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Self- Medication Practices and Complications among Workers in Federal Medical Center, Owerri, Imostate, Nigeria

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Abstract **Original Research Article**

The study's objective was to evaluate self-medication habits and side effects among employees at the Federal Medical Centre in Owerri, Imo State, Nigeria. To direct the study, six objectives, six research questions, and four research hypotheses were developed. The study used a cross-sectional research design. Four (4) departments and respondents were chosen utilising a multi-stage sample technique and simple random technique. 436 workers in all were chosen for the study. A self-created questionnaire served as the data collection tool. The test-retest approach was used to establish the instrument's reliability and the spearman rank order correlation coefficient produced a positive result of 0.8. Utilising frequencies, percentages, means, and standard deviations, the data was sorted, examined, and summarised. The chi-square, T-test, and ANOVA were used to evaluate the hypotheses at the 0.05 level of significance. The findings indicated that 73% of Federal Medical Centre Owerri employees self-medicated, with problems being the most common (x = 2.87; SD =.765). A greater 94.3% of workers in the 50–59 age group reported using self-medication. Self-medication is more common among female workers than male workers (78.9% versus 69.8%). Workers between the ages of 40 and 49 report more self-medication difficulties (x = 3.02; SD = 1.2). Self-medication issues are worse for female workers than for male workers (x = 2.92; SD =.765). Based on age (x2=11.976, df = 6, p-value =.73) and gender (x2=1.674, df = 1, p-value =.196), there were no appreciable differences in the self-medication practises among employees at the Federal Medical Centre in Owerri, Imo State. The only factor that significantly differed in the problems of self-medication among employees at the Federal Medical Centre in Owerri, Imo State, was age (F(6, 413) = 2.996, p =.000). To keep staff members informed and reeducated about the risks of self-medication, regular workshops and seminars should be organised.

Keywords: Self-medication, habits, side effects, employees, workers, complications, practices, medical.

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INTRODUCTION

Self-medication is the process of obtaining and using medications for either diagnostic or therapy monitoring without a doctor's guidance. It involved the use of any drug not authorised by a doctor's prescription or any other over-the-counter medication (Alsous, and Elayeh 2018). Self-medication is the process of choosing a substance to cure a self-diagnosed sickness or symptom. It featured over-the-counter (OTC) medications, which are available without a prescription and are safe and efficient when used as advised by a healthcare provider and the label's instructions (Food and Drug Administration, 2018). The available data mostly focus on the overall self-medication rate in sub-Saharan Africa, which ranges from 11.9% to 75.7%. Self-medication seems to be more prevalent in women and is linked to poor socioeconomic status (Ocan, 2014). In their study, Ouédraogo, (2015) discovered that 71.92 percent of participants had self-medicated, and 99 patients (48.8 percent) had done so for rheumatologic issues. In comparison to other studies in sub-Saharan Africa, the percentage of research participants who reported using an antibiotic on themselves in the year prior was significantly lower (Julian, 2019). In sub-Saharan Africa, previous studies conducted in regions with high malaria prevalence have discovered a correspondingly high prevalence of antimicrobial self-treatment (Nsagha, 2011).

According to a study conducted in Nigeria by Ayanwale, (2017), between 52.1 and 92.3% of patients hospitalised had a high prevalence of self-medication. According to Babatunde *et al.*, (2016), among health personnel in a tertiary institution in South-West Nigeria, 51% had ever used self-medication while 32% were

doing so at the time of their survey. Similar to this, Esan (2018) found that two-thirds of undergraduate students at a university in Nigeria used self-medication. According to Oshikoya *et al.,* (2019), self-medication was reported in 85% and 79% of patients at the general outpatients and dental clinics in Owo, Nigeria, respectively. This incidence was similar for infants treated for colic without medical assistance in Lagos, south-west Nigeria.

STATEMENT OF PROBLEMS

People typically seek medical assistance in hospitals when they are ill. The medical professionals will take care of them to manage a health issue, minimise its symptoms, and resolve it. Health professionals will specifically treat their unique symptoms, which may include the use of drugs to treat pain or infections, surgery to remove diseased tissue or replace organs with ones that are fully functional, and counselling or psychotherapy to treat their illness. Self-medication is frequently an apparent alternative because health care services in places like Federal Medical Centre, Owerri are not always easily available. Additionally, because of the lengthy wait times in hospitals, the difficulty of accessing them, the cost, and the perception that their ailments are trivial, the workers favour self-medication. Self-medication is due to information about medications, prior experience, ease of access to medications, a lack of time, access to medical personnel, the cost of a doctor's visit, a lack of regard for patients' privacy, and the explosion of information. Self-medication is becoming more and more popular, with the premise that it helps to lower treatment costs, travel time, and doctor's time, or consultation time.

OBJECTIVES OF THE STUDY

Specifically, the objective of the study sought to:

1. Determine self- medication practices among workers in Federal Medical, Center, Owerri, Imo State.
2. Determine the complications of self- medication among workers in Federal Medical, Center, Owerri, Imo State.
3. Determine self- medication practices among workers in Federal Medical, Center, Owerri, Imo State based on age.

RESEARCH QUESTIONS

The following research questions guided the study.

1. What are the self- medication practices among workers in Federal Medical, Center, Owerri, Imo State?
2. What are the complications of self- medication among workers in Federal Medical, Center, Owerri, Imo State?
3. What are the self- medication practices among workers in Federal Medical, Center, Owerri, Imo State based on age?

RESEARCH HYPOTHESES

The under listed null hypotheses guided the study at 0.05 level of significant.

1. There is no significant difference in the self-medication practices among workers in Federal Medical, Center, Owerri, Imo State based on age.
2. There is no significant difference in the self-medication practices among workers in Federal Medical, Center, Owerri, Imo State based on gender.
3. There is no significant difference in the complications of self- medication among workers in Federal Medical, Center, Owerri, Imo State based on age.

LITERATURE REVIEW

Concept of self-medication

The main public health resource available through the healthcare system can be described as self-care. It includes the health-related actions and choices made by people, families, friends, coworkers, and others. It covers first aid in daily life, drug-free self-care, social support during illness, and self-medication. For instance, many people who are dealing with mental health problems like depression or anxiety can turn to drugs and alcohol as a form of self-medication to try and reduce or even get rid of their symptoms. Self-medication is a strategy that some people take to try to manage physical discomfort, such as that brought on by an injury or even drug withdrawal (Babatunde *et al*., 2016).

There is currently a lot of interest in the reclassification of pharmaceutical products from sale on prescription only to non-prescription (over-the-counter, or OTG) sale. Health officials and drug regulatory agencies must take into account the different medicines for which reclassification is reasonable, safe, and in the public's best interest. Self-medication is now widely acknowledged to play a significant role in the healthcare system (Shah, 2013). This viewpoint has been influenced by the understanding that people are ultimately responsible for their own health and that seeking professional medical attention for minor ailments is frequently unnecessary. People's general knowledge and skill levels have improved.

Causes of self-medication

Self-medication use has increased, according to studies on the topic (Selvaraj *et al.,* 2014). These factors include socioeconomic ones, lifestyle choices, easy access to drugs, the increased ability to treat some conditions on one's own, and more readily available medical supplies. Other significant factors that affect self-medication include patient comfort with the healthcare professional, lengthy wait periods, the cost

of the pharmaceuticals, educational attainment, age, and gender. The exorbitant costs associated with private doctor consultations are among the most prevalent justifications for self-medication. The situation is worse in remote or rural areas, where people are economically, socially, and educationally disadvantaged, illiterate, and lack access to proper healthcare facilities (Verstappen *et al.,* 2013). Another study's top two identified factors were past exposure and the illness's lack of seriousness. The main stated sources of information about self-medication were reasons for self-medication and reading materials.

Potential benefits of self-medication

According to Babatunde *et al.* (2016), the social and economic advantages of self-medication are due to the fact that consumers freely choose it in situations where it looks favourable to them. It will typically be chosen for use in symptoms and ailments that the user considers to be troublesome enough to necessitate medical care but not troublesome enough to warrant contacting a doctor. The only time professional medical assistance will be needed is if the condition doesn't improve, continues, or gets worse. As a result, effective self-medication ought to provide the specific consumer with: Efficacy is the quality of a product performing as promised (Sánchez *et al*., 2014).

Reliability and safety: People frequently select a product that past usage has demonstrated to be suitable. By carefully choosing authorised indications, labelling texts, dosage strengths and formats, and container sizes, the scope and duration of self-medication can be controlled within safe bounds; product security when utilised in accordance with instructions; acceptable risk, even when taken longer, at a larger dose, or in a different way from what the instructions call for; greater access to medications (Babatunde *et al.* 2016).

Potential risks of Self-medication

The CDC noted in 2021 that more Americans now have "unmet mental health care needs" than there were in the early stages of the pandemic. The effects on mental health are especially severe for young individuals. Nearly two-thirds of young people are experiencing "significant symptoms of anxiety or depression" since the outbreak, according to a CDC report that Forbes cited. Substance misuse issues can become quite problematic when a mental health disease is not treated and is not addressed (CDC, 2021).

The hazards of self-medication are numerous. In particular, the average user typically lacks specialised understanding of pharmacology, therapy, or the unique properties of the medication being administered. As a result, the individual consumer faces some possible hazards. incorrect self-diagnosis; delaying seeking immediate, suitable medical care; incorrectly selecting a course of treatment; failing to recognise unique pharmacological dangers; uncommon but serious negative effects.

Practice of Self-medication

Practise is the act of performing something repeatedly or regularly: to follow a rigid schedule. to adhere to, practise, or observe regularly: to engage in religious activity. To practise law is to engage in as a profession, art, or occupation. to play anything repeatedly in order to improve one's ability or skill: to practise the violin. Geriatric patients frequently self-medicate with prescription drugs and herbal remedies. Self-medication is more widely used today than at any other point in history for a variety of reasons. Self-medication hence ought to be a primary priority for all health and medication authorities worldwide. Self-medication has benefits and drawbacks. Typically, people are unaware of the possible risks associated with self-medication.

Prevalence practice of Self-medication

The most popular method of self-medication is self-medication, which involves choosing and using medications to treat diseases or symptoms that have been self-recognized or self-diagnosed without a doctor's prescription (Sharif *et al.,* 2015). Another popular strategy is called folk medicine, which is ubiquitous in Asian nations and includes treatments like acupuncture, aromatherapy, reflexology, massage, and others. Folk therapy differs from other methods, including self-medication, in that other experts may be involved. However, these individuals are mostly not medical doctors, particularly in Asian nations. As a result, folk treatment is also considered a type of self-treatment. Therapy based on faith or spirituality as well as others have been used. Some of the current research look at all self-treatment strategies as a whole, while others concentrate on a specific strategy or a specific medical condition (Mortazavi).

Effects of Self-Medication

Numerous studies have shown the beneficial effects of self-medication on health; in a Hong Kong research on the usage of herbal remedies, nearly 60% of participants said they used a herbal cure to treat or prevent health issues. Other self-care methods have also been advocated as useful, such as massage, which has been shown to improve walking ability, quality of life, and discomfort in senior individuals with knee osteoarthritis. Combining massage with the usage of a roller device was found to lessen muscle discomfort (Jiang *et al.,* 2015). Self-medication has the added benefit of relieving the strain on medical services. Self-care can significantly improve the control of disease conditions for people with limited access to healthcare services who live in rural or remote places. In the last 5 years, very few studies analyzed the role of self-treatment in shifting responsibilities and health-care cost from government and patients.

METHODOLOGY

To accomplish the study's goals, a cross-sectional research design was adopted in the research. The self-medication practises of pregnant women, the most commonly used drugs, symptoms reported, and characteristics related with this practise were all studied by Pereira *et al.* (2021) using this design. For the study at Federal Medical Centre Oweri, a sample of four hundred and thirty-six (436) workers was chosen by using 50% of the respondents. The sample size of 436 was therefore calculated using the 50% of the population. An independently created structured questionnaire served as the data gathering tool.

There were four sections (A, B, C) in the structured questionnaire. Three questions about the respondents' sociodemographic characteristics made up Section A. Twenty-one items on the self-medication were included in Section B. In line with the dichotomous scale of true or false and the Likert scale of Strongly Agreed (4), Agreed (3), Disagree (2), and Strongly Disagree (1), the study's score points were nominal and interval. Frequencies, percentages, means, and standard deviations were used to provide answers to the research questions. While the one-way Analysis of Variance (ANOVA), student t-test, and chi-square statistics were used to assess the null hypotheses. At the 0.05 threshold of significance, the null hypotheses were deemed significant.

DATA ANALYSIS AND RESULTS

Research Question One

What are the self- medication practices among workers in Federal Medical Center, Owerri, Imo State?

Table 1: Self-medication practices among workers in Federal Medical Center (*n* = 420)

S/N	Items	True f (%)	False f (%)
1	**Indicate when you practice self-medication;** When disease is not serious	408(97.1)	12(2.9)
2	When there is Emergency	334(79.5)	86(20.5)
3	With similar experience of illness	386(91.9)	34(8.1)
4	When medical doctors are on strike	212(50.5)	208(49.5)
5	When hospital cost is not affordable	327(77.9)	93(22.1)
6	**How do you request for drugs from source:** By mentioning the name of the drug	390(92.9)	30(7.1)
7	By mentioning the group to which the drug belongs, e.g. antacid	278(66.2)	142(33.8)
8	By showing an old sample/package of the drug	140(33.3)	280(66.7)
9	By preventing piece of paper on which the name of the drug is written	293(69.8)	127(30.2)
10	By describing the shape/shape or any other physical characters	352(83.8)	68(16.2)
11	**Type of drug request:** Analgesic/antipyretic	295(70.2)	125(29.8)
12	Antimicrobial	383(91.2)	37(8.8)
13	Respiratory drugs	289(68.8)	131(31.2)
14	Vitamins	324(77.1)	96(22.9)
15	Oral rehydration salt	272(64.8)	148(35.2)
16	Others	248(71.0)	122(29.0)
17	**Source of drug used for self-medication:** Purchased from pharmacies	261(62.1)	159(37.9)
18	Unused medicine stored at home	354(84.3)	66(15.7)
19	From friends and family members	313(74.5)	107(25.5)
20	From herbalists	269(64.0)	151(36.0)
21	Others	262(62.4)	158(37.6)
	Cluster %	**73.0**	**26.9**

Note. 0-39% = low practice; 40-69% = moderate/fair practice, ≥ 70% = High practice

Table 1 shows that workers in Federal Medical Center Owerri practices self-medication. When disease is not serious (97.1%), when there is an emergency (79.5%), with similar experience of illness. (91.9%), when medical doctors are on strike (50.5%), when hospital cost is not affordable (77.9%). In cluster, 73% of the respondent practices self-medication.

Research Question Two

What are the complications of self- medication among workers in Federal Medical Center, Owerri, Imo State?

Table 2: Complications of self-medication among workers in Federal Medical Center, Owerri, Imo State (*n* = 420)

S/N	Items	$\bar{x}$	SD
1	Loss of speech	3.53	.554
2	Partial/complete deafness	3.19	.697
3	Drug resistance	3.33	.682
4	Dangerous drug interactions	1.76	.787
5	Drug dependence	1.93	.816
6	Drug induced depression	3.14	.800
7	Drug induced skin problems	3.32	.650
8	Hypersensitivity/allergies	2.06	.908
9	Injection abscess	3.03	.796
10	Stomach upset / vomiting	3.12	.727
11	Health irrevocable	2.98	.742
12	Disabilities (paralysis)	3.18	.806
13	Diarrhea	2.37	.907
14	Constant headache	2.88	.815
15	Drowsiness/ fatigue	3.29	.801
	Cluster	**2.87**	**.765**

Note.$\bar{x}$< 2.50 = do not experience;$\bar{x}$≥ 2.50 = experience complications of self-medicatio

Results in Table 2 showed that overall, the workers in FMC Owerri experience complications of self-medication ($\bar{x}$ = 2.87; SD = .765).

Research Question Three

What are the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on age?

Table 3: Self-medication practices among workers in Federal Medical Center based on age (*n* = 420)

	Age													
	< 20 years (*n*=11)		20-29 years (*n*=22)		30-39years (*n*=22)		40-49 years (*n*=60)		50-59 years (*n*=84)		60- 69 years (*n*=114)		>70 years (*n*=107)	
Items	**True f(%)**	**False f(%)**	**Truef(%)**	**Falsef(%)**	**True f(%)**	**False f(%)**	**Truef(%)**	**Falsef(%)**	**True f(%)**	**False f(%)**	**True f(%)**	**False f(%)**	**True f(%)**	**False f(%)**
Indicate when you practice self-medication; When disease is not serious	8(72.7)	3(27.3)	18(81.8)	4(18.2)	18(81.8)	4(18.2)	58(96.6)	2(3.3)	79(94.1)	5(5.9)	103(90.4)	11(9.6)	94(87.9)	13(12.1)
When there is Emergency	8(72.7)	3(27.3)	18(81.8)	4(18.2)	18(81.8)	4(18.2)	58(96.6)	2(3.3)	79(94.1)	5(5.9)	110(96.5)	4(3.5)	90(84.1)	17(15.9)
With similar experience of illness	8(72.7)	3(27.3)	18(81.8)	4(18.2)	18(81.8)	4(18.2)	58(96.6)	2(3.3)	79(94.1)	5(5.9)	110(96.5)	4(3.5)	94(87.9)	13(12.1)
When medical doctors are on strike	9(38.8)	2(18.2)	20(90.9)	2(9.1)	18(81.8)	4(18.2)	58(96.6)	2(3.3)	80(95.2)	4(4.8)	110(96.5)	4(3.5)	100(93.5)	7(6.5)
When hospital cost is not affordable	11(100)	0(00.0)	10(45.5)	12(54.5)	22(100.)	0(00.0)	55(91.7)	5(8.3)	81(96.4)	3(3.6)	103(90.4)	11(9.6)	20(18.7)	87(81.3)

How do you request for drugs from source: By mentioning the name of the drug	11(100)	0(00.0)	10(45.5)	12(54.5)	20(90.9)	2(9.1)	55(91.7)	5(8.3)	84(100)	0(0.00)	103(90.4)	11(9.6)	20(18.7)	87(81.3)
By mentioning the group to which the drug belongs,	11(100)	0(00.0)	10(45.5)	12(54.5)	20(90.9)	2(9.1)	60(100.)	0(00.0)	81(96.4)	3(3.6)	103(90.4)	11(9.6)	100(93.5)	7(6.5)
By showing an old sample/package of the drug	9(38.8)	2(18.2)	20(90.9)	2(9.1)	10(45.5)	12(54.5)	60(100.)	0(00.0)	82(97.7)	2(2.3)	114(100.)	0(00.0)	100(93.5)	7(6.5)
By presenting piece of paper on which the name of the drug is written	9(38.8)	2(18.2)	20(90.9)	2(9.1)	10(45.5)	12(54.5)	60(100.)	0(00.0)	82(97.7)	2(2.3)	114(100.)	0(00.0)	90(84.1)	17(15.9)
By describing the shape/shape or any other physical characters	9(38.8)	2(18.2)	20(90.9)	2(9.1)	10(45.5)	12(54.5)	60(100.)	0(00.0)	80(95.2)	4(4.8)	114(100.)	0(00.0)	90(84.1)	17(15.9)
Type of drug request: Analgesic/antipyretic	10(90.9)	1(9.1)	12(54.5)	10(45.5)	10(45.5)	12(54.5)	52(86.7)	8(13.3)	80(95.2)	4(4.8)	100 (87.7)	14 (12.3)	107(100.)	0(00.0)
Antimicrobial	11(100)	0(00.0)	12(54.5)	10(45.5)	10(45.5)	12(54.5)	52(86.7)	8(13.3)	80(95.2)	4(4.8)	100 (87.7)	14 (12.3)	107(100.)	0(00.0)
Respiratory drugs	8(72.7)	3(27.3)	18(81.8)	4(18.2)	19(86.4)	3(13.6)	58(96.6)	2(3.3)	80(95.2)	4(4.8)	103(90.4)	11(9.6)	105(98.1)	2(2.9)
Vitamins	10(90.9)	1(9.1)	18(81.8)	4(18.2)	19(86.4)	3(13.6)	40(66.7)	20(33.3)	80(95.2)	4(4.8)	90(78.9)	24(21.1)	105(98.1)	2(2.9)
Oral rehydration salt	10(90.9)	1(9.1)	12(54.5)	10(45.5)	22(100)	0(00.0)	40(66.7)	20(33.3)	80(95.2)	4(4.8)	90(78.9)	24(21.1)	95(88.8)	12(12.2)
Others	11(100)	0(00.0)	3(13.6)	19(86.4)	20(90.9)	2(9.1)	50(83.3)	10(16.7)	80(95.2)	4(4.8)	114(100.)	0(00.0)	95(88.8)	12(12.2)
Source of drug used for self-medication: Purchased from pharmacies	0(00.0)	11(100)	3(13.6)	19(86.4)	5(22.7)	17(77.30	51(85.0)	9(15.0)	80(95.2)	4(4.8)	93(81.6)	21(18.4)	85(79.4)	22(20.6)
Unused medicine stored at home	0(00.0)	11(100)	10(45.5)	12(54.5)	5(22.7)	17(77.30	51(85.0)	9(15.0)	80(95.2)	4(4.8)	93(81.6)	21(18.4)	85(79.4)	22(20.6)

From friends and family members	1(9.1)	10(90.9)	18(81.8)	4(18.2)	10(45.5)	12(54.5)	50(83.3)	10(16.7)	84(100.)	0(0.00.)	93(81.6)	21(18.4)	85(79.4)	22(20.6)
From herbalists	1(9.1)	10(90.9)	18(81.8)	4(18.2)	10(45.5)	12(54.5)	50(83.3)	10(16.7)	84(100.)	0(0.00.)	114(100.)	0(00.0)	105(98.1)	2(2.9)
Others	1(9.1)	10(90.9)	18(81.8)	4(18.2)	10(45.5)	12(54.5)	50(83.3)	10(16.7)	84(100.)	0(0.00.)	114(100.)	0(00.0)	105(98.1)	2(2.9)
Cluster	**54.6**	**45.4**	**63.9**	**36.1**	**61.5**	**38.5**	**89.4**	**10.6**	**94.3**	**5.7**	**91.4**	**8.6**	**83.5**	**16.5**

Note. 0-39% = low practice; 40-69% = moderate practice, ≥ 70 % = High practice

Results in Table 3 shows that overall, the respondents within the age bracket < 20 years agreed to have practiced 54.6% self medication, 20-29 years had (63.9%) level of practice; 30-39 years had practice (61.5%) self-medication; 40-49 years had practiced self medication (89.4%),50-59 years had practice (94.3%); 60- 69 years had practice (91.4%) and >70 years also had practice (83.5 %) towards self-medication. However, respondents within the age bracket 50-59 years had higher 94.3% practice of self-medication while respondents within the age bracket < 20 years had lower 54.6% practice towards self-medication.

Testing of Hypotheses

Hypothesis One

There is no significant difference in the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on age.

Table 3: Summary of Chi-square Analysis of Difference in the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on age

		Self-medication practice				
		True False				
Variables	**N**	**O (E)**	**O (E)**	**X^2**	**Df**	**p-value**
Age						
20 - 25 years	11	**8(9.9)**	**3(1.1)**			
26-30years	22	18(19.8)	4(2.2)			
31-35years	22	18(19.8)	4(2.2)	11.976	6	.063
36-40 years	60	58(54.0	2(6.0)			
41-45 years	84	79(75.6)	5(8.4)			
46- 50 years	114	103(102.6)	11(11.4)			
51 years and above	107	94(96.3)	13(10.7)			

Table 3 shows the results of Chi-square test of independence for difference in the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on age. Since the ρ –value is greater than 0.05 level of significance (x^2=11.976, df = 6, p-value = .063), the null hypothesis was accepted- there is no significant difference in the self medication practice among workers in Federal Medical Center, Owerri, Imo State based on age.

Hypothesis Two

There is no significant difference in self-medication practices among workers in Federal Medical Center, Owerri, Imo State based on gender.

Table 4: Summary of Chi-square Analysis of Difference in the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on gender

		Self-medication practice				
		True False				
Variables	**N**	**O (E)**	**O (E)**	**X^2**	**Df**	**p-value**
Age						
Female	148	**137(133.2)**	**11(14.8)**			
Male	272	241(244.8)	31(27.2)	1.674	1	.196

Table 4 shows the results of Chi-square test of independence for difference in the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on gender. Since the ρ –value is greater than 0.05 level of significance (x^2=1.674, df = 1, p-value = .196), the null hypothesis was accepted. There is no significant difference in self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on gender.

Hypothesis Three

There is no significant difference in the complication of self- medication among workers in Federal Medical Center, Owerri, Imo State based on age.

Table 5: Summary of One-way ANOVA Showing Difference in the complication of self- medication among workers in Federal Medical Center, Owerri, Imo State based on age

Source	Sum of Squares	Df	Mean Square	*F*	*ρ*- value
Between Groups	363.259	6	60.543		
Within Groups	8344.825	413	20.205	2.996	.000
Total	8708.083	419			

Note. F = F-ratio valueρ- value>0.05 Not significant

Table 5 shows the results of ANOVA conducted to examine difference in the complication of self- medication among workers in Federal Medical Center, Owerri, Imo State based on age. Since the p-value is less than 0.05 level of significance ($F_{(6, 413)}$ = 2.996, p = .000). The null hypothesis was rejected. Therefore, there is significant difference in the complication of self- medication among workers in Federal Medical Center, Owerri, Imo State based on age.

DISCUSSION

These findings were discussed based on stated objectives and hypotheses. Research question one sought to ascertain the self- medication practices among workers in Federal Medical Center, Owerri, Imo State. The result of the finding in table 1 showed that workers in Federal medical center Owerri in cluster practice (73%) self-medication. The finding was in-view information gathered through health talk and seminars that self-practice of medication for oral health issues were statistically significant according to age gender and education (P< 0.05). Toothache (62.4%) is the main problem triggering self-medication and lack of time (44.6%) is the main reason for self-medication. The finding also agrees with that of Gholap, & Mohite (2013) who reported that majority (79.16%) of the respondents are practicing self medication for pain related complains 153 subjects (91.07%). He also founder reported that revalence of self medication related to minor ailments & 90 subjects (53.57%) to antibiotics. The finding was partially in consistent with that of Shrestha *et al.,* (2022) who found that during the COVID-19 pandemic, there was a 44.786% prevalence of self-medication. Analgesics, antibiotics, and nutritional supplements were commonly practiced drugs. Pharmacy and hospital outlets were the main sources of the drugs.

Research question two sought to ascertain the complications of self- medication among workers in Federal Medical Center, Owerri, Imo State. The result of this finding in table 2 showed that the overall, the workers in FMC Owerri experienced ($\bar{x}$ = 2.87; SD = .765) complications of self-medication. The finding was in line ascertaining the information obtain from seminars that the most common complications self-medicated were headaches (34.2%), dangerous drug interactions (33.1%), development of a substance use disorder (32.7%), masking of a severe disease (20.6%), and premature death (16.2%). The finding was in agreement with that of Khatony, (2020) who found that there was positive consequences and negative consequences, and subcategories included; time saving, cost savings, disease treatment, harming the health system, drug resistance, physical complications and death. The finding was also partially in line with that of Shrestha *et al.,* (2022) who asserted that self-medication during COVID-19 has resulted to complications of fear, anxiety, and rumors regarding immunity boosters, nutritional supplements, financial burden, and easy accessibility to even non-OTC drugs; all have their fair share in self-medication practices.

Research question three sought to ascertain the self- medication practices among workers in Federal Medical Center, Owerri, Imo State based on age. The result of this finding in table 3 showed that 94.3% respondents within the age bracket 50-59 years had the higher practice of self-medication while 54.6% respondents within the age bracket < 20 years had the lower practice towards self-medication. The finding agrees with that of Adama *et al.,* (2021) who affirms that after adjusting for potential confounders, easy access to medication without prescription (AOR= 8.4), age (AOR=4.1), education (AOR=4.2), and gender (AOR=1.7) were significantly associated with self-medication. The finding was also partially in line with that of Zeb *et al.,* (2022) who captured that age group of participants was majorly 20–25 years (61.0%), while others belonged to the age groups 25–30 years (20.6%), 30–35 years (9.8%), and 35–40 years (8.4%). Hence 30-

35 age group was the highest practice of self-medication.

CONCLUSION

Based on the findings, the following conclusions were drawn; Workers in Federal medical center Owerri in general have high practice of self-medication and their experiences of complications of self-medication were also high. Workers within the age 50-59 years practices of self-medication was high. Female workers practice of self-medication was higher than the male. Female workers experienced more complications of self-medication.

Age and gender were not significantly different in the self-medication practices, while only age had significant difference in the complications of self-medication.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Government should embark on educational programmes on drugs through health workers and aimed at improving drug dispensing modes through proper education, strict regulatory and managerial strategies to make drugs dispensing easily accessible and cost-effective.
2. Government should build the capacity of the health workers on self-medication through workshops and in-service training so as to equip them to educate other workers to strictly adhere to pharmaceutical advertising on every drug usage.
3. Health workers at different levels should publicize relevant information about the risk factors of self-medication to the public through health talks, seminars and posters with emphasis on its complications to reduce the practice of self-medication.

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