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COMMUNITY PHARMACY INSURANCE: KNOWLEDGE, ATTITUDES AND PRACTICES OF COMMUNITY PHARMACISTS IN NIGERIA

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ABSTRACT

Small and medium enterprises in Nigeria face high level of risks, such as fire outbreaks and theft that require proper risk management efforts. The study objectives were to determine insurance knowledge, attitudes and practices of Nigerian community pharmacists and their associated factors. This was a questionnaire-based cross-sectional survey of Nigerian community pharmacists. The study data were analysed using descriptive statistics (frequency, percentages and mean) and inferential statistics (Pearson correlation test and multivariable binary logistic regression analyses). A $p < 0.05$ was considered statistically significant. An overwhelming proportion (90.5%) of the pharmacists had low knowledge, 388 (83.6%) had positive attitudes and 284 (61.2%) had negative practices towards insurance. Age between 23–42 years (AOR 2.6; 95% CI 1.3–5.6) and undergraduate degree as the highest qualification were significant predictors of poor knowledge (AOR 9.6; 95% CI 4.0–23.1), while female gender (AOR 3.1; 95% CI 1.7–5.5), undergraduate degree as the highest qualification (AOR 2.8; 95% CI 1.4–5.5), work seminar on insurance (AOR 17.6; 95% CI 7.1–43.8), and unawareness of insurance companies, products and services (AOR 5.6; 95% CI 2.8–10.9) were significant predictors of negative attitudes towards insurance. In addition, female gender (AOR 2.2; 95% CI 1.4–3.3) and unawareness of insurance companies, products and services (AOR 1.8; 95% CI 1.1–2.9) were significant predictors of negative insurance practices. Most respondents had poor knowledge and negative practices towards community pharmacy insurance. Therefore, targeted interventions from various critical stakeholders are needed to enhance insurance knowledge and promote its uptake among community pharmacists in Nigeria.

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Keywords: Community Pharmacy, Community pharmacists, Insurance, Knowledge, Attitude, Practice, Nigeria

INTRODUCTION

Insurance is a type of risk management that is primarily used to mitigate the risk of devastating unforeseeable loss. Insurance is defined as the equitable transfer of loss risk from one entity to another in exchange for monetary compensation (Jaiswal ***et al.*** 2011). In Nigeria, social insurance preceded contemporary insurance (Tajudeen ***et al.*** 2009). Social insurance schemes existed in the form of social associations such as age grades and unions, as well as extended family systems.

Contemporary insurance in Nigeria was midwifed by the British in 1910, but it became more systematised in 1960, with formal regulation in 1961 (Akinbola and Isaac 2010). To enhance the operational performance of the insurance industry, recapitalisation was introduced. Following the completion of the 2006/2007 recapitalisation exercise, 27 insurance companies were recertified by the end of 2009 (Alani and Sani 2019). It is noteworthy that despite successes recorded in the commercial banking in Nigeria, the global insurance market ranking is still very low (Yusuf ***et al.*** 2009). In Nigeria, the insurance industry is divided into two categories: life insurance and non-life insurance. The Insurance Act of 2003 recognises four types of insurance businesses (The Federal Government of Nigeria 2003), namely life insurance, general insurance, composite insurance, and reinsurance. Insurance is said to be essential to a healthy economy. As a result, the importance and roles of the insurance industry in Nigeria cannot be overstated. The primary reason for this is the nature of the environment. Small and medium enterprises (SMEs) in Nigeria face high level of risks that require proper risk management efforts (Yusuf and Dansu 2013). By purchasing insurance policies, businesses such as SMEs, including community pharmacies, can have reliable risk coverage. Firms' financial strength is stabilised by insurance.

Survival of most community pharmacies in Nigeria have recently been threatened by fire outbreaks (Adenekan 2019; Fides Media 2020; Jide 2022; Sowole 2022) and other unreported threats such as theft, unprofessional conduct and negligence or mistakes during treatments. As a result, appropriate insurance coverage is required to protect community pharmacies/pharmacists from the aforementioned financial risk. Despite the numerous benefits associated with insurance, its uptake among Nigerian community pharmacists may be influenced by a lack of knowledge, a negative attitude and practice. To the best of our knowledge, no studies on this topic have been conducted in Africa, including Nigeria. Therefore, the present study aimed to determine the insurance knowledge, attitudes and practices of the Nigerian community pharmacists and their associated factors.

METHODS

Study Design and Setting

The cross-sectional online study was conducted among community pharmacists in Nigeria.

Target Population

This study was open to all Nigerian community pharmacists that belong to a state association's WhatsApp group.

Eligibility Criteria

Nigerian community pharmacists, being in active practice, and Association of Community Pharmacists of Nigeria and/or Pharmaceutical Society of Nigeria WhatsApp group membership of the state of practice. On the other hand, pharmacists practicing in other settings and those that are no longer in active practice were excluded from the study.

Sample Size Determination and Sampling Technique

A web-based sample size calculator (Raosoft) was used to determine the sample size. This was done using population size of 20,000, 95% confidence interval, 5% margin of error, and population proportion of 50%. The minimum sample size required for the study was 377 respondents. According to the state of practice, a convenience sample of community pharmacists' WhatsApp groups was generated.

Study Instrument

The survey instrument was developed based on information gathered from a review of literature (Insurance Information Institute 2005; Badru *et al.* 2013; Allodi *et al.* 2021; Alam *et al.* 2021). The initial 40-item questionnaire underwent construct, content and face validation by two professors of clinical and pharmacy practice, who provided their expert opinions with respect to its simplicity and importance. Two items were excluded by the experts due to lack of importance. The approved 38-item (12-item knowledge, 12-item attitude, and 14-item practice) questionnaire was pilot-tested among 20 community pharmacists that were not included in the main study. The overall mean reliability score of the questionnaire was 0.85 (knowledge domain = 0.94, attitude domain = 0.89 and practice domain = 0.73).

Ethical Considerations

The survey received ethics approval from the Research Review Board of the Faculty of Pharmacy, University of Maiduguri, Nigeria, with approval number RRB/FP/2022/010. All participants provided informed consent and participated voluntarily. Access to the survey questions was only granted if the participant checked a mandatory informed consent box. The anonymity and confidentiality of the collected data were assured to participants.

Data Collection

The survey data were collected over a 12-week period in 2022 using a Google Form and the WhatsApp platform. After four weeks of no response, the Google Form was deactivated. Data collected included participants' demographics (age, sex, highest qualification and years of practice experience), other basic characteristics (familiarity with insurance policies and awareness of insurance companies, sources of information about insurance, work/ career insurance education, current insurance status and reasons for not purchasing

insurance), and insurance knowledge, attitude and practice (KAP) information using the study questionnaire.

Data Processing

Respondents' ages were dichotomised based on their age distribution. For the actual knowledge items, each correct answer was given a score of 1 and the incorrect answer and "don't know" a score of zero. Thus, the minimum and maximum scores for actual knowledge were zero and 11. On the other hand, item 12, which was used to assess perceived overall knowledge, was rated on a scale of 0 to 10 points. The attitudes domain responses were recorded on a five-point Likert scale (1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree) with a score ranging from 12 to 60 points. Additionally, to calculate the overall attitude score, the negatively worded items 10 and 12 were reversed. The final section about practices regarding insurance had 14 items, each item was recorded on a five-point Likert scale (1 = strongly not typical of me; 2 = typical of me; 3 = neutral; 4 = typical of me; 5 = strongly typical of me) with a score range from 14 to 70 points. Better knowledge, attitudes or practices are indicated by higher points in each section. The total knowledge was categorised, using Bloom's cut-off point, as high if the score is between 80% and 100% (9–11 points), moderate if the score is between 60% and 79% (7–8 points) and low if the score is less than 60% (< 7 points) (Alam *et al.* 2021). The total attitude and practice were categorised as positive if the scores are ≥ 60% and negative when scores are < 60%. For the multivariable logistic regression analysis, good knowledge (high and moderate knowledge) was coded zero, while poor knowledge (low knowledge) was coded 1. Similarly, positive attitude and practice were coded zero, respectively, while negative attitude and practice were coded 1, respectively.

Data Analysis

The mean and standard deviation were used to summarise continuous data, while numbers and percentages were used to represent categorical variables. The correlation test was used to determine whether there was a relationship between knowledge, attitude and practice. The multivariable binary logistic regression analyses were performed to investigate potential predictors of poor knowledge, negative attitude and practice. A *p*-value less than 0.05 was chosen as the statistical significance level. For the statistical analysis, IBM SPSS version 21.0 for Windows software was used.

RESULTS

Respondents' Basic Characteristics

Six hundred community pharmacists were approached for the survey. Of this, 464 completed the survey giving a response rate of 77.3%. The mean age of respondents was 39.6 ± 8.7 years (range 23–62 years), 56.0% are male respondents and the majority had an undergraduate degree as the highest qualification (61.2%). Three hundred and thirty-two (71.6%) had 1–10 years of experience in community pharmacy practice. The main source of information about insurance was through insurance agents (26.0%), seminars (19.3%) and colleagues (15.6%). The basic characteristics profile of the respondents is detailed in Table 1.

Table 1: Basic characteristics of the respondents (n = 464).

Variable	n (%)
Age group (years)	
23–42	312 (67.2)
43–62	152 (32.8)
Sex	
Female	204 (44.0)
Male	260 (56.0)
Highest qualification	
Undergraduate degree	284 (61.2)
Postgraduate degree	180 (38.2)
Practice experience (years)	
1–10	332 (71.6)
>10	132 (28.4)
Seminar on insurance	
No	172 (37.1)
Yes	292 (62.9)
Awareness of insurance companies, products and packages	
No	152 (32.8)
Yes	312 (67.2)
Information sources about insurance	
Colleagues	120 (25.9)
Family/friends	80 (17.2)
Insurance agents	200 (43.1)
Workshops/seminars	148 (31.9)
Personal efforts	112 (24.1)
Mass media	108 (23.3)
Ever experienced fire outbreak and/or theft in community pharmacy	
No	308 (66.4)
Yes	156 (33.6)

Knowledge Score Related to Insurance

The mean overall knowledge score of the respondents was 3.6 ± 2.1 (range 0–11). This study revealed that an overwhelming number of the respondents (n = 420, 90.5%) had low knowledge about insurance. Thirty-six respondents (7.8%) had moderate knowledge, while only 8 (1.7%) had high knowledge about insurance. Only 11.2% answered correctly the insurance type that covers the cost of injury or damages incurred by anyone inside the

premises due to errors on the part of the community pharmacy setting or staff. Conversely, most of the respondents (78.4%) answered correctly that insurance is a method to reduce financial risk (Table 2). There was a significant strong direct positive correlation between respondents' rating of their insurance knowledge and total knowledge score (r = 0.464; p < 0.001).

Table 2: Proportion of the respondents with correct insurance knowledge (n = 464).

	Items	**n (%)**
1	Insurance type protects community pharmacy properties from theft, fire and storm, natural and man-made disaster.	136 (29.3)
2	Insurance type covers the cost of injury or damages incurred by anyone inside the premises due to error on the part of the community pharmacy setting or staff.	52 (11.2)
3	Insurance type fights legal claims filed by an employee of a community pharmacy for money utilising the community pharmacy legal documents as a source of information.	80 (17.2)
4	Insurance type shields a community pharmacist from negligence claims resulting from errors, omissions and failure to perform in the provision of advice or services.	148 (31.9)
5	Insurance type reimburses a community pharmacy for lost income caused by incidents that disturb the normal course of business and practice.	104 (22.4)
6	General liability insurance is required by law in Nigeria if you have employees.	60 (12.9)
7	Professional indemnity insurance is mandatory in Nigeria.	156 (33.6)
8	Insurance providers cannot conduct an annual risk assessment to identify action an insurer can take to lower insurance cost.	140 (30.2)
9	Insurance is a method to reduce financial risk.	364 (78.4)
10	Rider is the amount individual pay to buy insurance, which is usually paid monthly, quarterly or annually.	76 (16.4)
11	The insurance policy among other terms and conditions specifies what risks are covered by the insurance company.	340 (73.3)
12	Rate your insurance knowledge on a scale of 0 to 10:	
	0	40 (8.6)
	2	180 (38.8)
	4	116 (25.0)
	6	84 (18.1)
	8	36 (7.8)
	10	8 (1.7)

Attitude Score Related to Insurance

As to the attitude scores, the mean score was 42.4 ± 8.1 (range 12–60). Most of the respondents had a positive attitude (n = 388, 83.6%) while only 76 (16.4%) had negative attitudes towards insurance. Two hundred and twenty-four (48.3%) respondents agreed that the goal of raising insurance awareness is to increase the demand for conscious insurance coverage and risk perception (in relation to an asset) of the owner enhance the likelihood of obtaining insurance coverage (Table 3).

Table 3: Respondents' attitudes towards insurance (n = 464).

	Items	n (%)				
		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
1	Insurance is useful to my community pharmacy.	28 (6.0)	40 (8.6)	60 (12.9)	196 (42.2)	140 (30.2)
2	Insurance products have not gained high popularity among community pharmacy owners in Nigeria.	32 (8.9)	66 (14.7)	72 (15.5)	188 (40.5)	104 (22.4)
3	The goal of increasing insurance awareness is to increase the demand for conscious insurance coverage.	32 (6.9)	40 (8.6)	64 (13.8)	224 (48.3)	104 (22.4)
4	Insurance companies in Nigeria are reliable and trustworthy.	36 (7.9)	100 (21.6)	252 (54.3)	56 (12.1)	20 (4.3)
5	Trust in the brand of insurer and (honesty of) the industry increases the willingness to purchase insurance.	40 (8.6)	36 (7.8)	96 (20.7)	200 (43.1)	92 (19.8)
6	Risk perception (in relation to an asset) of the owner increases the likelihood of contracting insurance coverage.	24 (5.2)	48 (10.3)	108 (23.3)	224 (48.3)	60 (12.9)
7	People with higher levels of concern tend to use risk reduction methods more frequently.	32 (6.9)	40 (8.6)	116 (25.0)	216 (46.6)	60 (12.9)
8	Awareness can have a significant influence on the pharmacy owners' patronage of insurances services.	20 (4.3)	28 (6.0)	64 (13.8)	200 (43.1)	152 (32.8)

(continued on next page)

Table 3: (*continued*)

	Items	n (%)				
		Strongly disagree	**Disagree**	**Neutral**	**Agree**	**Strongly agree**
9	It is essential to plan for possible business sustainability threats.	28 (6.0)	32 (6.9)	56 (12.1)	208 (44.8)	140 (30.2)
10	Making sure your pharmacy is insured against reasonable risks is not necessary for successful financial management.	96 (20.7)	176 (37.9)	104 (22.4)	48 (10.3)	40 (8.6)
11	The possession of appropriate insurance coverage should be a prerequisite for registration of a community pharmacy and yearly renewal of the premise license.	68 (14.7)	108 (23.3)	140 (30.2)	92 (19.8)	56 (12.1)
12	Community pharmacies in Nigeria do not need insurance coverage.	96 (20.7)	184 (39.7)	120 (25.9)	32 (6.9)	32 (6.9)

Practice Score Related to Insurance

As to the practice score, the mean score was 39.9 ± 8.8 (range 14–70). Most of the respondents had negative practices (n = 284, 61.2%), while 180 (38.8%) had positive practices towards insurance. It was typical for 160 (34.5%) of the respondents to ask friends and/or family members to recommend someone they have dealt with before choosing an agent or broker. Also, it was typical for 160 (34.5%) of the respondents to likely buy insurance in the future, while it was typical for 180 (38.8%) to likely recommend insurance to other pharmacy owners (Table 4).

Table 4: Respondents' practices toward insurance (n = 464).

	Items	n (%)				
		Strongly not typical of me	**Not typical of me**	**Neutral**	**Typical of me**	**Strongly typical of me**
1	I owned at least an insurance policy for my pharmacy before.	40 (8.6)	196 (42.2)	148 (31.9)	52 (11.2)	28 (6.0)
2	I adequately insured my pharmacy.	44 (9.5)	240 (51.7)	112 (24.1)	32 (6.9)	36 (7.8)

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Table 4: (*continued*)

		n (%)				
	Items	**Strongly not typical of me**	**Not typical of me**	**Neutral**	**Typical of me**	**Strongly typical of me**
3	I regularly set aside money for large, expected expenses like insurance.	56 (12.1)	216 (46.6)	108 (23.3)	60 (12.9)	24 (5.2)
4	I pay my premium promptly.	44 (9.5)	208 (44.8)	136 (29.3)	48 (10.3)	28 (6.0)
5	I take advantage of insurance to create wealth.	52 (11.2)	212 (45.7)	128 (27.6)	48 (10.3)	24 (5.2)
6	I evaluate my pharmacy situation from time to time, as may be needed to update my policy after major life events.	36 (7.8)	204 (44.0)	144 (31.0)	40 (8.6)	40 (8.6)
7	My decisions about the type and amount of insurance I get depend on my situation, my budget, personal beliefs and the value of what I am insuring.	52 (11.2)	144 (31.0)	140 (30.2)	92 (19.8)	36 (7.8)
8	I am satisfied with my current liabilities.	44 (9.5)	116 (25.0)	192 (41.4)	64 (13.8)	48 (10.3)
9	Before choosing an agent or broker, I shop around.	80 (17.2)	96 (20.7)	172 (37.1)	116 (25.0)	0 (0.0)
10	Before choosing an agent or broker, I ask friends and/or family members if they can recommend someone they have dealt with.	28 (6.0)	84 (18.1)	156 (33.6)	160 (34.5)	36 (7.8)
11	Before choosing an agent or broker, I ask the agent or broker to provide references from other clients.	36 (7.8)	104 (22.4)	148 (31.9)	120 (25.9)	56 (12.1)
12	I am satisfied with the service from my insurer.	56 (12.1)	92 (19.8)	256 (55.2)	36 (7.8)	24 (5.2)

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Table 4: (*continued*)

	Items	n (%)				
		Strongly not typical of me	**Not typical of me**	**Neutral**	**Typical of me**	**Strongly typical of me**
13	I am likely to buy insurance in the future.	28 (6.0)	28 (6.0)	140 (30.2)	160 (34.5)	108 (23.3)
14	I am likely to recommend insurance to other pharmacy owners.	40 (8.6)	44 (9.5)	144 (31.0)	180 (38.8)	56 (12.1)

Community Pharmacy Insurance Patronage and Barriers

Only 120 (25.9%) respondents had current insurance coverage for their pharmacy while the majority (74.1%, n = 344) did not. Of the numbers that did not have, the main reasons for not having insurance coverage were the high cost (33.7%, n = 116), dissatisfaction with previous coverage (23.3%, n = 80) and ignorance (19.8%, n = 68), as shown in Figure 1.

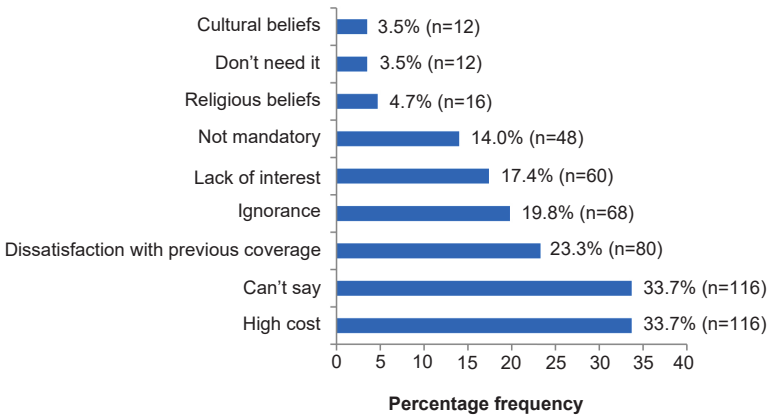

Figure 1: Respondents' reasons for not having current insurance coverage (n = 344).

Relationship Between Knowledge, Attitudes and Practices

The correlation revealed significant positive linear correlations between knowledge and attitude (r = 0.252; p < 0.001), knowledge and practice (r = 0.234; p < 0.001) and attitude and practice (r = 0.312; p < 0.001) (Table 5).

Table 5: The correlation results between knowledge, attitudes and practice.

Variables		Knowledge	Attitude
Attitude	Pearson correlation	0.252	–
	p-value	< 0.001*	–
Practice	Pearson correlation	0.234	0.312
	p-value	< 0.001*	< 0.001*

Note: *Significant at $p < 0.05$

Aged between 23–42 years (AOR 2.6; 95% CI 1.3–5.6) and having an undergraduate degree as the highest qualification were significant predictors of poor knowledge (AOR 9.6; 95% CI 4.0–23.1) while being a female (AOR 3.1; 95% CI 1.7–5.5), having an undergraduate degree as the highest qualification (AOR 2.8; 95% CI 1.4–5.5), having a work seminar on insurance (AOR 17.6; 95% CI 7.1–43.8), and unawareness of insurance companies, products and services (AOR 5.6; 95% CI 2.8–10.9) were significant predictors of negative attitudes towards insurance. In addition, being a female (AOR 2.2; 95% CI 1.4–3.3) and unawareness of insurance companies, products and services (AOR 1.8; 95% CI 1.1–2.9) were significant predictors of negative insurance practice (Table 6).

Table 6: Predictors of poor knowledge, negative attitude and practice towards insurance (n = 464).

Independent variable	Knowledge	*p*-value	Attitude	*p*-value	Practice	*p*-value
	AOR (95% CI)		AOR (95% CI)		AOR (95% CI)	
Age group (years)						
23–42	2.6 (1.3–5.6)	0.011*	0.6 (0.3–1.2)	0.133	1.1 (0.7–1.8)	0.596
43–82	1.0		1.0		1.0	–
Sex						
Female	1.5 (0.7–3.0)	0.313	3.1 (1.7–5.5)	< 0.001*	2.2 (1.4–3.3)	<0.001*
Male	1.0		1.0		1.0	–
Highest qualification						
Undergraduate degree	9.6 (4.0–23.1)	< 0.001*	2.8 (1.4–5.5)	0.003*	0.7 (0.5–1.1)	0.121
Postgraduate degree	1.0		1.0		1.0	–
Practice experience (years)						
1–10	0.7 (0.3–1.5)	0.691	2.0 (0.9–4.6)	0.089	0.7 (0.4–1.2)	0.239
>10	1.0		1.0		1.0	–
Seminar on insurance in your working career						
No	1.4 (0.6–3.1)	0.404	1.0	< 0.001*	0.8 (0.5–1.3)	0.322
Yes	1.0		17.6 (7.1 –43.8)		1.0	–

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Table 6: (*continued*)

Independent variable	Knowledge	*p*-value	Attitude	*p*-value	Practice	*p*-value
	AOR (95% CI)		AOR (95% CI)		AOR (95% CI)	
Insurance companies, products and services awareness						
No	1.1 (0.5–2.4)	0.824	5.6 (2.8–10.9)	< 0.001*	1.8 (1.1–2.9)	0.013*
Yes	1.0		1.0		1.0	–

Note: *Significant at $p < 0.05$; AOR = adjusted odds ratio

DISCUSSION

In the present study, most of the respondents had poor insurance knowledge. This finding is not surprising, as previous studies have shown that consumers in the insurance market do not view insurance as a necessity due to lack of adequate information about insurance products (Seog 2002). However, the finding of our study suggests that appropriate risk management of SMEs has not been prioritised in Nigeria. It is worth noting that the inability of SMEs owners to identify and appraise imminent business threats diminishes their business survival capacity (Mambula 2002).

Positive attitudes towards insurance were reported by most of the respondents. It is worth noting that attitude in relation to an object is determined by subjective values that an individual give to the attributes of the object and by the intensity with which the associations between products and attributes are made (Ajzen and Fishbein 2000). Therefore, attitude is based on information someone has about an object and may be influenced by new information, mainly in the form of persuasive communication. The present study revealed poor insurance patronage despite a considerable proportion of the respondents that had experienced unforeseen threats such as theft and/or fire outbreak in their pharmacies. This finding indicates the existence of an untapped market for insurance companies in Nigeria. Consistent with our results, it has been reported previously in the literature that most SMEs owners are prone to various business survival threats but do not possess insurance policies (Unachukwu *et al.* 2021). Relatively low insurance penetration of an average of 3.2% in Africa in 2022 was reported (Kimani 2024). South Africa remains the largest and most established insurance market on the continent, with a penetration rate of over 12%, which is about 5% above the global average (Kimani 2024).

The poor insurance patronage identified in our study was mainly due to the high cost of insurance premium, dissatisfaction with previous coverage and lack of insurance knowledge. In agreement with our findings, several studies and reports also identified the insurance price, customer's dissatisfaction, poor knowledge, and attitude to risk among others as the factors affecting the demand for insurance (Nyce 2007). Despite the high cost of insurance occasioned by the current economic situation in Nigeria, the uptake of insurance policies for community pharmacies should not be neglected because it still has cost-saving potential in the long term. These findings highlight the need for an improved financial literacy on SMEs viability and survival via insurance in Nigeria. Also, Nigerian insurance companies should strive to make insurance packages appealing to the community pharmacists/pharmacy owners. Further, existing insurance laws and regulations for SMEs including community pharmacies should be implemented.

Taken together, evidence has demonstrated a significant direct positive association between insurance awareness, knowledge and acceptance (Mohammed *et al.* 2011; Osho and Ademuyiwa 2017; Ajemunigbohun and Adeoye 2018). Therefore, it is essential for insurance practitioners to enhance insurance awareness and education on the importance of integrating risk management strategies into the business plans of community pharmacists and pharmacy owners. This approach aims to boost patronage, ensuring their survival, success and recovery. Also, community pharmacists and pharmacy owners should be made critical stakeholders in the design of insurance products related to community pharmacy activities to allow for a sense of ownership.

A positive relationship between insurance knowledge and attitudes of the respondents was noted in the present study. In other words, poor insurance attitudes are linked to poor knowledge and vice versa. This finding suggests that improvement in insurance knowledge will lead to improvement in insurance attitudes also. On the contrary, despite positive attitudes towards insurance noted in the present study, the perceived practice toward insurance was negative. This finding could reflect poor insurance knowledge of the respondents because knowledge drives practice. The correlation analysis which revealed a positive relationship between knowledge and practice of insurance lends credence to this observation. This finding indicates that improvement in insurance knowledge improves its practice. Comparable to our findings, a similar study in Northern Nigeria found a positive relationship between awareness of insurance services and consumers' patronage (Adamu 2018). Another study conducted in Southern Nigeria also found a positive relationship between insurance awareness and its acceptance among small business owners (Ajemunigbohun and Adeoye 2018). It is noteworthy that, if people are not knowledgeable about the operations and products of insurance, negative practice is expected. To explain this, a study conducted in Southern Nigeria on awareness of insurance shows that majority of the respondents who patronised insurance were aware of its services and products (Olugbenga-Bello and Adebimpe 2010). Furthermore, a positive relationship was noted in the present study between insurance attitudes and practices. This indicates that improvement in attitude leads to an improvement in practice. Consistent with our finding, a similar study on acceptance and patronage of insurance services in Northern Nigeria also found a positive relationship between attitude and consumers' patronage of the insurance services (Adamu 2018).

The multivariable analyses results revealed that age between 23–42 years old and undergraduate degree is the highest qualification as significant predictors of poor insurance knowledge. These results suggest that the current Nigerian undergraduate pharmacy education is inadequate to provide insurance knowledge to pharmacy students. Hence, the need to incorporate insurance education in the Nigerian undergraduate pharmacy curriculum. Incorporation and implementation of an insurance education curriculum in undergraduate pharmacy education in Nigeria could promote and encourage the implementation of financial risk control methods among future pharmacists. On the other hand, the incorporation of appropriate topics on the need to integrate risk management responsibilities into their business/practice plans in the mandatory continuous professional development education program for community pharmacists in Nigeria is a valuable strategy to improve insurance knowledge and promote its uptake. On the other hand, female gender was significant predictor of negative insurance attitudes and practices. These findings are comparable to that of a similar study which reported that males significantly take up more insurance than the females (Langat *et al.* 2017). These findings confirm that females are less risk averse and less conscious of the importance of community pharmacy practice insurance compared to their male counterparts. Hence, their negative attitudes and practices. Undergraduate degree as the highest educational qualification and insurance seminar on a job were also

significant predictors of negative insurance attitudes. These findings strengthen the need for the revision of the Nigerian undergraduate pharmacy education to include insurance topics to help prepare pharmacy students for the real-world community pharmacy practice, including risk mitigation strategies upon graduation. On the other hand, the use of insurance experts to deliver insurance seminars to Nigerian community pharmacists is highly recommended to promote positive attitudes towards insurance. Furthermore, unawareness of insurance companies, products and services significantly negatively influenced the insurance attitudes and practices of the study participants. This result may be linked to the poor insurance knowledge of most participants. It has been found that insurance awareness has the potential to promote positive attitudes and practices (Olugbenga-Bello and Adebimpe 2010). Therefore, interventions focused on awareness creation about insurance as a financial risk management method to the Nigerian community pharmacists by insurance practitioners are highly recommended.

LIMITATIONS OF THE STUDY

The study had some limitations which include the fact that the findings may not apply to high-income countries where liability challenges of community pharmacies are higher. Another limitation is that selection biases arising from convenience sampling of participants may have resulted in the non-representation of all practicing community pharmacists in Nigeria. In addition, the cross-sectional study design could not determine any change in knowledge, attitudes or practices of the respondents over time.

CONCLUSION

Majorities of the respondents had poor actual knowledge and perceived negative practice towards insurance. Therefore, interventions targeting the identified significant factors by pharmacy regulatory body, educators, as well as insurance practitioners have the potential to improve the insurance knowledge and practices of Nigerian community pharmacists.

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