Annals of Case Reports

Adu SF, et al. Ann Case Rep: 8: 1325 www.doi.org/10.29011/2574-7754.101325 www.gavinpublishers.com

Research Article





Prevalence of and Factors Associated with Self-Medication among Health Professionals at Cape Coast Teaching Hospital, Ghana

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Citation: Adu SF, Jang W, Shin J, Kim J (2023) Prevalence of and Factors Associated with Self-Medication among Health Professionals at Cape Coast Teaching Hospital, Ghana. Ann Case Report. 8: 1325. DOI:10.29011/2574-7754.101325

Received: 23 May 2023, Accepted: 27 May 2023, Published: 30 May 2023

Abstract

Background: Irrational use of medication can put the lives of the people who engage in self-medication and those around them in danger. Among health professionals, it can also put their patients and the community in danger. Self-medication is a health concern in many developing countries including Ghana.

Study objective: This study examined the prevalence of and factors associated with self-medication among health professionals at Cape Coast Teaching Hospital, Ghana.

Methods: A cross-sectional study design was used to collect quantitative data at Cape Coast Teaching Hospital. Using proportionate sampling, 346 respondents were selected to take an online survey using a structured questionnaire. The data collected were analysed using frequencies, chi-squared tests, and multiple logistic regression with Jamovi version 2.2.5.

Results: The prevalence of self-medication was 81% among participants. The odds of self-medicating were higher for participants with mild, moderate, or severe perceived health needs compared to their colleagues with good health (OR = 12.07, 95% CI, 4.789 – 30.42; OR = 5.38, 95% CI, 2.372 – 12.22; OR = 2.86, 95% CI, 1.062 – 7.71, respectively). Educational level, job categorization, income, and health insurance status were not significantly associated with self-medication among participants.

Conclusion: Self-medication is commonly practiced among hospital staff. Drugs sold over the counter in pharmacies and other retail drug outlets must be regulated to reduce access to medication without a prescription. Further studies should be conducted to identify system gaps, such as policies that enable self-medication in Ghana.

Keywords: Self-Medication; Health Professionals; Hospital

Introduction

Self-medication, if practiced rationally, allows people to manage minor ailments on their own and access drugs without obtaining a prescription from or visiting a health professional. This saves time used in visiting health facilities when people experience minor ailments and enables health professionals to focus on more severe issues [1]. Self-medication is the act of treating oneself with medication or other remedies without the guidance or prescription of a healthcare professional. This can involve using over-thecounter drugs, herbal supplements, or prescription medications obtained without a doctor's approval or supervision [2]. This can involve purchasing over-the-counter drugs, herbal supplements, or other treatments, or using prescription medications obtained from sources other than a doctor or pharmacist. Self-medication is part of the concept of self-care, along with non-drug selftreatment, social support in illness, and first aid in everyday life. Self-medication allows individuals to play an active role in the management of their own health [2]. Although the practice enables people to be involved in their own healthcare and provides relief from minor symptoms or conditions, for it to be practiced safely, people must be able to accurately recognize symptoms, choose the most appropriate medications, and determine the appropriate dosage and dosage schedule, all while considering their medical history, contraindications, and possible side effects of the drugs [2,3]. If appropriately practiced, self-medication has the potential to reduce national healthcare expenditure and help reduce the costs of community-funded healthcare programs. Individuals are afforded convenience to attend to their own health concerns and have the opportunity to be educated on certain health issues. However, this may create the misconception that there is a drug treatment available for every health condition [4]. Additionally, relying solely on self-medication may lead individuals to delay seeking care from healthcare professionals, as they might falsely believe they have enough knowledge to treat their condition on their own. It is important to recognize the limitations of self-medication and to seek appropriate medical guidance when necessary. Globally, the prevalence of self-medication ranges between 11.2-93.7%, depending on the target population and country [5]. In developing countries, most people treat themselves by self-medicating. The prevalence of self-medication in developing countries ranges between 12.7-95%, which raises concerns regarding irrational use of medicines. Most medicines are dispensed in these countries without medical prescription or proper monitoring (up to 80% of all drugs purchased), and this is attributed to shortages of available healthcare services or healthcare services with trained healthcare workers being somewhat expensive [6,7]. Ghana faces several challenges with its healthcare system that affect the access to and quality of the healthcare services delivered. The country's National Health Insurance Scheme (NHIS) only financially protects 35% of

the country's population. Thus, healthcare costs remain high and are considered to be out of the financial reach of most Ghanaians. Out-of-pocket expenditure also remains high (53% in 2018) and can force people into poverty [8]. According to Agblevor, Missodey [9], consumers directly demand 82.5% of the drugs bought in urban chemical shops in Ghana. In rural areas, 78% of the drugs bought are directly demanded while only 1.5% are purchased using a prescription. The potential risks of self-medication include incorrect self-diagnosis, delays in seeking medical advice when needed, infrequent but severe adverse reactions, dangerous drug interactions, incorrect manner of administration, incorrect dosage, incorrect choice of therapy, masking of a severe disease, and risk of dependence and abuse [10]. Among health professionals, inappropriate self-medication can have effect on efficiency and productivity. It may risk the lives of not only those practicing but also those around them [11]. For health professionals, this will also put the lives of the patients they manage at risk. Limited literature on the prevalence and practice of self-medication among health professionals makes it difficult to determine what factors are associated with the practice of self-medication among health professionals. Therefore, this study aimed to determine the prevalence of and factors associated with self-medication among health professionals at Cape Coast Teaching Hospital, Ghana, and help policymakers control self-medication in Ghanaian hospitals by facilitating informed decision-making.

Methods and Materials

The cross-sectional study was conducted among the staff of Cape Coast Teaching Hospital, Ghana from September 2022 to October 2022. The data was collected through an online survey. Proportionate sampling was used, and the sample size of 346 staff was determined using Cochran's formula (n = (Z2 P(1-P))/d2). Participation in the study was voluntary and anonymous, and the data obtained is kept confidential. The study was reviewed and approved by the Ethical Review Committee of the Cape Coast Teaching Hospital, Ghana. The questionnaire used in this study was adapted from previous studies on the prevalence and determinants of self-medication practice among selected households in Addis Ababa [7]. The questions were further reviewed and refined by experts in the medical and pharmacy professions to ensure accuracy and appropriateness for this study. The questionnaire encompassed information regarding the respondent's educational level, job category, monthly income, health insurance status, and perceived severity of the condition for which they self-medicated. Covariates such as age, gender, religion, place of residence, and marital status, which are known risk factors for self-medication, were also included. The collected data was analysed using Jamovi version 2.2.5. The collected data was analysed and summarized using descriptive and inferential statistics. The results were presented in tables, and graphs. Multivariable logistic regression analyses were used to determine factors that influence self-medication. Associations

were considered significant when the p-value was less than 0.05. In this study, self-medication was defined as the act of choosing and using medications or drugs alleged to treat, manage, and/or prevent a disease or health condition without a doctor's prescription. The recall period used in the study was one year prior to the study.

Results

Sociodemographic characteristics of the participants

Out of the initial 346 participants, 277 responded to the study. After data cleaning, 271 participants remained for analysis. Table 1 provides an overview of the sociodemographic characteristics of the study's participants. Among the 271 participants, 53.9% were between the ages of 30 and 39, 37.3% were below 30 years old, and 8.8% were 40 years old and above. In terms of gender, 61.6% of the participants were female and 38.4% were male. In terms of educational level, 46.5% of the participants had a Bachelor's degree, 38% had a diploma-level tertiary education, and 1.5% had a basic-level education (primary to secondary/high school). With regard to marital status, 56.5% of the participants were single, 42.8% were married, and 0.70% were in other forms of relationships. The majority of participants (91.1%) were Christians, while 6.3% identified as Muslims, and 2.6% belonged to other religions. In relation to residence, 75.6% of the participants lived within a 10-minute drive away from the hospital, while 12.9% lived further away. Among the participants, nurses and midwives accounted for 49.8% of the sample. administrative staff comprised 24%, and medical doctors made up 11.1%. In terms of work experience, 59% of the participants had 5 years or less of experience, while 10.3% had more than 10 years of experience. Concerning monthly income, 67.5% earned between 2000-3999 cedis (\$169.84-\$339.59), 18.8% earned below 2000 cedis (\$169.84), and 13.7% earned 4000 cedis or above (>\$339.67). Over half of the participants (56.8%) had 1 to 3 dependents, while 16.2% had no dependents. In terms of annual healthcare expenditure, 33.6% spent between 100-499 cedis, while 17.3% spent 2000 cedis or above (\geq \$169.84). The majority of participants (91.9%) had an active NHIS subscription, and 22.5% had additional medical coverage in addition to the NHIS.

Variable	N	% of Total
Age group		
< 30 years	101	37.3%
30–39 years	146	53.9%
40–49 years	19	7.0%
\geq 50 years	5	1.8%
Gender		
Male	104	38.4%
Female	167	61.6%
Educational Level		
Basic education	4	1.5%

Certificate	13	4.8%
Diploma	103	38.0%
Degree	126	46.5%
Master's, equivalent and/or above	25	9.2%
Marital Status		
Single	153	56.5%
Married	116	42.8%
Other	2	0.70%
Religion		
Islam	17	6.3%
Christianity	247	91.1%
Other	7	2.6%
Location (proximity from the hospital)		
≤ 10 minutes away from hospital	205	75.6%
>10 minutes away from the hospital	35	12.9%
Unknown	31	11.4%
Occupation		
Administrative staff	65	24.0%
Medical doctors	30	11.1%
Nurses/midwives	135	49.8%
Other clinical staff	41	15.1%
Years of Work Experience		101170
< 5 years	160	59.0%
6-10 years	66	24.4%
> 10 years	28	10.3%
Unknown	17	63%
Income (per month)	17	0.570
< 2000 cedis	51	18.8%
2000–3999 cedis	183	67.5%
> 4000 cedis	37	13.7%
Number of Dependents	51	15.770
None	44	16.2%
1-3	154	56.8%
> 4	73	26.9%
Health Expenditure (per year)	13	20.970
< 100 cedis	50	18.5%
100-499 cedis	91	33.6%
500–999 cedis	52	19.2%
1000–1999 cedis	31	11.4%
> 2000 cedis	47	17.3%
Active NHIS	-+/	17.370
No	22	81%
Vec	24	Q1 Q0/2
Medical coverage besides NUIS	249	71.7 /0
No	210	77 5 0/
INU N	210	//.3%
Yes	61	22.5%

 Table 1: Sociodemographic characteristics of the participants.

Prevalence of self-medication

Figure 1 illustrates the self-medication behaviour among the participants. According to Figure 1, out of the total participants, 219 (81%) had engaged in self-medication within the 12 months preceding the study. Among those who self-medicated (219 participants), 160 (73.1%) did so one to three times during that period, while 13 (5.9%) self-medicated 10 times or more. Among the participants who self-medicated, 120 (54.8%) self-medicated due to their familiarity with the disease and drug used, 34 (15.5%) cited emergency reasons, and 23 (10.5%) mentioned poor services offered at the hospital as their motivation. Only 0.9% of participants reported self-medicating because they were too far from the hospital. Additionally, 94 (42.9%) of the participants obtained information for medication from health professionals, 60 (27.4%) used prescriptions from previous treatments, and 49 (22.4%) relied on their own expertise to self-medicate. The majority of participants (205, 93.6%) obtained their medication from pharmacies or drug stores.



Figure 1: Showing self-medication behaviour among participants in the past 12 months. [] represents variables.

Differences in self-medication practice among participants according to predisposing, enabling, and health need factors

Table 2 displays the differences in self-medication practice based on predisposing, enabling, and health need factors among participants. The prevalence rate of self-medication among participants was 81%. In terms of predisposing factors, educational level and occupation did not show significant association with self-medication prevalence (p-values = 0.835 and 0.409, respectively). The practice of self-medication was higher among participants with Masters' degrees (84%) and lowest among participants with a diploma-level education (69.2%). The prevalence was 83.7% among nurses and midwives, 83.3% among medical doctors, and 73.8% among

administrative staff. With regards to enabling factors, participants' income and health insurance status did not exhibit significant association with self-medication prevalence (p-values = 0.138 and 0.315, respectively). The prevalence of self-medication was 89.2% among staff who earned 4000 cedis and above per month, and 72.5% among staff who earned below 2000 cedis per month. Regarding health need factors, participants' perceived health and severity of health needs were significantly associated with self-medication practice (p-value < 0.001 for each). The prevalence of self-medication was higher among participants with health needs (88.3%) compared to those with no health needs (53.4%), and higher among participants who perceived their health needs to be mild (93.3%) compared to the other groups. The prevalence was 76.7% among participants who perceived their health needs to be severe and 53.4% for participants who perceived their overall health to be good. Religion and perceived safety were also significantly associated with self-medication among the participants (p-value = 0.029 and < 0.001, respectively).

	Self-medication practice						
Variable]	No		Yes	p-value		
	n	%	n	%			
Educational level					0.835		
Basic education	1	25.0%	3	75.0%			
Certificate	4	30.8%	9	69.2%			
Diploma	20	19.4%	83	80.6%			
Degree	23	18.3%	103	81.7%			
Master's, equivalent or above	4	16.0%	21	84.0%			
Occupation					0.409		
Administrative staff	17	26.2%	48	73.8%			
Other clinical staff	8	19.5%	33	80.5%			
Medical doctors	5	16.7%	25	83.3%			
Nurses and midwives	22	16.3%	113	83.7%			
Income (per month)					0.138		
< 2000 cedis	14	27.5%	37	72.5%			
2000–3999 cedis	34	18.6%	149	81.4%			
\geq 4000 cedis	4	10.8%	33	89.2%			
NHIS					0.315		
No	6	27.3%	16	72.7%			
Yes	46	18.5%	203	81.5%			
Health need					< 0.001		
No	27	46.6%	31	53.4%			
Yes	25	11.7%	188	88.3%			
Perceived severity of health need					< 0.001		
Good	27	46.6%	31	53.4%			
Mild	7	6.7%	97	93.3%			
Moderate	11	13.9%	68	86.1%			

Savara	7	22.2.0/	22	76 7 9/	
	/	25.5 %	23	/0./ %	0.040
Age group		20.00/		70.00/	0.949
< 30 years	21	20.8%	80	79.2%	
30–39 years	27	18.5%	119	81.5%	
40–49 years	3	15.8%	16	84.2%	
\geq 50 years	1	20.0%	4	80.0%	
Gender					0.334
Male	23	22.1%	81	77.9%	
Female	29	17.4%	138	82.6%	
Religion					0.029
Islam	7	41.2%	10	58.8%	
Christianity	45	18.2%	202	81.8%	
Other	0	0.0%	7	100.0%	
Location					0.15
≤ 10 minutes away from the hospital	34	16.6%	171	83.4%	
> 10 minutes away from the hospital	9	25.7%	26	74.3%	
Unknown	9	29.0%	22	71.0%	
Years of work experience					0.529
\leq 5 years	34	21.3%	126	78.8%	
6–10 years	11	16.7%	55	83.3%	
> 10 years	3	10.7%	25	89.3%	
Unknown	4	23.5%	13	76.5%	
Number of dependents					0.796
None	10	22.7%	34	77.3%	
1–3	28	18.2%	126	81.8%	
≥4	14	19.2%	59	80.8%	
Health expenditure (per year)					0.984
<100 cedis	9	18.0%	41	82.0%	
100–499 cedis	18	19.8%	73	80.2%	
500–999 cedis	10	19.2%	42	80.8%	
1000–1999 cedis	5	16.1%	26	83.9%	
≥ 2000 cedis	10	21.3%	37	78.7%	
Medical coverage besides NHIS					
No	43	20.5%	167	79.5%	0.318
Yes	9	14.8%	52	85.2%	
		1	1	1	1

Safety of self-medication practice					< 0.001
Very safe	3	15.0%	17	85.0%	
Safe	3	8.6%	32	91.4%	
Moderate	12	12.5%	84	87.5%	
Harmful	19	26.8%	52	73.2%	
Very harmful	8	21.1%	30	78.9%	
Unknown	7	63.6%	4	36.4%	

Table 2: Differences in self-medication practice according to predisposing, enabling, and health need factors.

Factors influencing self-medication among participants

Table 3 presents the factors that influence self-medication among participants. In the bivariate logistic regression analysis, only the perceived severity of health need was found to significantly influence self-medication among health professionals. The odds of self-medicating were higher for participants with mild, moderate, and severe health needs compared with those in good health (OR = 12.07, 95% CI, 4.79 - 30.42; OR = 5.38, 95% CI, 2.37 - 12.22; OR = 2.86, 95% CI, 1.06 - 7.71, respectively). When adjusted for covariates, the odds were even higher among participants with mild, moderate, and severe health needs compared with those in good health (aOR = 18.68, 95% CI, 5.76 - 60.62; aOR = 10.35, 95% CI, 3.36 - 31.88; aOR = 4.91, 95% CI, 1.28 - 18.83, respectively).

	95% Confidence			95% Confidence				
		inte	rval			inte	rval	
Variable	Crude odds ratio	Lower	Upper	p-value	Adjusted odds ratio	Lower	Upper	p-value
Educational level								
Basic education	1				1			
Certificate	0.75	0.06	9.62	0.83	0.58	0.02	14.97	0.74
Diploma	1.38	0.14	14.01	0.78	2.62	0.11	62.20	0.55
Degree	1.49	0.15	15.01	0.73	3.08	0.13	72.43	0.48
Master's	1.75	0.14	21.38	0.66	1.91	0.07	55.77	0.71
Occupation								
Administrative staff	1				1			
Other clinical staff	1.46	0.57	3.78	0.43	0.98	0.26	3.68	0.97
Medical doctors	1.77	0.59	5.36	0.31	0.00	0	-	0.99
Nurses and midwives	1.82	0.89	3.73	0.10	1.45	0.49	4.33	0.50
Income (per month)								
< 2000 cedis	1				1			
2000–3999 cedis	1.66	0.81	3.4	0.17	0.95	0.28	3.23	0.93
\geq 4000 cedis	3.12	0.93	10.43	0.06	0.00	0	-	0.99
NHIS								
No	1				1			

	1		1			1		1
Yes	1.65	0.61	4.46	0.32	2.99	0.68	13.25	0.15
Perceived severity of health need								
Good health	1				1			
Mild	12.07	4.79	30.42	<.001	18.68	5.76	60.62	<.001
Moderate	5.38	2.37	12.22	<.001	10.35	3.36	31.88	<.001
Severe	2.86	1.06	7.71	0.038	4.91	1.28	18.83	0.02
Age group								
< 30 years	1				1			
30–39 years	1.16	0.61	2.19	0.65	1.73	0.62	4.85	0.29
40-49 years	1.4	0.37	5.26	0.62	1.44	0.16	13.05	0.75
\geq 50 years	1.05	0.11	9.9	0.97	0.13	0.003	4.503	0.26
Gender								
Male	1				1			
Female	1.35	0.73	2.49	0.34	1.85	0.74	4.64	0.19
Religion								
Islam	1				1			
Christianity	3.14	1.14	8.7	0.028	2.31	0.56	9.49	0.25
Others	0.00	0	-	0.99	0.00	0	-	0.99
Location								
\leq 10 minutes away from the hospital	1				1			
> 10 minutes away from the hospital	0.57	0.25	1.33	0.197	0.66	0.22	1.99	0.46
Unknown	0.49	0.21	1.15	0.099	0.41	0.12	1.38	0.15
Years of work experience								
\leq 5 years	1				1			
6–10 years	1.35	0.64	2.86	0.43	1.2	0.38	3.77	0.76
> 10 years	2.25	0.64	7.9	0.21	1.45	0.13	16.32	0.76
Unknown	0.88	0.27	2.86	0.83	0.75	0.14	3.87	0.73
Number of dependents								
None	1				1			
1–3	1.32	0.59	2.99	0.5	1.00	0.32	3.13	0.99
≥4	1.24	0.5	3.09	0.65	1.09	0.28	4.21	0.90
Health expenditure (per year)								
< 100 cedis	1				1			
100–499 cedis	0.89	0.37	2.16	0.8	0.40	0.12	1.4	0.15

500–999 cedis	0.92	0.34	2.5	0.87	0.68	0.19	2.48	0.56
1000–1999 cedis	1.14	0.34	3.78	0.83	1.05	0.18	6.18	0.96
≥ 2000 cedis	0.81	0.3	2.22	0.69	0.48	0.12	1.97	0.31
Safety of self-medication practice								
Very safe	1				1			
Safe	2.07	0.54	7.87	0.29	2.25	0.26	19.46	0.46
Moderate	3.9	1.07	14.22	0.04	0.96	0.17	5.31	0.96
Harmful	2.56	1.15	5.7	0.02	0.38	0.07	2.01	0.26
Very harmful	1.37	0.54	3.51	0.51	0.64	0.10	3.95	0.63
Unknown	0.21	0.05	0.79	0.02	0.08	0.01	0.73	0.025

 Table 3: Factors influencing self-medication among participants.

Discussion

This study was conducted to examine the prevalence of and factors associated with self-medication among staff at the Cape Coast Teaching Hospital, Ghana. The prevalence was 81% among the hospital staff, which is similar to other studies conducted in similar settings [12,13]. The disparity in prevalence rates can be attributed to the operational definition of self-medication and recall period used in each study. Findings from this study also showed that most participants (93.6%) obtained their medication from pharmacies or drug stores. This is similar to the findings of studies conducted in South India and Maputo City, Mozambique [14,15]. The lack of strict policies on drug acquisition and use without a prescription in developing countries [16] may enable people, especially health professionals, to easily access and use certain medications without prescription. Education, occupation, income and health insurance showed no significant association with self-medication practice among health professionals in this study. This finding is contrary to findings from other studies [7,17-21]. The majority of the participants in this study (98.5%) had a tertiary level of education owing to Cape Coast Teaching Hospital being a tertiary hospital. This high educational level among the participants may be the reason for the lack of a significant association between educational level and self-medication. However, the odds of self-medicating were 1.38, 1.49, and 1.75 times higher for participants with a diploma, bachelor's, and master's level of education, respectively, compared to participants with basic education, although the association was not significant. Chindhalore, Dakhale and Giradkar [20] found a higher prevalence of self-medication among medical students compared to paramedical students (p-value = 0.019) in a tertiary care teaching institute in India. In this study, nurses and midwives, medical doctors, and other clinical staff were more likely to self-medicate compared to administrative staff, although the association was

not significant (OR = 1.82, 95% CI, 0.89 - 3.73; OR = 1.77, 95% CI. 0.59 - 5.36; OR = 1.46, 95% CI. 0.57 - 3.78, respectively). As determined in previous studies, people with a tertiary-level education are more likely to self-medicate. Therefore, the lack of a significant association in the practice of self-medication among the participants in this study, despite the majority having a tertiarylevel education, is notable. Additionally, participants who had active NHIS memberships in this study were more likely to selfmedicate than those who did not (OR = 1.65, 95% CI, 0.61 - 4.46). This finding aligns with those from another study conducted in Ghana. [22]. People self-medicate in Ghana because of the lower costs of drugs in open markets, pharmacies, and chemical shops. Participants' perceived health needs and health need severity were found to be significantly associated with self-medication practice in this study (p < 0.001 for each). The odds of self-medicating were higher among participants with mild, moderate, or severe health needs, compared with participants who had no health needs (OR = 12.07, 95% CI, 4.79 - 30.42; OR = 5.38, 95% CI, 2.37 -12.22 and OR = 2.86, 95% CI, 1.06 - 7.71, respectively). When adjusted for covariates, the odds ratio was 18.68, 10.35, and 4.91, respectively, compared with those for participants with no health needs. Although other studies [19,23,24] failed to determine the association between perceived health needs and self-medication, they were able to reveal that participants self-medicated because of the nature of their illness. The government and other stakeholders must consider the regulation of the sale of drugs used for selfmedication, especially antibiotics, in pharmacies and other retail drug outlets to reduce access to such medications without a prescription [25]. Changing the status of some of these drugs from OTC to prescription medication and controlling access to them can limit easy access to these medication without a prescription and encourage people to utilize health facilities. Introducing other financial incentives, such as coverage of medical costs by

employers if a copy of a prescription is produced, could encourage staff to utilize health services [26]. Health professionals must be educated on the dangers of self-medicating, especially in relation to misdiagnosis, abuse, and addiction [1]. Educating staff on the dangers of self-medication could help them make safer choices when they have health needs. Further studies must be conducted to identify system gaps such as policies that enable self-medication in Ghana. This study only examined the contextual factors that influence self-medication among health professionals. However, other factors that were not examined in this study are equally important in influencing the practice of self-medication. These factors include the availability of policies and laws that prohibit or encourage the practice and the extent to which they have been implemented. In addition, the stakeholders involved in the practice of self-medication must be examined to determine their level of influence and the appropriate measures needed to properly address the behaviour. Implementing measures that only address the contextual factors without examining and addressing these other factors will not solve the issue.

Study limitations

This study did not examine the policies and laws in Ghana that influence self-medication among the population. The period of data collection was very limited, which likely had an effect on the study's response rate. Cross-sectional studies are also not useful in establishing clear cause and effect relationships. Additionally, the study focused on health professionals in a teaching hospital, and as such, the sample is not representative of the general population. Although the findings are not generalizable, the study revealed an association between participants' perceived health needs and selfmedication, which adds to the existing literature.

Conclusion

This study showed that self-medication is a common practice among the staff at Cape Coast Teaching Hospital, Ghana. Health professionals are more likely to self-medicate when they feel mildly ill, regardless of their educational level, job categorization, income, or health insurance status. The severity of illness also affects the magnitude of self-mediation use. Health professionals primarily self-medicate due to their familiarity with the disease and drugs, emergencies, and poor services offered at the hospital. For health professionals, the perceived safety of the practice was significantly associated with self-medication. It is important to regulate drugs sold over the counter in pharmacies and other retail drug outlets to control access to medication without a prescription. Further studies should be conducted to identify system gaps, such as policies that enable self-medication in Ghana. **Funding:** This research was supported by the Korea Health Industry Development Institute (KHIDI), Republic of Korea (HD22C20450012982076870002; Gachon University, 202210380002).

Acknowledgment: We are grateful to all the participants who willingly took part in the study.

Data Availability Statement: The data are available upon reasonable request from the corresponding author.

Conflict of Interest: The authors declare no conflict of interest.

Disclosure: This article is a condensed form of the first author's master's degree for the Graduate School of Public Health, Yonsei University, Seoul, Republic of Korea.

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