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Factors associated with health-seeking behaviour among informal sector workers in the Kumasi metropolis of Ghana

Dina Adei[1], Anthony Acquah Mensah[1]*, Williams Agyemang-Duah[2] and Lewis Aboagye-Gyasi[1]

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*Corresponding author: Anthony Acquah Mensah, Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana
E-mail: menacqant1@gmail.com

Reviewing editor:
Yang Gao, Department of Sport, Physical Education and Health, Hong Kong Baptist University, Hong Kong

Additional information is available at the end of the article

Even though studies have established that informal sector workers are prone to occupational-related diseases, not much is known about their health-seeking behaviour. This study aims to examine drivers of health-seeking behaviour among

ABOUT THE AUTHORS

Dr. Mrs Dina Adei holds a Bachelor of Arts degree in Economics and Sociology, a Masters of Science in Development Policy and Planning and a PhD in Planning from Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. She also holds a Certificate in Occupational Health Nursing from University of California, Irvine, and is a board Certified Registered Nurse in California. She joined the Department of Planning in January 2006. Currently she is a senior lecturer in the department. Dr. Mrs Dina Adei has interest in development economics, health planning and occupational health and safety issues.

Mr. Anthony Acquah Mensah holds a Master of Philosophy in Planning and a Bachelor of Science in Development Planning from the Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. He served as a Teaching and Research Assistant in the Department of Planning from 2016 to 2017 academic year. He has co-authored and published more than one peer-reviewed articles in reputable international journals. Anthony Acquah Mensah has interest in land governance, sustainable and inclusive cities, and health planning.

Mr. Williams Agyemang-Duah holds an M.Sc. in Development Policy and Planning from the Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. He obtained his Bachelor's degree from the Department of Geography and Rural Development in the same university and served as a Teaching and Research Assistant in the department. He has co-authored and published more than **43 peer-reviewed articles** in reputable international journals such as GeoJournal (Springer), Journal of Transport & Health (Elsevier), BMC Public Health, Journal of Gerontological Social Work (Taylor and Francis), Journal of Integrative Medicine (Elsevier), Cogent Medicine, BMC Geriatrics, BMC Medical Informatics and Decision Making, Land Use Policy (Elsevier), Cogent Economics and Finance, Substance Abuse Treatment, Prevention, and Policy (BMC), Gerontology and Geriatric Medicine (SAGE), BMC Research Notes, Journal of Public Health (Springer), International Journal for Equity in Health (BMC), BMC Complementary and Alternative Medicine, Gerontology and Geriatric Medicine (Sage) Forests, Trees and Livelihoods (Taylor and Francis), International Journal of Africa Nursing Sciences (Elsevier), Journal of Renewable Energy (Hindawi), Journal of Traditional and Complementary Medicine (Elsevier), Cogent Social Sciences and Geography Journal (Hindawi) He serves as a regular reviewer for journals such as International Journal for Equity in Health (BMC), Gerontology, and Geriatric Medicine (SAGE), Development in Practice (Taylor and Francis), Journal of Affective Disorders (Elsevier), International Journal of Africa Nursing Sciences (Elsevier), Journal of Public Affairs (John Wiley and Sons), Public Health in Practice (Elsevier), Forum for Development Studies (Taylor and Francis), Journal of Social Service Research (Taylor and Francis), African Health Sciences (Makerere University Medical School, Uganda, BMC Public Health, Journal of Public Health (Springer) and Health Research Policy and Systems (BMC). His research interest covers population ageing, public health, health services/planning research, informal/family caregiving, human-environment relationships and any other related social science research. His research utilizes qualitative, quantitative, and a mix of the two approaches. He welcomes any form of collaboration in his field of specialization.

Mr. Lewis Aboagye-Gyasi holds a Bachelor of Science (Honours) in Development Planning from the Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana. He served as a Teaching and Research Assistant in the Department of Planning from 2020 to 2021 academic year. Lewis Aboagye-Gyasi has interest in education planning and health services planning.

informal sector workers in the Kumasi metropolis of Ghana. A cross-sectional survey was conducted. Simple random sampling technique was used to select 350 informal sector workers. Questionnaires were used to collect the data. The study revealed that 33.5% of the participants practiced good health-seeking behaviour when they developed occupational-related diseases in 2016. The study further revealed that informal sector workers with five or more dependents (AOR: 8.482; CI: 1.265–56.872; p = 0.028) and those who spent more than an hour at a health facility (AOR: 24.040; CI: 8.508–67.927; p < 0.0001) were more probable to exhibit good health-seeking behaviour. Informal sector workers without active National Health Insurance Scheme [NHIS] (AOR: 0.149; CI: 0.052–0.430; p < 0.0001) and employees were less likely to adopt good health-seeking behaviour. Given the limited formal healthcare system and resources available, socio-demographic factors should be taken into consideration when formulating policies to encourage informal sector workers to adopt good health-seeking behaviour.

Subjects: Health & Development; Sustainable Development; Environment & the Developing World; Health & Society; Public Health Policy andPractice

Keywords: Occupational Diseases; Health-seeking behaviour; Informal Sector Workers; Kumasi Metropolitan Area; Ghana; Occupational Health; Developing Countries

1. Introduction

Recent trends in occupational diseases have led to the proliferation of studies that seek to prevent and reduce occupational death (Adei et al., 2021a; Bell & Mazurek, 2020; Bonsu et al., 2020; Sepkowitz & Eisenberg, 2005). In 2016, work-related diseases accounted for 1.52 million (80.7%) occupational deaths worldwide and 63.28 million (70.5%) of disability-adjusted life years [DALYs] (World Health Organization & International Labour Organization, 2021). Notwithstanding the figures for global occupational diseases and death, the statistics for Africa appears gloomier. World Health Organization & International Labour Organization (2021) reveal that the fatality rate of Africa's occupational death is approximately 15 per 100,000 persons in the active labour force. The magnitude of occupational diseases and deaths is associated with the informality of work in developing countries (Bonsu et al., 2020).

According to Sethuraman (1976) and Afon (2007), the informal sector is easy to enter, family-owned, operate on a small scale, use labour-intensive, indigenous resources in unregulated markets. The informal sector plays a critical role in income generation, employment and economic and social development in the developing countries. Nevertheless, informal sector workers suffer from exploitation in the form of working hours, lack of holidays, inadequate job security or generally low pay with regard to working conditions (Alfers, 2009). Sethuraman (1976) asserts that while the formal sector workers are protected in the form of wages and workplace safety, the informal sector does not. According to Asampong et al. (2015), the informal sector is linked to poor living and hazardous working conditions. Workers in the informal sector are subjected to high levels of occupational risks with minimal protection. Even though literature suggests that workers in the informal sector are more susceptible to occupational diseases, little is known about their health-seeking behaviour.

Health-seeking behaviour plays an important role in enhancing the health status of a population and knowledge of their health experience which speeds diagnosis and treatment (Abongile, 2010; Shamsu-Deen & Adadow, 2019). In the light of understanding the health of the populace, there is the need to ascertain the health-seeking behaviour of workers in the informal sector as the sector employs over 80% of the labour force in Sub-Saharan Africa (Benjamin & Mbaye, 2012). According to Dill (2012), health-seeking behaviour is any activity carried out by people who consider themselves to have a health problem or are ill to discover a suitable

treatment. The desired or good health-seeking behaviour is the quest for medical attention from a skilled health professional in a reputable healthcare facility during an illness. Olenja (2003) identified various factors that influence health-seeking behaviours such as client and provider-based factors, social and demographic factors, cost of treatment, social networks as well as the biological signs and symptoms. Factors such as economic, sociodemographic, geographical, social psychological and sociocultural have also been as cited in Mckinlay (1972) and Ward et al. (1997) as influencing health seeking behaviour. Asampong et al. (2015) noted that perceived high cost of health care and lack of health insurance was the main barriers of good health-seeking behaviour encountered by electronic waste workers in Ghana. Egbujie et al. (2018) argue that long waiting time is a significant source of frustration for patients visiting formal healthcare facilities in South Africa.

The literature on occupational health and safety among workers in the informal sector in Ghana have stressed on hazard exposure, occupational injuries and diseases, use of protective equipment, social protection, economic cost and institutional responses (Adei et al., 2021a; Adei et al., 2019a; Adei et al., 2019b; Adei & Kunfaa, 2007; Adei et al., 2021b; Alfers, 2009; Ametepeh et al., 2013; Annan et al., 2015; Bonsu et al., 2020; Clarke, 2005; Adei et al., 2021c). Most of these studies report that informal sector workers are exposed to occupational diseases such as musculoskeletal disease, malaria, hypertension, respiratory disease, mental health problems, gastritis, skin and occupational-related diseases (Adei et al., 2019a; Ametepeh et al., 2013; Burns et al., 2019). However, there has been little effort in expanding academic knowledge on the health-seeking behavior of informal sector workers when they suffer from occupational-related diseases in Ghana. For instance, Shamsu-Deen and Adadow (2019) revealed the predictors of health-seeking behavior such as health insurance, level of savings, social support, marital status and education among female migrant head porters. Qualitative studies by Asampong et al. (2015) and Akazili et al. (2018) revealed cost and poverty as factors affecting healthcare services utilization. However, these studies do not give a clear view on the health-seeking behaviour among informal sector workers.

The study's aim is to address this knowledge gap by examining the socio-demographic and associated factors that influence health-seeking behaviour among informal sector workers in Ghana. As the proportion of the labour force engaged in the informal sector keeps increasing, assessing their health-seeking behaviour when they suffer from occupational-related diseases is critical for a sustainable workforce. Furthermore, understanding the health-seeking behaviour of informal sector workers will enable policy makers to design policies on behavioural health promotion which focuses more on the informal sector.

2. Materials and methods

2.1. Study area and design

This study is part of a broader project that was carried out from January to March 2017 on occupational health and safety practices among workers in the informal sector in Kumasi Metropolitan area of Ghana. The research was undertaken at the Suame and Subin sub-metropolis of the Kumasi Metropolitan Area. Suame Magazine (the biggest mechanical garage in West Africa) and Asafo mechanical garages are located at Suame and Subin sub-metropolis, respectively. A cross-sectional survey design was adopted to elicit responses from informal sector workers (expressly welders and fish processors). The rationale for employing the cross-sectional survey design was to collect data at one point in time while examining current health-seeking practices among informal sector workers.

2.2. Study populations and sampling

A census of welders and fish processors at the Suame and Subin sub-metropolis revealed a population of 200 fish processors and 190 master welders. The sample size for the study was determined using the Slovin's sample size formula (Guilford & Fruchter, 1979) considering

n = sample size (the number of masters selected from each economic activity listed above); α = 0.05 error margin and a 95% confidence interval, and N = the sample frame resulting from each headcount. The Slovin formula was distinctively applied to welders and fish processors. A sample size of 262 (129 master welders and 133 fish processors) was obtained. A nonresponse rate of 2.3 percent for the fish processors and 15 percent for the master welders was recorded during data collection. This led to a sample size of 110 master welders and 130 fish processors. To ensure triangulation of the information provided by master welders, a senior apprentice was chosen for every master welder enlisted, totalling 220 welders (110 masters and 110 apprentices). The fish processors had no apprentices therefore; the study focused on fish processors who were actively smoking the fish. The final sample size was 350; 130 fish processors and 220 welders (110 apprentices and 110 masters). A master welder is a person who has great skills in welding, owns a welding shop and has apprentices working under him whereas an apprentice is a person learning the skills of welding under the tutelage of a master welder. An employee in this study is defined as a person employed to smoke fish for a salary.

2.3. Data collection technique

Data were collected after informed consent was obtained from participants. The research was guided by standard research ethics where confidentiality, anonymity, right to withdraw consent, right to decline the participation and skipping of any question on the research instrument were upheld. A researcher-administered semi-structured questionnaire was used to gather data from the study participants. The researcher-administered semi-structured questionnaire elicited data on (a) socio-demographic characteristics; (b) exposure to occupational diseases and (c) health-seeking behaviour when suffering from an occupational disease in 2016. Approximately 30 minutes was taken to interview each of the participants. Respondents were administered the same questionnaire. The original questionnaire was in English but was later translated to Twi (popular local language in Kumasi) for effective communication. The World Health Organization (2010) process of translating questionnaires was adopted. The response from the participants was translated and written in English for analyses.

2.4. Quality assurance

To ensure data quality, the questionnaire was pre-tested among 15 fish processors and welders. The participants interviewed during the pre-test were not considered during the final study. Neither were the results of the pre-test included in the study. Relevant adjustments were made to the questionnaire based on the findings of the pre-test. The questionnaire was found to be reliable (48 items; α = .71) and valid.

2.5. Measurement

The study focused on unearthing the demographic and socio-economic characteristics and associated factors that determine health-seeking behaviour of informal sector workers when suffering from an occupational disease. The dependent variable was health-seeking behaviour . Health-seeking behaviour was measured as a dichotomous variable with “0 representing not seeking treatment in a health facility” and “1 indicating seeking treatment in a health facility” in the year preceding the survey. In this study, good health-seeking behaviour is the quest for medical attention from a skilled health professional in a reputable healthcare facility (Dill, 2012). The predictor variables used in this study were category of participants (1 = master, 2 = apprentice, 3 = employee), sex (1 = male, 2 = female), age [in years] (1 = 49 or below, 2 = 50 or more), ethnic grouping (1 = Akan, 2 = non-Akan), educational attainment (1 = no formal education, 2 = basic education, 3 = SSS/SHS, 4 = tertiary education), religious affiliation (1 = Christianity, 2 = non-Christians), income (GHS) (1 = 1000 or below, 2 = above 1000), marital status (1 = married, 2 = unmarried), number of dependents (1 = none, 2 = 2–4, 3 = 5 or more), National Health Insurance Scheme enrolment status (1 = Yes, 0 = No), working experience (1 = 4 years or below, 2 = 5–10 years, 3 = Above 10 years), membership of association (1 = Yes, 0 = No), waiting time (1 = 60 mins or below, 2 = 61 mins or above) and distance travelled (1 = 4 km or below, 2 = above 4 km).

2.6. Analytical framework

Descriptive and inferential statistics embedded in Statistical Package for Social Sciences (SPSS Statistics v.23) were used to analyze the survey data. The descriptive statistics include percentages and frequencies whereas the inferential statistics include chi-square (and fisher exact test for data sets in which the frequencies were less than 5) and multiple logistic regression. Multiple logistic regression analysis was used to determine factors that explain informal sector workers' health-seeking behaviour when suffering an occupational disease. Multiple logistic regression was employed for the statistical analysis because of its use in predicting categorical outcomes from categorical and continuous predictors (Field, 2018). The Crude Odds Ratio (COR) and the Adjusted Odds Ratio (AOR) were presented in this study. The multiple logistic regression model is expressed below.

$$P(Y) = \frac{1}{1 + \mathrm{e} - \left(b_0 + b, X_1 \mathrm{i} + b_2 X_{2i} + \ldots + b_n X_{n_i}\right)}$$

Where Y is the categorical variable. Let X be the independent variable or the predictor variable. Where *b* is the regression coefficient corresponding to X. We hypothesized that socio-demographic characteristics are determinants of health-seeking behaviour of informal sector workers. To test this, all independent variables were included to run the analysis. The results generated are significant at *p*-value ≤ 0.05. Also, R^2 (Nagelkerke) and Hosmer–Lemeshow test were used to measure the fitness of the multiple logistic regression model.

3. Result

3.1. Socio-demographic characteristics of participants

Table 1 presents result of the socio-demographic and other variables of the participants by good and bad health-seeking behaviour. The response rate was 97.7% and 85% for fish processors and welders, respectively. The study revealed that 42% of the participants were masters and 63.2% were males. The dominant age distribution of respondents was 50 years and above (69.3%), and 59% had received secondary and tertiary education. Additionally, 55.7% were married, 49.5% had 5 or more dependents and 93.9% were Christians. The result indicates that 23.6% of the participants are members of Ashanti Regional Association of Garages and Fish processors Association. The study further revealed that 79.2% of respondents worked for 10 years or more and 90.6% earned less than GHS 1000 each month as income. The research showed that only 24.1% of respondents had registered for the National health insurance scheme, 94.3% travelled 4 km or less to access health care and 59.4% spent 1 hour or less at the health facilities.

The chi-square (and fisher exact test for data sets in which the frequencies were less than 5) performed showed that there were significant differences between category of respondent (p = 0.009), age (p = 0.010), marital status (p = 0.028), number of dependents (p = 0.030), working experience (p = 0.007), monthly income (p = 0.002), membership of association (p = 0.005), NHIS enrolment (p = 0.023), distance (p = 0.011) and waiting time at a health facility (p = 0.019) in relation to good and bad health-seeking behaviour among participants (see, Table 1). The results show that 33.5% and 66.5% of participants had good and bad health-seeking behaviour, respectively.

3.2. Self-reportedoccupational diseases among informal sector workers

Self-reported occupational diseases among informal sector workers has been reported in Table 2. Approximately 61% of the participants self-reported occupational diseases in 2016. In relation to the forms of occupational diseases participants were exposed to, the study found that 71.2% had malaria, 34.9% had respiratory diseases, 24.5% reported of eye diseases, 22.7% had hypertension, 5.7% had musculoskeletal diseases, 5.7% had urinary tract infection, among others. In relation to health-seeking, the results indicate that 33.5% of the participants practiced good health seeking behaviour (sought for healthcare in a health facility). Correspondingly, 28.3% and 13.7% of

Table 1. Socio-demographic characteristics of participants

		Health-Seeking Behaviour of workers in the Informal sector						
		No = 141		Yes = 71		Total		P-VALUE
		N	%	N	%	N = 212	%	
Category of respondent	Master	41	29.1	48	67.6	89	42.0	0.009*
	Apprentice	57	40.4	9	12.7	66	31.1	
	Employee	43	30.5	14	19.7	57	26.9	
Sex	Male	90	63.8	44	62.0	134	63.2	0.791
	Female	51	36.2	27	38.0	78	36.8	
Age	30–49	56	39.7	9	12.7	65	30.7	0.010*
	50 or above	85	60.3	62	87.3	147	69.3	
Educational attainment	No formal	26	18.4	15	21.1	41	19.3	0.658
	Basic	28	19.9	18	25.4	46	21.7	
	Secondary	70	49.6	32	45.1	102	48.1	
	Tertiary	17	12.1	6	8.5	23	10.9	
Marital Status	Married	71	50.4	47	66.2	118	55.7	0.040*
	Single	70	49.6	24	33.8	94	44.3	
Number of dependents	None	44	31.2	7	9.9	51	24.1	0.030*
	1–4	46	32.6	10	14.1	56	26.4	
	5 or more	51	36.2	54	76.1	105	49.5	
Religion	Christian	133	94.3	66	93.0	199	93.9	0.695
	Non-Christian	8	5.7	5	7.0	13	6.1	
Working experience (in years)	Below 4	7	5.0	1	1.4	8	3.8	0.007*
	5–10	31	22.0	5	7.0	36	17.0	
	Above 10	103	73.0	65	91.5	168	79.2	
Monthly Income	<1000	134	95.0	58	81.7	192	90.6	0.003*
	>1000	7	5.0	13	18.3	20	9.4	
Member of Association	Yes	18	12.8	32	45.1	50	23.6	0.005*
	No	123	87.2	39	54.9	162	76.4	
NHIS	Yes	17	12.1	34	47.9	51	24.1	0.023*
	No	124	87.9	37	52.1	161	75.9	
Distance	< 4 km	139	98.6	61	85.9	200	94.3	0.011*
	> 4 km	2	1.4	10	14.1	12	5.7	
Waiting time	< 1 hour	113	80.1	13	18.3	126	59.4	0.019*
	> 1 hour	28	19.9	58	81.7	86	40.6	

informal sector workers sought for healthcare at the hospital and clinic, respectively, when suffering from an occupational disease. Further analysis showed that 80.2%, 2.8%, 0.5%, 9.0% and 0.5% of the informal sector workers sought for healthcare from pharmaceutical shops, herbalist, spiritualist, first aid at workplace and home treatment when suffering from an occupational disease, respectively.

3.3. Socio-demographic and associated factors related to health-seeking behaviour

The output from the binary logistic regression parameters are set out in Table 3. The result indicates that number of dependents, enrolment in the NHIS, category of respondents and wait time at health facility are significant explanatory variables of informal sector workers' health-seeking behaviour. Informal sector workers with five or more dependents were 8.482 times

Table 2. Self-reported occupational diseases among workers in the informal sector

Variable		Frequency	Percent
Self-reported occupational diseases in 2016	Yes	212	60.6
	No	138	39.4
	Total	**350**	**100**
Forms of diseases informal sector workers self-reported	Hypertension	48	22.7
	Diabetes	2	0.9
	Malaria	151	71.2
	Respiratory (chronic cough and asthma)	74	34.9
	Blurred vision	52	24.5
	Diseases of the ear	2	0.9
	Skin diseases	7	3.3
	Musculoskeletal disease	12	5.7
	Urinary tract infection	12	5.7
	Headache	8	3.8
	Total *	**368**	**173.6**
Forms of healthcare-seeking behaviour	Hospital	60	28.3
	Clinic	29	13.7
	Chemical/Pharmaceutical shop	170	80.2
	Herbalist	6	2.8
	Spiritualist	1	0.5
	First aid given at workplace	19	9.0
	Home treatment	1	0.5
	Total *	**286**	**134.9**

* Multiple response

significantly more likely to exhibit good health-seeking behaviour compared to those with less than four dependents (AOR: 8.482; CI: 1.265–56.872; p = 0.028). For enrolment in NHIS, informal sector workers without active NHIS were 85.1% times less likely to adopt good health-seeking behaviour compared to their counterparts with active NHIS enrolment (AOR: 0.149; CI: 0.052–0.430; p < 0.0001). Employees were found to be associated with lower odds of practicing good health-seeking compared to masters (AOR: 0.220; CI: 0.058–0.831; p = 0.026). Informal sector workers who spent more than an hour at a health facility were associated with greater odds of adopting good health-seeking behaviour compared to their counterparts spending less than an hour in utilizing healthcare (AOR: 24.040; CI: 8.508–67.927; p < 0.0001).

4. Discussion

This study examines the socio-demographic and associated factors that influence health- seeking behaviour among workers in the informal sector (fish processors and welders) in the Kumasi Metropolitan area of Ghana. This study revealed that 33.5% of the participants practiced good health-seeking behaviour (sought for healthcare in a health facility). Shamsu-Deen and Adadow (2019) evinced that 75.5% of the migrant female porters seek healthcare outside a health facility in Ghana. Kuuire et al. (2016) study in Ghana revealed that 48% of the study participants practiced good health-seeking behaviour. A qualitative study by Asampong et al. (2015) points to bad health-seeking behaviour among electronic waste workers, which includes self-treatment, traditional medicine and licensed chemical/drug stores. Nevertheless, a study by Ahmed et al. (2000) has shown that 56.7% of participants practiced good health-seeking behaviour in Bangladesh.

Table 3. Multivariable regression of the relationship between explanatory variables and health-seeking behaviour of informal sector workers

Variable	COR	95% C.I. for EXP(B)		p-value	AOR	95% C.I. for EXP(B)		p-value
		Lower	Upper			Lower	Upper	
Age (years)								
30–49 (Ref)	1.00				1.00			
50 or above	**4.539**	**2.088**	**9.864**	**.038**	.905	.238	3.447	.884
Number of dependents								
None (Ref)	1.00				1.00			
1–4	1.366	.478	3.907	.560	1.987	.376	10.505	.419
5+	**6.655**	**2.748**	**16.120**	**.018**	**8.482**	**1.265**	**56.872**	**.028**
Marital Status								
Married (Ref)	1.00				1.00			
Single	**.518**	**.286**	**.936**	**.029**	1.652	.534	5.109	.383
Membership with Association								
Yes (Ref)	1.00				1.00			
No	**.178**	**.090**	**352**	**.010**	1.909	.555	6.566	.305
Work Experience								
4 years or below (Ref)	1.00				1.00			
5–10 years	1.129	.113	11.243	.918	1.382	.102	18.720	.808
Above 10 years	4.417	.531	36.735	.169	1.127	.095	13.428	.925
NHIS								
Yes (Ref)	1.00				1.00			
No	**.149**	**.075**	**.297**	**.000**	**.149**	**.052**	**.430**	**.000**
Category of Respondents								
Master (Ref)	1.00				1.00			
Apprentice	**.135**	**.060**	**.305**	**.000**	.227	.047	1.109	.067
Employee	**.278**	**.134**	**.579**	**.001**	**.220**	**.058**	**.831**	**.026**
Income (GHS)								
<1000 (Ref)	1.00				1.00			

(*Continued*)

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Table3. (*Continued*)

Variable	COR	95% C.I. for EXP(B)		p-value	AOR	95% C.I. for EXP(B)		p-value
		Lower	Upper			Lower	Upper	
1000 or more	**4.291**	**1.628**	**11.308**	**.003**	1.223	.254	5.897	.802
Distance to HF								
< 4 km (Ref)	1.00				1.00			
4 km or more	**11.393**	**2.424**	**53.558**	**.002**	7.976	.889	71.549	.064
Waiting time at HF								
<1 hour (Ref)	1.00				1.00			
>1 hour or more	**18.005**	**8.677**	**37.363**	**.000**	**24.040**	**8.508**	**67.927**	**.000**
Model fitting information								
Hosmer & Lemeshow chi-square test (significance)	6.043(0.642)							
Nagelkerke R^2	0.640							
Omnibus Tests of Model Coefficients	131.121(0.005)							
Estimate with correct classification	**86.3**							

Italic values indicate the significance of p-value

HF = Health Facility

Ref = Reference Group = 1.00

AOR = Adjusted odds Ratios

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Similarly, health-seeking behaviour among civil servants in Nigeria was found to be 63.1% (Latunji & Akinyemi, 2018).

The results of this study indicate that informal sector workers without active NHIS were 85.4% times less likely to adopt good health-seeking behaviour compared to their counterparts with active NHIS enrolment. This result mirrors those of earlier studies that have examined health-seeking behaviour. Latunji and Akinyemi (2018) found that workers enrolled on the NHIS were more likely to practice good health-seeking behaviour. The result also reflects Zeng et al. (2020) where those with insurance had the propensity to utilize community health centres. Majority of informal sector workers (87.9%) who practiced bad health-seeking behaviour did not have NHIS. This is suggestive of the link between income, burdening health expenditure and affordability resulting in bad health-seeking when suffering from occupational-related diseases. A study by Asampong et al. (2015) found that the perception of a high cost of health coverage was one of the key obstacles to electronic waste workers accessing formal healthcare. Shaikh and Hatcher (2005) revealed that cost of healthcare expenditure is a barrier to good health-seeking behaviour since households out-of-pocket expenditure on health in Pakistan make approximately 80% of the total amount spent on healthcare. Enrolment on the NHIS provides long-term economic benefits relative to out-of-pocket cost on healthcare.

The masters had the propensity of practicing good health-seeking behaviour compared to employees. A possible explanation of this result may be that the masters were older than employees, had practiced for more years and they were aware of the hazardous nature of their work and some implication on their health. The masters, due to their work experience and old age, were more likely to practice good health-seeking behaviour because they might have suffered from chronic diseases such as hypertension and asthma which needs constant health care from experts who are in hospitals and clinics. The masters also earned more monthly income compared to employees and apprentices and therefore could afford to register and renew their NHIS status and afford formal healthcare. This would enable masters to practice good health-seeking behaviour by accessing formal healthcare using their NHIS card and even pay for additional medical bills when the need arises. It is therefore not surprising that they practiced good health-seeking behaviour than the employees.

Informal sector workers who spent more than an hour to access healthcare were associated with greater odds of adopting good health-seeking behaviour compared to their counterparts who spent less than an hour. Even though informal sector workers with good health-seeking behaviour accessed health facilities closer to them, they had to wait for more than one hour (81.7%) to access healthcare. They usually would have to join long queues at clinics or hospitals before they are seen by a doctor. This result is in accord with recent studies on long waiting time and formal healthcare utilization (Sokoloff et al., 2020; Westaway et al., 2003; Wu et al., 2021). Akazili et al. (2018) evinced that informal sector workers in Ghana spent long waiting time to access healthcare. Egbujie et al. (2018) indicated that one of patients' source of dissatisfaction was long waiting times at a healthcare facility. However, compared to those who had bad health-seeking behaviour, majority (80.1%) spent short waiting times to access healthcare since chemical or pharmaceutical shops, self-treatment and other informal health utilization are not characterized by long queues. In line with this finding, Kistan et al. (2020) revealed that long waiting time periods was the greatest barrier to accessing healthcare among informal waste recycling workers in South Africa. This suggests that informal workers consider timelines of treatment critical since a delay in the provision of care has a negative implication on the adoption of good health-seeking behaviour.

Furthermore, the study revealed that the number of dependents was an important factor in the health-seeking behaviour of informal sector workers. Several factors could explain for this observation. A possible explanation for this might be that informal sector workers with more than five dependents are more health conscious since they are bread winners of their households. Should they suffer from occupational diseases for longer periods and pass on, household members may

find it difficult to survive. Also, informal sector workers with more dependents could have registered on the NHIS to reduce the cost of healthcare expenditure and seek quality healthcare when suffering from an occupational disease.

5. Conclusion

The study employed the use of the determinate model to examine the socio-demographic and associated factors that influence health-seeking behaviour among workers in the informal sector in the Kumasi Metropolitan area of Ghana. The study found that majority of informal sector workers practiced bad health-seeking behaviour. Respondents with five or more dependents were significantly more likely to practice good health seeking behaviour compared to those with low dependents. Participants who had not enrolled in the NHIS were also less probable to seek formal healthcare compared to those who have enrolled in the scheme. The study established that participants who were employees were less likely to seek for formal healthcare as compared to masters. The study also revealed that respondents who waited at the health facility for more than 1 hour had greater odds of practicing good health-seeking behaviour. These findings are important for the formulation of national policies which enhances good health-seeking behaviour and ensures appropriate formal healthcare utilization among informal sector workers who form the majority of the labour force in Ghana. Formal healthcare utilization among informal sector workers would ensure early detection and treatment of diseases before complications arises.

The study recommends that informal sector workers should be encouraged by National Insurance Authority to register for NHIS or contribute towards any health insurance scheme which they feel comfortable and have confidence in. This is to ensure that they have a fallback mechanism when they encounter risks and shocks as a result of work-related diseases to enable them access formal healthcare when the need arises. Moreover, health personnel at health facilities should also ensure that they provide good and safer medical care at their facilities within the shortest possible time to reduce long waiting time.

6. Limitation of the study

Since the target group for this research were fish processors and welders in two sub-metropolitan areas in Kumasi, it is questionable if the results could be generalised to other sectors of the informal sector. Also, the use of cross-sectional survey design only provided a snapshot of informal sector workers and their health-seeking behaviour when they suffered from occupational diseases as a result causal relationship was not established. Furthermore, the measurement of health-seeking behaviour was based on self-reported illness and treatment action, and not directly observed as the illness process unfolds. Based on these limitation, future studies should cover more informal sector activities and study settings to ensure generalization of findings.

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Author details
Dina Adei[1]
E-mail: ladydeeust@yahoo.com
Anthony Acquah Mensah[1]
E-mail: menacqant1@gmail.com
ORCID ID: http://orcid.org/0000-0003-2374-7388
Williams Agyemang-Duah[2]
E-mail: agyemangduahwilliams@yahoo.com
Lewis Aboagye-Gyasi[1]
E-mail: aboagyegyasi16@gmail.com

[1] Department of Planning, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
[2] Department of Geography and Planning, Queen's University, Kingston, Ontario, Canada.

Data availability statement
The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Disclosure statement
No potential conflict of interest was reported by the author(s).

Author contribution
DA conceived the study, DA and AAM contributed to the design, WA-D and LA-G collected the data, DA and AAM analyzed the data and drafted the manuscript, WA-D and LA-G reviewed the draft. DA, WA-D, LA-G and AAM addressed the review comments. All authors read and approved the final manuscript.

Ethics approval and consent to participate
The Department of Planning, Kwame Nkrumah University of Science and Technology gave the approval to conduct the study. Informed written and verbal consents were obtained from study participants before data were collected. Respondents were also assured of strict confidentiality and anonymity of the data they provided.

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