills towards their willingness to render tobacco cessation services. **Conclusion**: The community pharmacists' knowledge and skills does not determine their willingness in rendering tobacco smoking cessation services. Further research may be needed on a larger population over a longer period of time.

Keywords: Community Pharmacists, Skills, Knowledge, Willingness, Tobacco smoking.

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Background of the Study

Tobacco smoking is a global public health problem that has been reported to be killing as much as 6million people yearly (1). The prevalence varies across countries but as at 2015, it was estimated that there was about 20.2% global prevalence, with Males 34.1% and Females 6.4% (2). The target was to reduce the overall prevalence to 15.5% with 25.6% for Males and 5.3% for Females in 2025 (2). On the other hand, it appears that the prevalence is decreasing in almost all regions except in WHO Africa and East Mediterranean region (2). Nigeria is the most populated country in Africa and has one of the leading tobacco market on the continent, with more than 1.8 billion cigarettes sold yearly amounting to about 2.9million daily Nigeria smokers (3). Moreover, the community pharmacists are in viable position to render various services (4) including tobacco smoking cessation program. Research conducted in other countries like Sudan, Indonesia, Thailand, Poland, USA and Canada have shown the importance of community pharmacists in rendering tobacco smoking cessation program (5,6). However there is paucity of data on the knowledge, skills and willingness of community pharmacist in rendering tobacco smoking cessation in Nigeria, thereby bringing about the need for this study.

Statement of the Problem

Upon the advertisement on the dangers of smoking, yet in Nigeria about 2.9million individuals smokes every day (3), over 6million annual deaths have resulted from direct tobacco use while approximately 0.9million deaths were due to the exposure to second hand smokes (7), hence without urgent action the death toll could rise to greater than 8million by 2030(1). Each year, more than 8 million people worldwide die from diseases linked to smoking tobacco products, and as such, smoking is recognized as a serious health threat (7). Yet, there are few studies conducted on Nigeria community pharmacists who frequently encounter patients that smokes.

Justification of the study

Community pharmacists' knowledge and reactiveness in tobacco smoking cessation improves outcomes (8). Moreover, community pharmacists have improved in rendering tobacco smoking cessation program by broadening their scope of services which includes conventional medicine supply, variety of specialized service such as health screening and disease management (4, 9, 10). Since the community pharmacist is one of the few health care professionals who have regular interactions with large number of people in health as well as in sickness (11, 12), It is expected of them to improve their knowledge on tobacco harm reduction (13). Studies done in countries like,Sudan, Indonesia,Thailand, Poland, United States of America and Canada show that community pharmacists play important role in smoking cessation (5, 6). Therefore, it is pertinent to conduct a study on Nigeria pharmacists in other to show their willingness in rendering the services. Hence this study.

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Aim

The aim of this study is to compare the knowledge and skills of community pharmacists with their willingness towards rendering tobacco smoking prevention and cessation program..

Objectives:

The specific objectives are:

1) To evaluate the pharmacists knowledge and skills on the treatment of tobacco smoking.

2) To access the willingness of the pharmacists in rendering tobacco smoking cessation services.

METHODS

Study site: The study was conducted in Enugu Metropolis, South Eastern part of Nigeria from January 2022 through March 2022. Enugu city is popularly known as coal city, and is located in the South-Eastern part of Nigeria with latitude 6.00 N and 7.00N and longitude 7.00E and 7.45E with a population of about 722,664 according to the last census done in Nigeria in 2006. However, there is no current population record but the population can be considered dense and increasing. Christianity is the residents' major religion while Igbo language is the dominant language alongside Nigerian English popularly known as pidgin.

Study Instruments

The questionnaire contained two sections: Sections A and B. Section A contained the respondents' demographic details, while Section B contained questions on Knowledge, skills, and willingness. The questionnaire was validated by two community pharmacists and two clinical Pharmacy lecturers. Various contributions and amendments were made before the questionnaires were ready for distribution.

Study Design:

It was a cross-sectional survey using questionnaire to collect information regarding the pharmacists' knowledge, skills, and willingness towards rendering tobacco smoking cessation services.

Inclusion criteria:

(i) Pharmacists in community pharmacy settings in Enugu metropolis.

Exclusion criteria:

(i) Pharmacists that are not in community pharmacy setting.

(ii) Community pharmacists practicing outside Enugu Metropolis.

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Study population description: The Study was carried out amongst conveniently community pharmacists practicing in Enugu metropolis. As at 2019, there were about 120 registered pharmacists in Enugu State, but the present record of the number of pharmacists in community settings was not received as at the time of this study.

Data Collection

To ensure fair representation for the purpose of the study, Enugu metropolis was divided into 5 strata and the aim was to distribute 15 questionnaires to conveniently selected pharmacists in each stratum. The questionnaire contained Sections A and B. Section A contained the pharmacists demographics with "yes" or "No" questions, while Section B contained ten questions on 5-Likert scale (3 items each on knowledge and skills, 4 items on attitude).

Data analysis:

Each questionnaire was coded, checked for accuracy and analyzed using Statistical Package Social Science (SPSS) version 22.0 for windows. The analysis included code transcripts, and frequencies of discrete variables. Assessment of Statistical significance considering the patient knowledge, skills, and willingness was done using Spearman rank coefficient for the ordinal data to correlate the independent variables and dependent variable, assuming there is a significant difference if P-value was less than 0.05.

Ethical Consideration

The respondents were made aware that their participation was voluntary and they had the right to refuse or discontinue, and the investigator can terminate a subject's participation if the subject met an exclusion criterion, either by providing false information or not following study procedure. A study code for the purpose of data was used to ensure confidentiality of information. Ethical clearance was obtained from ESUT Teaching Hospital Committee.

RESULTS

The percentage of the response can be said to be considerably high, about 85%. Out of 75 pharmacists that gave consent to participate in the study, 61 completed the study while 14 defaulted. The reasons for the default include: Travelled with the questionnaire (3), Could not find the questionnaire and was not in office (7), was unable to complete the questionnaire (4).

Demographic Data of the respondents

The demographic features of the respondents included – Gender, age, religion, and ethnicity. It showed that of the 61 subjects that successfully completed the questionnaire, 38 (62.3%) were Males and 23 (37.7%) were Females. Majority of the respondents were aged 31to 40 (46%) , majority had B.Pharm as their highest educational qualification (75%), while majority had between I to 9 years job experience (57%).. Virtually all the participants were Christians (92%) and Ibos (96.7%). However, as much as 75.4% respondents admitted that they had no additional training on tobacco smoking cessation, 82% admitted that there was no system in place to ask about smoking at every visit in their pharmacy, while 70.5% did not have smoking cessation resources available in their pharmacy

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Item questions response

Knowledge and Willingness

The results show that there was a non-significant predictor of knowledge and attitude since for every one unit increase in the willingness, there is a predicted increase of 0.137 in the Log odds of being at a higher level on knowledge (Table 1). Results also show that the odd ratio of being at the higher level on willingness increases by a factor 1.147 for every one unit increase in knowledge. The correlation between the knowledge and willingness using Spearman rank coefficient is 0.135 (Table 2) which indicates weak correlation, and it is non-statistically significant (0.301) (Table 2).

Skills and Willingness

The results show that there was no significance since for every one unit increase in the willingness, there is a predicted increase of 0.208 in the Log odds of being at the higher level on the skills (Table 1). The result also show that the odd ratio of being in a higher level on attitude increase by a factor 1.231 for every one unit increase on skill (Table 2). Using the Spearman rank coefficient, the correlations between the skills and willingness is 0.017 which also indicates weak correlation, and it is non-statistically significant (0.896) (Table 2).

Table 1 – Parameter Estimates

Parameter Estimates

			95% Wald Confidence Interval		Hypothesis Test				95% Wald Confidence Interval for Exp(B)	
Parameter	B	Std. Error	Lower	Upper	Wald Chi-Square	df	Sig.	Exp(B)	Lower	Upper
Threshold [C=2.25]	-2.984	1.7804	-6.474	.505	2.809	1	.094	.051	.002	1.658
[C=2.50]	-1.847	1.5900	-4.964	1.269	1.350	1	.245	.158	.007	3.557
[C=2.75]	-.648	1.5111	-3.609	2.314	.184	1	.668	.523	.027	10.114
[C=3.00]	.234	1.4939	-2.694	3.162	.025	1	.875	1.264	.068	23.629
[C=3.25]	1.016	1.5027	-1.930	3.961	.457	1	.499	2.761	.145	52.499
[C=3.50]	1.993	1.5206	-.988	4.973	1.717	1	.190	7.335	.372	144.467
[C=3.75]	3.547	1.5804	.449	6.644	5.037	1	.025	34.708	1.567	768.516
[C=4.00]	5.231	1.8234	1.658	8.805	8.231	1	.004	187.029	5.246	6667.340
A	.137	.3555	-.560	.834	.149	1	.700	1.147	.571	2.302
B	.208	.4425	-.659	1.075	.221	1	.638	1.231	.517	2.931
(Scale)	1[a]									

A – KNOWLEDGE, B – SKILLS, C - WILLINGNESS

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Table 2 – Spearman Rank Correlation Coefficient

Correlations

			A	B	C
Spearman's rho	A	Correlation Coefficient	1.000	.330**	.135
		Sig. (2-tailed)	.	.009	.301
		N	61	61	61
	B	Correlation Coefficient	.330**	1.000	.017
		Sig. (2-tailed)	.009	.	.896
		N	61	61	61
	C	Correlation Coefficient	.135	.017	1.000
		Sig. (2-tailed)	.301	.896	.
		N	61	61	61

A – KNOWLEDGE, B – SKILLS , C - WILLINGNESS

DISCUSSIONS/CONCLUSION/RECOMMENDATION

DISCUSSION

Several factors may be responsible for the high response by the subjects and they include the simplicity of the questionnaire, allowing each respondent to fill the questionnaire at his or her convenience, and consistent reminder to the respondent to fill the questionnaire on occasions where there was no immediate response. Although the major role of the pharmacists is dispensing, the role has expanded whereby they are expected to make various interventions including educational interventions (4, 12) and as well take responsibility for their actions. It is expected that the vast knowledge and skills they acquire in the course of their practice can enhance their willingness to render health services. The result obtained is consistent with the study done in India (14, 15) that showed that majority of the pharmacists that were respondents admitted that do not ask their patients about their smoking habits and they were as well unfamiliar with a number of the state public health programs on smoking prevention and cessation.

CONCLUSION

It can be concluded that the knowledge and skills on tobacco smoking cessation acquired by community pharmacists through their various trainings did not influence their willingness to render the services in their practice settings.

LIMITATIONS OF THE STUDY

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Although the research was diligently conducted, some limitations were observed. First, the findings were from fraction of those that participated and may not represent the general view of all the community pharmacists practicing in Enugu. Second, the sample size used is small, 61. Third, there was no clear-cut room given for filling the questionnaire at the time of convenience.

RECOMMENDATIONS

Based on the findings and conclusions of the study, we recommend the following:

1) Further research should be undertaken on all the community pharmacists in Enugu metropolis over a longer period of time in other to explore their general view on tobacco smoking prevention and cessation programs.

2) Further trainings that can encourage the community pharmacists' willingness to render tobacco smoking prevention and cessation programs should be compulsory in the Mandatory Compulsory Pharmacy Education organized by the Pharmacists Council of Nigeria.

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AUTHORS CONTRIBUTIONS

All the authors participated in writing the article, conduction of the study and collection of the data while Ofor, A.C served as the corresponding author.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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