

Factors Influencing the Health-Seeking Behaviour of People With Influenza-Like Symptoms in the Ayawaso East Municipality

Eli Agbo

eeagbo12@gmail.com

Ghana Armed Forces

Kwasi Frimpong

Ghana Institute of Management and Public Administration

Mavis Pearl Kwabla

University of Health and Allied Sciences

Research Article

Keywords: Influenza-like illness, health-seeking behaviour, demographic factors, psychological factors, healthcare accessibility, mixed-methods design

Posted Date: October 29th, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-10852946/v1>

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Additional Declarations: No competing interests reported.

Abstract

Background

Globally, influenza-like illnesses (ILIs) are a major cause of morbidity, mortality, and economic loss. Defined by symptoms including fever, cough, and fatigue, ILIs lead to an estimated 3–5 million severe cases and as many as 650,000 deaths annually. The greatest impact falls on populations in low- and middle-income countries (LMICs). The study examines factors influencing the health-seeking behaviour of individuals with influenza-like illness in Ayawaso East Municipality.

Methods

The study employed an embedded mixed-methods design, which combines quantitative and qualitative approaches. Using purposive sampling, a minimum target sample size of 266 was estimated. Data were collected through structured questionnaires with both closed and open-ended items. Quantitative data were analysed with SPSS using descriptive statistics and regression, while qualitative data were manually analysed using thematic analysis.

Results

Of the 266 individuals with ILIs who participated in the study, the modal age group was 31–40 (90; 33.8%). There were 144 (54.1%) males, 64 (24.1%) were health professionals, and 88 (33.1%) had tertiary level education. Age ($B = 0.068$, $p = 0.000$), gender ($B = 1.405$, $p = 0.000$), and education ($B = 0.928$, $p = 0.000$) were found as significant predictors of good health-seeking behaviour. Psychological factors, such as perceived severity, risk perception, and health beliefs, encouraged expeditious healthcare seeking, while fear, anxiety, and overconfidence in self-care served as deterrents. System-level issues, such as affordability, distance, and convenience of access, emerged as significant determinants, with cost and efficacy directly influencing the delivery of timely care.

Conclusion

Health-seeking behaviour for influenza-like symptoms is shaped by a complex interplay of demographic, psychological, and healthcare system factors. While demographic characteristics significantly influence timely care-seeking, accessibility and systemic issues, such as distance, affordability, service delays, and inefficiencies often discourage it, whereas affordability and ease of access promote utilisation. Although individuals may recognize the importance of professional care, actual behaviour is frequently driven by structural and contextual barriers. Therefore, improving health-seeking behaviour requires not only modifying personal beliefs and practices but also addressing systemic obstacles including cost, distance, and inefficiencies, while acknowledging the persistent role of cultural practices.

INTRODUCTION

Influenza-like illnesses (ILIs) are a worldwide health phenomenon, leading to severe morbidity, mortality, and economic costs. Fever, cough, and fatigue being the defining characteristics, ILIs result in a projected 3–5 million severe cases of illness and as many as 650,000 deaths annually on a global basis, with groups at risk being predominantly from the low- and middle-income economies (LMICs)¹. The public health relevance of ILIs extends beyond direct health implications, as delayed or suboptimal care-seeking fuels transmission and overwhelms health systems². Regardless of increased healthcare access, the literature points out persistence in delays between medical consultation visits, and a majority result in self-medication, conventional remedies, or no treatment altogether, particularly for resource-limited environments³.

In Sub-Saharan Africa, ILIs remain a principal reason for outpatient consultations, yet healthcare-seeking behaviour is shaped by complex socio-economic and cultural determinants. In Ghana, ILIs account for approximately 20% of all outpatient cases reported annually, but nearly 35% of patients initially prefer self-medication due to cost considerations or because they believe the diseases are not serious⁴. In response to emerging threats such as the highly pathogenic avian influenza A(H5N1) outbreak in 2007, Ghana established a national sentinel surveillance system for influenza-like illness (ILI), coordinated by the Ghana Health Service (GHS) and the Noguchi Memorial Institute for Medical Research⁵. In addition, the use of traditional medicine, often driven by trust in local healers and fears of discrimination within hospital settings, can contribute to delays in seeking biomedical care⁶. These patterns reflect broader systemic challenges, including inequitable access to healthcare and limitations in public health service delivery, which persist despite the implementation of the Ghanaian National Health Insurance Scheme (NHIS)^{7,8}.

Structural determinants like long waiting times, perceived inadequate service quality, and transport costs were found to discourage clinic attendance⁹. Individual, socio-cultural, economic, and structural determinants are all intricate interplays that affect health-seeking behaviour. Practices like reliance on traditional medicine and hospital visits, stigmatisation also deter the use of formal care⁶. Economically, issues of uninsured and out-of-pocket expenses remain major deterrents despite Ghana's National Health Insurance Scheme (NHIS) because of gaps in coverage¹⁰. Another study also identified structural determinants such as long waiting times and perceived poor quality of care to discourage access to healthcare¹¹.

In low- and middle-income societies, the cost of healthcare services, transport fares, and lost-time costs often deter patients from accessing hospitals early for needed medical treatment^{12,13}. Onwujekwe et al.¹⁴ found that individuals from poor families were more likely to delay access to health care or resort to alternative medication due to cost. Apart from that, cultural beliefs and perceptions related to the origin of the disease also affect health-seeking behaviour among Ghanaian communities. For cases of influenza-like illness, some individuals first approach herbal or religious cure, over normal medical

treatment, thus pre-empting quality intervention. This is consistent with a study by Bamidele et al.¹⁵, who observed that religious and cultural beliefs significantly determine healthcare consumption behaviours in West Africa.

Also, health system determinants such as access to healthcare facilities, perceived quality of care, and healthcare workers' attitudes influence the willingness of individuals to access medical care. Studies indicate that poor doctor-patient relationships, waiting times, and fear of misdiagnosis discourage individuals from visiting healthcare facilities¹⁶. In municipalities such as Ayawaso East, where healthcare is typically stretched, overcrowding and lack of health personnel in public health facilities may also deter others from seeking treatment for influenza-like illness. Understanding these determinants benefits policymakers, healthcare professionals, and public health workers in making decisions to increase the utilisation of healthcare services and control the spread of respiratory infections. Hence, this study aims to identify the factors that influence the health-seeking behaviour of people with Influenza-Like Symptoms in the Ayawaso East Municipality.

METHODS

Study setting

This study was conducted in the Ayawaso East Municipality of the Greater Accra Region. The municipality is divided into three sub-municipalities namely Nima East, Nima West and Kanda and has a total population of 53,004. The municipality has one referral facility, which is the 37 Military Hospital that serves clients from other districts. The municipality shares boundaries with Ayawaso North, Ayawaso Central, Ayawaso West, La Dadekotopon and Korle Klottey municipalities. It has a total of nine (9) health facilities, made up of both public, quasi, and private facilities. The nine facilities comprise 1 hospital, 2 polyclinics, and 6 private clinics. There are 17 functional urban community-based health planning and services (CHIPS) zones. The Nima polyclinic operates both outpatient and inpatient services, reproductive and child health services. The facility also provides maternity services as well as psychiatry.

Study design

Between January 8th and March 31st, 2025, we conducted a survey among individuals presenting with influenza-like illnesses to assess their health-seeking behaviour. The study employed an embedded mixed-methods design, which combines quantitative and qualitative approaches. The embedded design was considered appropriate given the multidimensional nature of the study objectives, which sought to examine demographic, psychological, behavioural, and health system-related factors influencing the utilization of healthcare services among individuals with influenza-like illnesses (ILIs). The primary outcome variable was health-seeking behaviour, categorized as good or poor.

Study population

The study population was adult citizens of the municipality who had suffered an influenza-like illness in the last 12 months.

Sampling and sample size estimation

The sampling approach that was adopted is purposive sampling, which is a non-probability sampling method because it allows the researcher to select individuals with specific qualities to be researched with deliberate intent. A sample size of 266 persons was calculated using the Cochrane formula. Individuals with ILIs residing in the three sub-municipalities of the Ayawaso municipality, namely, Nima East, Nima West and Kanda were included in the study. The participants included in this research were adult residents (18 years and above) of the Ayawaso East Municipality who had suffered influenza-like symptoms of cough, fever, sore throat, or aches in the body over the last twelve months. Data collectors identified individuals who met the inclusion criteria for interviews. The study focused on particular people who could remember their experiences and decisions on healthcare-seeking during the episode.

Data collection procedure

The frequency, trends, and relationships of key variables were measured by using a structured questionnaire to collect the quantitative data among participants. The questionnaire was designed in Kobocollect App and was either administered to participants by the researchers or sent to them to take the survey by themselves. Data collectors were deployed to the communities and the health facilities to identify individuals who met the inclusion criteria. Participants who were literate answered the questionnaire individually, while others were assisted by the data collectors to complete the questionnaire. Qualitative data collection involved the use of open-ended questions to increase the understanding of the personal experiences, beliefs, and perceptions of the participants towards their health-seeking behaviour. Such integration made it possible to contextualise any statistical findings, enhancing them with narrative knowledge that has shown deep-rooted motivations and obstacles. The research tool used, a semi-structured questionnaire, was designed in such a way that the multiple factors that affect health-seeking behaviour in individuals with influenza-like symptoms are examined systematically. The questionnaire was designed due to the non-existence of a direct questionnaire on the study objectives. The questionnaire has four major sections in line with the objectives of the research. Part one collects demographic data like age, sex, education levels, occupation, income, marital status, and place of residence to analyse the influence of socio-demographic factors in health-seeking behaviour. The second section is concerned with psychological elements, such as concern levels, anxiety, perceived severity of symptoms, and self-management confidence, as well as stigma fear, reflecting cognitive and emotional aspects of behaviour. The third part deals with the behavioural patterns through evaluation of what to do when symptoms are present, when care is sought, how often they self-medicate, and whether one uses traditional or cultural medication. The last part assesses accessibility and health care system variables, such as distance to health care facilities, affordability, easy accessibility, satisfaction with the quality of care, and confidence in caretakers, which can

enable/prevent access to timely health care usage. The questionnaire combines closed-ended and Likert-scale questions, as well as open-ended responses, which allowed the collection of detailed data.

Data Analysis

The structured questionnaires that had the quantitative data were coded and fed to the Statistical Package for the Social Sciences (SPSS) for the analysis. The demographic characteristics and key variables were summarised using descriptive statistics, including frequencies, percentages, means, and standard deviations. Inferential statistics was performed using regression to analyse relationships between variables, including demographic characteristics, psychological factors, behavioural dispositions, and access to health care, and their impact on health-seeking behaviour. In the qualitative part, the answers to the qualitative aspect were analysed using thematic analysis. This included the determination of recurrent patterns, categories, and themes that gave more insights into what the participants narrated, as well as their experiences. The qualitative results were also applied to support, explain, and contextualise the quantitative results, which led to a deeper and more valid study conclusion. Both data triangulation enabled the cross-check of the results, reinforced interpretation, and draw more subtle conclusions. By combining statistical and thematic analysis, it was able to capture not only measurable trends but also life experiences, giving a broad picture of the multidimensional nature of factors that influence the health-seeking behaviour in the area of study.

RESULTS

Demographic characteristics of the 266 respondents with influenza-like symptoms showed that the majority fell within the 31–40 years age group ($n = 90$, 33.8%), followed by those aged 18–30 years (76, 28.6%). Respondents aged 41–50 years accounted for 21.8% (58), while those above 50 years represented the smallest group (42, 15.8%). This indicates that the study population was relatively youthful, with a greater proportion concentrated in the economically active age groups.

Regarding gender, males constituted 54.1% (144) of the sample, while females accounted for 45.9% (122). In terms of marital status, 46.6% (124) were married, 38.3% (102) were single, 8.3% (22) were divorced, and 6.8% (18) were widowed.

With respect to educational attainment, 33.1% (88) had a university education, while 36.8% (98) had completed high school. A smaller proportion, 22.6% (60), had primary education, and 7.5% (20) had no formal education.

Respondents' occupational backgrounds were diverse. The largest group comprised health professionals (64, 24.1%), followed by self-employed/business individuals (54, 20.3%) and students/service workers (52, 19.5%). Other categories included education sector workers (28, 10.5%), government/civil servants (26, 9.8%), and military/security personnel (20, 7.5%). Smaller proportions were observed in engineering/technical fields (12, 4.5%) and banking/finance (10, 3.8%) (Table 4.1).

Table 4.1
Socio-demographic characteristics of respondents (N = 266)

Variable	Frequency (n)	Percentage (%)
Age (years)		
18–30	76	28.6
31–40	90	33.8
41–50	58	21.8
> 50	42	15.8
Gender		
Male	144	54.1
Female	122	45.9
Marital Status		
Single	102	38.3
Married	124	46.6
Divorced	22	8.3
Widowed	18	6.8
Educational Level		
No formal education	20	7.5
Primary education	60	22.6
High school	98	36.8
University	88	33.1
Occupation		
Health professionals	64	24.1
Self-employed/Business	54	20.3
Students/Service	52	19.5
Government/Civil service	26	9.8
Education sector	28	10.5
Military/Security	20	7.5
Engineering/Technical	12	4.5

Variable	Frequency (n)	Percentage (%)
Age (years)		
Banking/Finance	10	3.8

Table 4.2
Multivariable regression results of demographic characteristics associated with health-seeking behaviour

Dependent Variable: Health-Seeking Behaviour				
Variable	Coefficient	Standard Error	T Statistics	p-value
Age	0.068	0.016	4.310	0.000
Gender	1.405	0.371	3.785	0.000
Marital Status	-0.505	0.383	-1.318	0.190
Education Level	0.928	0.166	5.589	0.000
Occupation	0.572	0.138	4.150	0.000
Household Income	0.868	0.235	3.688	0.000
R ²	0.418			
Adjusted R ²	0.387			
F statistics (p-value)	p < 0.001			

Source: Field Data (2025)

Table 4.2 presents the multivariable regression analysis of socio-demographic characteristics associated with health-seeking behaviour. Education level is a substantial and favourable predictor of health-seeking behaviour ($B = 0.928$, $p = 0.000$). Similarly, health-seeking behaviour is strongly influenced by profession ($B = 0.572$, $p = 0.000$). This suggests that a person's professional experience or kind of work affects how much treatment they seek. Another important factor was household income ($B = 0.868$, $p = 0.000$). This suggests that compared to those with lower earnings, those with greater incomes are more likely to seek healthcare services. The model as a whole demonstrates strong explanatory power, with an R^2 value of 0.418 and an adjusted R^2 of 0.387, suggesting that about 39% of the variation in health-seeking behaviour is explained by the demographic characteristics included in the analysis. The chosen demographic factors together have a considerable influence on health-seeking behaviour, as shown by the statistical significance of the entire model (F statistic, $p < 0.001$).

The psychological factors that influence the health-seeking behaviour of people with influenza-like symptoms

The findings show that health-seeking activity is positively and statistically significantly impacted by perceived severity ($B = 0.482, p = 0.000$). This suggests that people are more inclined to seek professional medical assistance when they understand the severity of influenza-like symptoms, such as a high temperature, a persistent cough, or acute exhaustion.

Additionally, the results show that health-seeking activity is strongly predicted by health beliefs and perceptions ($B = 0.534, p = 0.000$). This suggests that whether or not individuals seek medical assistance is significantly influenced by their underlying presumptions and attitudes towards sickness and treatment.

There is also a strong and negative correlation between fear and anxiety and seeking medical attention ($B = -0.297, p = 0.010$). This implies that anxiety often serves as a deterrent rather than an incentive to seek treatment. During a period of increased knowledge about infectious illnesses, many people may avoid going to medical facilities because of concern about exorbitant expenses, incorrect diagnoses, or even the potential for stigmatisation for coughing.

Table 4.3
Multivariable Regression results of psychological factors on health-seeking behaviour

Dependent Variable: Health-Seeking Behaviour				
Variable	Coefficient	Standard Error	T Statistics	p-value
Perceived Severity	0.482	0.118	4.085	0.000
Health Beliefs & Perceptions	0.534	0.129	4.140	0.000
Fear and Anxiety	-0.297	0.113	-2.629	0.010
Risk Perception	0.441	0.121	3.645	0.000
Self-Efficacy	-0.366	0.135	-2.711	0.008
R ²	0.521			
Adjusted R ²	0.497			
F statistics (p-value)	p < 0.001			

Source: Field Data (2025)

The research also shows that health-seeking conduct is strongly and positively impacted by risk perception ($B = 0.441, p = 0.000$). This suggests that people are more likely to seek medical attention when they believe they are at a greater risk of getting influenza-like diseases or experiencing complications. However, there is a substantial and negative correlation between self-efficacy and health-seeking behaviour ($B = -0.366, p = 0.008$). This implies that people are less inclined to contact medical facilities when they are confident in their capacity to cope with influenza-like symptoms on their own.

The accessibility and healthcare system factors that influence the health-seeking behaviour of people with influenza-like symptoms

The findings show that variables related to accessibility and the healthcare system significantly influence how people with influenza-like symptoms seek medical attention. In terms of distance, the majority of respondents (51.9%) said that the closest medical institution was between 1 and 5 km, while 21.1% had to drive more than 5 km, and 27.1% resided less than 1 km away. This suggests that even if the majority of respondents have rather easy access to medical care, a sizeable fraction nevertheless encounter significant obstacles because of distance. People are often deterred from seeking treatment right away by long distances, particularly when symptoms seem moderate at first. People may decide to postpone treatment entirely or self-medicate in such circumstances. One respondent stated that

"For me, the clinic is far, and by the time I get there, I'm already tired and sometimes discouraged" (Interview, 2025).

This demonstrates how geographic limitations may directly lead to treatment delays, deteriorating health outcomes, and even compulsion to rely on alternative therapies like traditional medicine. The affordability of medical treatment was yet another important factor that had a big impact on conduct. A concerning 29.3% of respondents said that healthcare was expensive, and 13.5% said that it was extremely unaffordable, despite 44.4% of respondents finding it affordable and 12.8% seeing it as very affordable. These results imply that about 50% of the study group has financial obstacles that prevent them from getting prompt medical attention. Particularly in low-income families, the expense of consultations, medications, and laboratory testing is often mentioned as a reason for avoiding hospitals and clinics. According to one responder,

"I sometimes prefer to buy from the pharmacy instead of going to the hospital because the drugs are too expensive" (Interview, 2025).

Table 4.6

Accessibility & healthcare system factors influencing health-seeking behaviour of people with influenza-like symptoms

Variables	Categories	Frequency	Percentage
Distance to nearest healthcare facility	Less than 1 km	72	27.1
	1–5 km	138	51.9
	More than 5 km	56	21.1
Affordability of healthcare services	Very affordable	34	12.8
	Affordable	118	44.4
	Unaffordable	78	29.3
	Very unaffordable	36	13.5
Ease of accessing healthcare services	Very easy	46	17.3
	Easy	124	46.6
	Difficult	68	25.6
	Very difficult	28	10.5
Delayed seeking care due to cost, distance, or waiting time	Yes	174	65.4
	No	92	34.6

Source: Field Data (2025)

This viewpoint illustrates how cost issues not only deter people from seeking care but also lead them to choose alternatives that cannot ensure appropriate treatment, which has an impact on overall health outcomes. As a result, affordability becomes a powerful enabling factor in health behaviour, where those with lower incomes suffer disproportionately. Another important element mentioned was the ease of receiving healthcare services. 17.3% of respondents said accessing healthcare was very simple, while almost half (46.6%) said it was easy. Nonetheless, 10.5% said access was very tough, and 25.6% thought it was problematic. This uneven distribution shows that healthcare delivery systems are not always constant, with accessibility often changing based on staff availability, facility location, and service delivery efficiency. It's possible that respondents who had trouble accessing treatment were deterred from returning by crowded facilities, lengthy wait times, and bureaucratic red tape. One participant, emphasising this aggravation,

"Even when I get to the hospital, the long queues make me think twice about going back the next time" (Interview, 2025).

Systemic inefficiencies that erode patient confidence and discourage them from seeking professional treatment are reflected in this experience. As a result, people could use coping strategies, including putting off getting help, turning to drugs, or focusing on taking care of themselves. Lastly, the survey found that 65.4% of respondents reported delaying health care because of cost, distance, or waiting time, compared to only 34.6% who said they did not. This demonstrates clearly that structural obstacles continue to be a major hindrance, deterring prompt health intervention. Nearly two-thirds of the respondents put off getting treatment, which shows that systemic problems in the healthcare system are more important than individual willingness to ask for assistance. In addition to making diseases worse, delays in treatment raise the possibility of complications and lengthen recovery times.

"Sometimes I want to go, but because of money and the time wasted at the hospital, I just stay home and hope to feel better" (Interview, 2025).

These incidents highlight how individuals are deterred from seeking treatment right away by a combination of financial limitations, logistical difficulties, and ineffective service delivery. This proves that accessibility and aspects of the healthcare system are not only incidental elements; rather, they are key factors that determine whether or not people use healthcare services efficiently and promptly.

Table 4.7
Multivariable regression results of accessibility and healthcare system factors on health-seeking behaviour

Dependent Variable: Health-Seeking Behaviour				
Variable	Coefficient	Standard Error	t. statistics	p-value
Distance to healthcare facility	-0.214	0.072	-2.972	0.003
Affordability of healthcare services	0.328	0.085	3.859	0.000
Ease of accessing healthcare	0.276	0.090	3.067	0.002
Delay in seeking care	-0.071	0.068	-1.044	0.297
R ²	0.387			
Adjusted R ²	0.372			
F statistics (p-value)	p < 0.001			

Source: Field Data (2025)

The findings indicate that the health-seeking behaviour is significantly impaired by the distance to the healthcare facility (B = -0.214, p = 0.003). This suggests that individuals are less inclined to pursue expeditious and appropriate healthcare as the distance to the nearest facility increases. Many individuals who reside in remote areas are discouraged from seeking medical attention when influenza-like symptoms manifest due to the additional costs, time constraints, and transportation obstacles that they encounter. One respondent elaborated,

"I am already exhausted by the time I arrive at the hospital, and occasionally, I decide not to go at all" (Interview, 2025).

This illustrates the direct impact of geographical barriers on the reduction of healthcare utilisation. The affordability of healthcare services was discovered to have a highly significant and positive correlation with health-seeking behaviour ($B = 0.328$, $p = 0.000$). This implies that individuals are more inclined to seek care promptly and consistently when healthcare services are perceived as affordable. The cost of consultations, pharmaceuticals, and laboratory services continues to be a significant factor in determining whether individuals choose to seek formal healthcare services or pursue self-medication and home remedies. According to the respondent,

"I am amenable to visiting the clinic when the fees are reasonable; however, I refrain from doing so when they are excessive" (Interview, 2025).

This underscores the fact that affordability is not merely a secondary concern, but rather a significant enabling factor in the formation of healthcare decisions. Similarly, the convenience of accessing healthcare had a positive and significant impact on health-seeking behaviour ($B = 0.276$, $p = 0.002$). This suggests that individuals are more likely to utilise services when they are perceived as easily accessible, whether through the availability of staff, reduced waiting periods, or streamlined processes. Even when individuals acknowledge the severity of their symptoms, they are frequently discouraged from seeking punctual assistance due to the challenges associated with navigating lengthy queues or inefficient systems.

DISCUSSION

The demographic characteristics that influence the health-seeking behaviour of people with influenza-like symptoms

This study sought to examine factors influencing health-seeking behaviour among individuals with influenza-like illness in a municipality in Ghana. The findings indicate that the health-seeking behaviour of individuals with influenza-like symptoms is significantly influenced by demographic characteristics. With the exception of marital status, age, gender, education level, occupation, and household income have all been found to have substantial influence on health seeking behaviour among individuals with influenza-like illness. These results are consistent with the Health Belief Model (HBM), which proposes that the health actions of individuals are influenced by their perceptions of susceptibility, severity, benefits, and barriers, and that these perceptions are influenced by demographic factors. For instance, the notion that older and more educated individuals are more inclined to recognise the severity of symptoms and respond promptly is correlated with the positive influence of age and education¹⁷. Similarly, the gender effect is consistent with HBM, as women are frequently observed to be more health-conscious and responsive as a result of their caregiving responsibilities and reproductive health experiences. The HBM is also consistent with the impact of household income, which demonstrates how

financial resources alleviate obstacles to accessing care¹⁸. Conversely, the absence of significance for marital status implies that the perception and response to illness of individuals are not necessarily influenced by their marital status, which conflicts with research that frequently emphasises the influence of conjugal relationships on healthcare decisions.

Additionally, these results are consistent with existing research that has investigated the impact of demographics on healthcare-seeking behaviour. Frimpong et al.³ and Droney⁸ have demonstrated that education enhances health literacy and enables individuals to more accurately interpret symptoms, resulting in more timely and appropriate health responses. This study's discovery that education has a substantial impact on health-seeking behaviour is consistent with these observations and underscores the importance of knowledge in navigating healthcare systems. Similarly, Mazhar et al.¹⁹ noted that individuals in professional or formal employment were more likely to utilise healthcare services due to structured schedules and employer-linked health insurance. The positive relationship between occupation and health-seeking behaviour is consistent with these findings. The impact of income is also consistent with the findings of Treanor²⁰, who emphasised that financial capacity enables individuals to surmount obstacles such as transportation and medical expenses. Consequently, the current investigation not only confirms but also expands upon existing knowledge by demonstrating that demographic factors collectively account for significant disparities in health-seeking behaviour.

Additionally, these results are in dialogue with more extensive discussions in the health-seeking literature that underscore structural disparities. Amu et al.¹¹ discovered that income disparities continue to be a significant factor in determining whether individuals seek treatment promptly or wait until their symptoms worsen. This is in significant agreement with the present study's finding that affluent respondents were more likely to seek professional care. In contrast, Arooj¹⁸ previously observed that marital companions frequently influenced decisions to seek care, particularly among males. Consequently, the insignificant impact of marital status in this study is inconsistent with their findings. This divergence may indicate a shifting social dynamic in urban Ghana, where individual decision-making is increasingly taking precedence over household-based healthcare decisions. Overall, the study's results substantiate the notion that demographic characteristics, particularly age, gender, education, occupation, and income, are consistent predictors of health-seeking behaviour. Consequently, the Health Belief Model's emphasis on the significance of background factors in shaping individual health actions is in agreement.

The psychological factors that influence the health-seeking behaviour of people with influenza-like symptoms

The results of this study indicate that the health-seeking behaviour of individuals with influenza-like symptoms is significantly influenced by psychological factors, including perceived severity, risk perception, health beliefs, fear and anxiety, and self-efficacy. These results are in strong agreement with the HBM, which proposes that perceived severity and perceived susceptibility are the primary motivators for adopting preventive or curative health actions⁶. Individuals who perceived themselves to be at risk or

believed that their symptoms were severe were more likely to seek medical attention in this study, which is directly correlated with the central premise of the HBM. The study also underscores the intricacy of psychological influences, as fear and anxiety discouraged health-seeking, which is in contrast to the HBM's assumption that fear can occasionally serve as a motivator⁶. Rather, these results demonstrate that anxiety can result in avoidance when individuals have a low level of confidence in healthcare systems or anticipate negative experiences. Similarly, self-efficacy, which the HBM typically correlates with positive health behaviour, had a detrimental effect in this context. Individuals who were confident in their capacity to self-manage symptoms opted out of formal care. Although the HBM offers a robust theoretical framework, these nuanced results indicate that its constructs are influenced by contextual factors, including trust in healthcare systems and cultural practices, which affect their operationalisation in practice.

These outcomes have been supported and challenged by other empirical investigations, which have reported findings. For example, this study's findings are consistent with research conducted in sub-Saharan Africa and Asia, which has demonstrated that individuals who perceive influenza-like illnesses as severe are more inclined to seek treatment in formal facilities^{11,8,6}. Similarly, Mohammed et al.²¹ have previously emphasised the importance of risk perception. They observed that, during influenza outbreaks, heightened awareness of susceptibility resulted in increased hospital visits and greater adherence to public health directives. Nevertheless, the negative correlation between self-efficacy and health-seeking behaviour has also been documented in situations where individuals who possess a high level of self-assurance in the efficacy of home-based remedies postpone formal treatment²². This is consistent with the results of the current study, which demonstrate that self-reliance can occasionally impede the pursuit of appropriate healthcare, particularly in societies where self-medication or herbal remedies are readily accessible. The results of Saah et al.⁹, who discovered that stigma and fear of high costs discouraged healthcare utilisation during influenza outbreaks in Hong Kong, also mirror the role of fear and anxiety as deterrents. The present findings are not only consistent with theoretical expectations but also align with existing empirical evidence from a variety of contexts, as demonstrated by these comparisons.

Accessibility and healthcare system factors that influence the health-seeking behaviour of people with influenza-like symptoms

The results of this study indicate that the health-seeking behaviour of individuals with influenza-like symptoms is substantially influenced by healthcare system factors and accessibility. Individuals who resided at a greater distance from health facilities were less inclined to seek immediate medical assistance, which had a detrimental impact. This discovery is consistent with the HBM, which contends that perceived obstacles can restrict health action¹⁷. Even when the perceived severity is high, geographic distance serves as a structural barrier that discourages the timely utilisation of healthcare. Conversely, the HBM's concept of perceived benefits surpassing barriers is corroborated by the fact that

affordability and convenience of access were positively correlated with health-seeking behaviour. Individuals are more inclined to pursue formal care when services are affordably priced and easily accessible¹⁸. It is interesting that, although a significant number of respondents reported postponing treatment due to cost, distance, or waiting time, the delays were not statistically significant once affordability and convenience were taken into account. This implies that structural enablers, such as enhanced access and reduced cost, can counteract the adverse effects of delay, thereby underscoring the significance of systemic interventions in the promotion of expedient healthcare-seeking behaviour.

These findings are substantiated by prior research that emphasises the critical importance of accessibility in the pursuit of health. For example, Dawkins et al.²³ discovered in Nigeria that the distance to health facilities discouraged individuals from seeking care promptly, frequently leading them to self-medication or traditional remedies. In Ghana and Kenya, studies indicated that affordability significantly influenced healthcare decisions. Low-income households frequently postpone or forgo care due to the high costs of consultation and drugs²². These results are in direct agreement with the current investigation, in which financial constraints were a significant impediment to timely care. In contrast, Dsouza et al.²⁴ found that accessibility in the United Kingdom had a less significant impact. This was because universal healthcare coverage ensured affordability and proximity, and health-seeking behaviour was instead influenced by individual beliefs and risk perceptions. This discrepancy implies that the HBM's framework applies to a variety of contexts; however, the significance of perceived obstacles such as affordability and distance is contingent upon structural and systemic factors.

This study also identified the issue of accessibility, particularly bureaucratic inefficiencies and extended wait periods, as a substantial determinant. Respondents expressed their dissatisfaction with the lengthy queues and delays, which discouraged them from making future visits to healthcare facilities. This discovery is consistent with the HBM's emphasis on perceived barriers, as the healthcare system's inefficiencies diminish the probability of individuals taking action, even when they perceive their illness as grievous. In Asia, studies conducted by Droney⁸ similarly discovered that extended waiting times during influenza outbreaks discouraged individuals from obtaining treatment, leading them to pharmacies for more expeditious alternatives. Mohsin et al.¹⁷ found that systemic inefficiencies in sub-Saharan Africa, such as staff deficits and poor service quality, eroded trust in healthcare facilities, thereby reinforcing avoidance behaviours. These results are consistent with the current investigation, which underscores the extent to which systemic obstacles undermine health-seeking behaviour, despite the fact that individuals are aware of the risk.

CONCLUSION

The study's conclusion emphasises that the health-seeking behaviour for influenza-like symptoms is influenced by a multifaceted interplay of demographic, psychological and healthcare system factors. The likelihood of individuals seeking timely medical attention was significantly influenced by demographic characteristics. Accessibility and systemic issues also played a critical role, as distance, affordability,

service delays, and inefficiencies discouraged care, while affordability and ease of access promoted utilisation. Collectively, these discoveries emphasise that, despite the fact that individuals may acknowledge the significance of seeking professional assistance, the actual behaviour is frequently influenced by structural and contextual problems. The study recommends the removal of systemic barriers, such as cost, distance, and inefficiencies, in addition to the modification of personal beliefs and practices to enhance health-seeking behaviour.

Abbreviations

ILIs
Influenza-like illnesses
LMICs
Low-and middle-income economies
H5N1
Highly pathogenic avian influenza A
GHS
Ghana Health Service
NHIS
National Health Insurance Scheme

Declarations

a. Ethics approval and consent to participate

Ethical approval was submitted to and obtained from the Ghana Institute of Management and Public Administration Ethical Committee with reference number SPSPG/MPH/ 225060760. All study participants were above the age of 18 years. All experiments were performed in accordance with relevant guidelines and regulations, including the Declaration of Helsinki. Informed consent was obtained from all participants prior to their involvement in the surveys and interviews.

b. Consent for publication

Not applicable.

c. Data availability

The dataset that supports the findings of this article is available on reasonable request. All requests should be channelled to Eli Agbo at eeagbo12@gmail.com

d. Competing interests.

All authors declare that they do not have any competing interests.

e. Funding

The project is self-funded by the authors.

f. Authors contribution

Eli Agbo conceived and designed the study as well as contributed to the analysis and prepared the manuscript. Mavis Pearl Kwablah and Kwasi Frimpong contributed to the study design, analysis and interpretation of the data. All authors contributed to reviewing, editing, and approved the final version of the manuscript to be published.

g. Acknowledgement

The authors would like to thank the Municipal Director of Health Services of the Ayawaso East Municipality and his team for their support for the study.

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