



Factors Affecting Health Seeking Behavior: A Cross-Sectional Study in Khulna, Bangladesh

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Abstract: Health-Seeking Behavior (HSB) is a vital factor influencing an individual's health outcomes and overall well-being. This study aimed to evaluate the prevalence of HSB attitudes among adults in Khulna, Bangladesh, and to identify associated factors, emphasizing the increasing public health challenge these conditions represent for the adult population both locally and worldwide. A quantitative cross-sectional survey was carried out in Ward No. 24 of KCC and Batiaghata Upazila in Khulna, involving 350 individuals aged over 18 years, selected via convenience sampling. Health-seeking behavior (HSB) served as the dependent variable, evaluated through the Health Seeking Behavior Scale (HSB-12, with a criterion score above 18). One-way ANOVA and chi-square tests were utilized to examine differences in means across subgroups, whereas binary logistic regression was employed to identify factors associated with elevated HSB. The study identified a prevalence of 42.0% for health-seeking behavior (HSB). HSB was significantly correlated with variables such as gender, age, educational attainment, economic dependence, income level, number of children, engagement in physical activity, surgical history, prevalence of any mental health condition, and vaccination status, thereby emphasizing the key factors influencing adults' physical and mental well-being in the Khulna region. The study emphasizes the critical factors associated with health-seeking behaviors among adults, underscoring the importance of targeted interventions by healthcare professionals and caregivers to enhance well-being and deliver vital support during this vulnerable stage of life.

Keywords: Health Seeking Behavior; Health Seeking Behavior Scale; Health Care Access; Individuals; Public Health

1 Introduction

Health-seeking behavior is a pivotal factor influencing an individual's health results and general well-being. Health care seeking behavior (HSB) refers to the actions made by individuals who perceive themselves as unwell, in comparison to others, with the aim of obtaining a suitable remedy or solution [1]. Additional pertinent terminology utilized by researchers in the literature encompasses pain behavior, health behavior, sick-role behavior, and care-seeking behavior [2–4]. Physical, economic, cultural, and political circumstances are regarded as determinants of health habits [5]. Additional factors encompass low socioeconomic status, limited physical accessibility, cultural attitudes and beliefs, low maternal literacy rates, and larger family sizes [6]. Research indicates that individuals' financial circumstances, educational attainment, awareness, and access to healthcare facilities directly influence their decisions to pursue medical care and services [7]. However, cultural traditions and beliefs were identified as the most prevalent factors influencing health-seeking behavior in developing countries [6]. Numerous investigations have been conducted across diverse cultural contexts worldwide [4,8–10] including some noticeable work in South Asia [11–14].

Investigations on health-seeking behavior (HSB) in low- and middle-income countries (LMICs) indicate that multiple factors affect the HSB of the populace, with specific segments of the community exhibiting a greater propensity for utilizing suitable HSB. Inappropriate HSB and its effects have been identified as significant across several demographic groups [15]. In Pakistan, households with average incomes below the minimum income threshold were less likely to seek formal medical care compared to households with incomes above the minimum benchmark. Research on HSB in LMICs demonstrates that various factors influence the HSB of the population, with certain segments exhibiting a greater propensity to adopt appropriate HSB than others. Inappropriate HSB and its related consequences have been recognized as significant across diverse population groups [15]. A further study conducted on the tribal population in CHT indicated that tribal communities may have different health requirements and priorities compared to the predominant Bengali population, and traditional healers continue to be highly regarded among the tribal communities in Bangladesh [16]. Comprehending the factors that influence these behaviors is crucial for developing effective health interventions and policies, particularly in resource-limited settings such as Khulna, Bangladesh. By identifying and analyzing these obstacles to health service utilization, the research aims to ensure the implementation of appropriate targeted healthcare interventions that address cultural barriers, accessibility issues, and affordability. The study's findings also established baseline data for future research and informed the development of health promotion strategies, ensuring proper service utilization and addressing particular community needs, including maternal and adolescent health initiatives.

2 Methods

2.1 Study Design, Period and Settings

The study used a cross-sectional quantitative survey conducted from January 5 to March 20, 2025, among adult permanent residents of Ward No. 24 in Khulna City Corporation and Batiaghata Upazila, Khulna Division, Bangladesh.

2.2 Population and sampling

The target population of the survey consisted of adult individuals in Khulna Division, Bangladesh, who were aged between 18-65 years. To achieve the objectives of the research, a sample of individuals was selected from Ward No. 24 of Khulna City Corporation and Jalma Union in Batiaghata Upazila, Khulna Division, Bangladesh. These locations were intentionally selected to collect representative samples of the target audience. We exclusively recruited adult individuals over the age of 18 who possess a national ID card and are officially registered by the government as permanent residents within these residential areas during the data collection period. The total population of the research area was 119,326 individuals. Specifically, Ward No. 24 of Khulna City Corporation has a total population of 46,345, according to the Ward Counselor of Ward No. 24, KCC. Additionally, there are 72,981 individuals residing in Jalma Union within Batiaghata Upazila, according to data provided by the Union Parishad office of Jalma Union. The majority of responses were gathered from Hogladanga and Chokrakhali, owing to their higher population densities.

Due to practical considerations and limited resources, a sample size of 360 respondents was established for the study. This sample size was determined utilizing Yamane's formula [17] with a 95% confidence level and a precision level of 0.05, which is commonly applied to determine sample sizes in social research when the total population is known.

$$n = \frac{N}{1+N[e]^2} \quad [1]$$

Here,

N = Total Population

n = Sample size

e = Confidence Level

$$\begin{aligned}n &= \frac{1,19,326}{1+1,19,326(0.05)^2} \\ &= 359.60 \\ &= 360\end{aligned}$$

Among these 360 registered permanent residents, we endeavored to contact all individuals; however, data were ultimately collected from 350 participants, as these individuals expressed interest, were available, and consented to participate. In this context, convenience sampling was utilized, as this method often entails selecting participants based on their proximity to a particular location, such as Ward No. 24 of Khulna City Corporation and Jalma Union under Batighata Upazila

2.3 Inclusion criteria

Individuals aged 18 years or older who possessed a national ID card, resided permanently in an assisted living facility at the time of the study, and provided their informed consent to participate were the inclusion criteria for the study.

2.4 Exclusion criteria

Participants under 18 years of age and over 65 years old, non-permanent residents of the selected area, individuals lacking NID, and those unwilling to participate were excluded from this study.

2.5 Data collection tools and techniques

The initial researcher performed an in-person interview utilizing a pre-tested structured questionnaire to collect data on participant characteristics in order to identify potential factors associated with HSB. Participants were required to provide written informed consent prior to their participation. To achieve the specified sample size, data were collected from eligible individuals residing in the selected assisted living facilities during the data collection period. To collect pertinent data, the researcher employed a three-section questionnaire. The initial segment gathered demographic information, while the subsequent section collected data regarding health and medical history. The third section of the questionnaire included the Health Seeking Behavior Scale (HSB-12).

2.6 Outcome measure

HSB served as the dependent variable in this investigation. The Recognized Health Seeking Behavior Scale (HSB-12) was employed to assess attitudes toward health-seeking behavior among adult individuals. The objective of the twelve-item standardized HSB-12 questionnaire is to evaluate the occurrence and severity of awareness symptoms that the

respondent has previously experienced prior to the interview. Based on the severity of symptoms, the HSB items are scored across four response categories: 0, 1, 2, and 3. The total HSB score ranges from 0 to 36, with higher scores indicating a greater presence of health-seeking behavior attitudes. The scores on all items are summed to produce a total score, which can range from 0 to 18, indicating no prevalence of HSB, or from 19 to 36, indicating the presence of HSB. In this study, an HSB score greater than 18 was used as the cutoff point to classify health-seeking behavior.

2.7 Independent variables

The independent variables were chosen based on the literature [18], [19], [20] and used to attain the objectives of the study.

Table 1. Independent variable

	Name of the variables	Category
Demographic Variables	Sex	1.Male
		2.Female
	Age	1.Below 50
		2.50& above
	Level of education	1.Below secondary
		2.Secondary & above
	Economic dependence	1.Self-dependent
		2.Dependent on others
	Monthly household income	1.Below 50,000 BDT
		2.50,000 BDT & above
Have children	1.None	
	2.Have	
Living status	1.Homeowner	
	2.Others	
Religious activities	1.Often	
	2.Regular	
Physical exercise	1.Never	
	2.Regular	
Health & Medical History Variables	Chronic illness	1.No
		2.Yes
	History of surgeries	1.No
		2.Yes
	Any mental illness	1.No
		2.Yes
	Vaccination status	1.No
		2.Yes
	Medication status	1.No
		2.Yes

2.8 Conceptual Framework

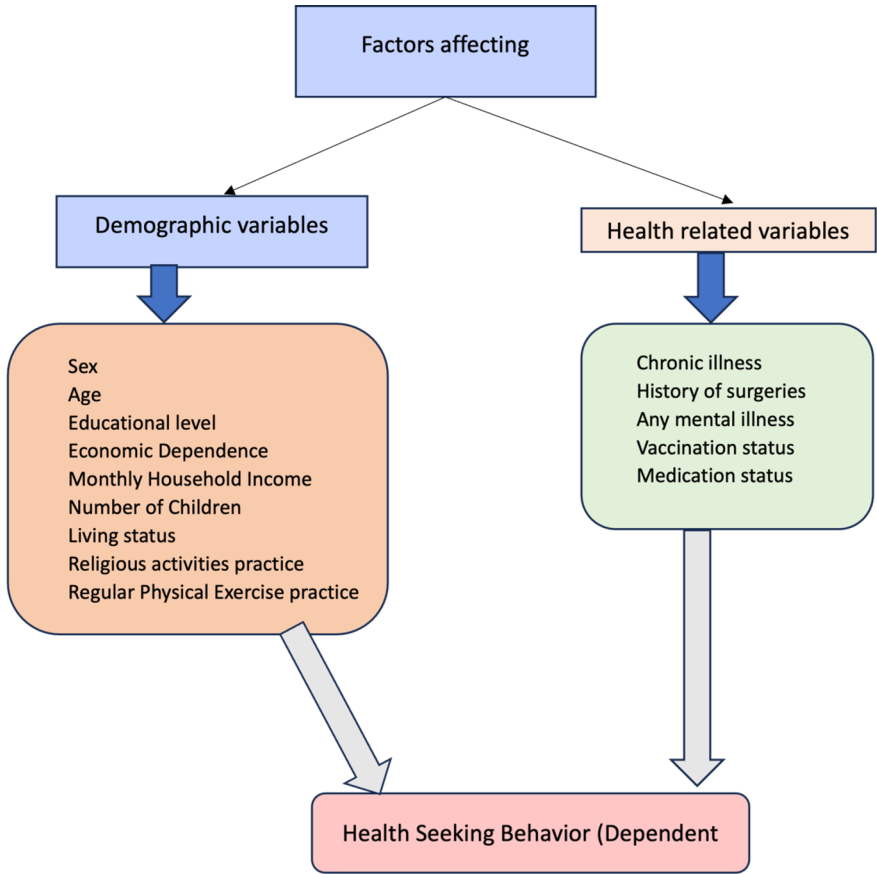


Fig. 1. Conceptual framework

2.9 Statistical Analysis

The data were cleaned, coded, and analyzed. Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize the data. One-way ANOVA and chi-square tests examined differences in HSB scores. Binary logistic

regression identified associated factors, and only adjusted results are reported. All analyses were done using SPSS version 26.0.

2.10 Prevalence of health seeking behavior among individuals

A total of 350 respondents participated; 42.0% showed health-seeking behavior, while 58.0% did not.

2.11 Demographic profile of the respondents

The study sample consisted of 350 respondents, where female (57.1%), male (42.9%). 54.3% participants were under age 50, whereas 45.7% were aged 50 or older. A substantial proportion (72.9%) had attained secondary education or higher, rest belongs to 27.1% threshold. 64.6% relied financially on others, 35.6% were self-sufficient.

In relation to monthly household income, 54.0% respondents reported revenues below 50,000 BDT, and 46.0% had a household income of 50,000 BDT or higher, reflecting a balanced economic distribution. Regarding parenthood, 57.7% of the participants indicated they have children, while 42.3% reported they do not. Regarding living arrangements, a larger proportion (56.3%) were landowners, 43.7% resided in alternative arrangements. Most respondents were involved in religious activities, with 58.6% participating frequently and 41.4% regularly, showing a strong religious influence. In contrast, 64.6% reported never exercising, while only 35.4% were physically active, indicating a lack of active lifestyles that may affect overall health and well-being.

2.12 Health & medical history profile of the respondents

More than half of the respondents (51.1%) reported having at least one chronic illness, while 48.9% did not, showing a high prevalence of long-term conditions. About 35.7% had undergone surgery, whereas 64.3% had not. In terms of mental health, 52.6% reported experiencing a disorder, highlighting its importance within the group. Most respondents (59.7%) had been vaccinated, though 40.3% had not, indicating fairly high but incomplete coverage. Additionally, a large majority (88.0%) were using medication, while only 12.0% were not.

Table 2. Association between independent variables in relation to health seeking behavior

Variables	Category	No		Yes		P-Value
		Frequency (N)	Percentage (%)	Frequency (N)	Percentage (%)	
Sex	Male	105	70.0%	45	30.0%	

	Female	98	51.7%	102	42.9%	0.000 *
Age	Below 50	120	63.2%	70	36.8%	0.033 *
	50& above	83	51.9%	77	48.1%	
Level of education	Below Secondary	71	74.7%	24	25.3%	0.000 *
	Secondary & above	132	51.8%	123	48.2%	
Economic dependence	Self-dependent	51	41.1%	73	58.9%	0.000 *
	Dependent on others	152	67.3%	74	32.7%	
Monthly household income	Below 50,000 BDT	120	63.5%	69	36.5%	0.024 *
	50,000 BDT & above	83	51.6%	78	48.4%	
Have children	No	90	60.8%	58	39.2%	0.362
	Yes	113	55.9%	89	44.1%	
Living status	Homeowner	124	62.9%	73	37.1%	0.033
	Others	79	51.6%	74	48.4%	
Religious activities	Often	134	65.4%	71	34.6%	0.001
	Regular	69	47.6%	76	52.4%	
Physical exercise	Never	148	65.5%	78	34.5%	0.000
	Regular	55	44.4%	69	55.6%	
Chronic illness	No	111	64.9%	60	35.1%	0.010
	Yes	92	51.4%	87	48.6%	
History of surgeries	No	156	69.3%	69	30.7%	0.000
	Yes	47	37.6%	78	62.4%	
Any mental illness	No	115	69.3%	51	30.7%	0.000
	Yes	88	47.8%	96	52.2%	
Vaccination status	No	37	88.1%	5	11.9%	0.000
	Yes	166	53.9%	142	46.1%	
Medication status	No	94	66.7%	47	33.3%	0.007
	Yes	109	52.2%	100	47.8%	

Table 2 shows variables significantly associated with health-seeking behavior ($p \leq 0.05$). Sex ($p = 0.000$; $p = 0.033$) has a strong influence. Education ($p = 0.000$) and economic dependence ($p = 0.000$) are also significant, suggesting that higher education and financial independence improve health-seeking behavior. Monthly income ($p = 0.024$) and living status ($p = 0.033$) indicate that financial stability and living conditions matter. Religious activity ($p = 0.001$) and chronic illness ($p = 0.010$) also play a role. Additionally, chronic illness ($p = 0.000$), surgery history ($p = 0.000$), mental disorder ($p = 0.000$), vaccination ($p = 0.000$), and medication use ($p = 0.007$) are strongly linked, showing that individuals with health experience or awareness are more likely to seek care.

Table 3. Comparison of HSB scores across categories of independent variables

Variables	Frequency & Percentage	Mean	SD	Sig	95% CI	
					Lower	Upper
Sex						
Male	150	16.41	9.44	0.026	14.89	17.94
Female	200	18.41	7.30		17.39	19.43
Age						
18-50	190	17.47	8.732	0.039	16.22	18.72
50& above	160	17.65	7.862		16.42	18.88
Level of education						
Below Secondary	95	14.28	5.438	0.000	13.18	15.39
Secondary & above	255	18.77	8.889		17.68	19.87
Economic dependence						
Self-dependent	124	20.23	8.417	0.000	18.73	21.72
Dependent on others	226	16.09	7.933		15.05	17.13
Monthly Household Income						
Less than 30,000 BDT	189	15.40	7.149	0.000	14.38	16.43
30,000 BDT & above	161	20.08	8.920		18.69	21.47

Have children						
No	148	17.03	8.615	0.318	15.63	18.43
Yes	202	17.94	8.123		16.81	19.06
Living Status						
Homeowner	197	16.54	7.535	0.009	15.48	17.60
Others	153	18.86	9.122		17.41	20.32
Religious activities						
Often	205	17.11	8.629	0.239	15.92	18.30
Regular	145	18.18	7.886		16.88	19.47
Physical exercise						
Never	226	17.14	8.658	0.212	16.01	18.28
Regular	124	18.31	7.686		16.94	19.67
Chronic illness						
No	171	16.13	8.886	0.002	14.79	17.48
Yes	179	18.91	7.549		17.80	20.02
History of surgeries						
No	225	15.49	7.476	0.000	14.51	16.48
Yes	125	21.26	8.542		19.75	22.78
Any mental illness						
No	166	14.96	8.134	0.000	13.71	16.20
Yes	184	19.90	7.822		18.76	21.03
Vaccination status						
No	42	11.40	7.781	0.000	8.98	13.83
Yes	308	18.39	8.062		17.49	19.30
Medication status						
No	141	15.82	8.567	0.001	14.39	17.24
Yes	209	18.73	7.982		17.64	19.82

Table 3 shows several factors significantly influencing health-seeking behavior (HSB). Females had higher HSB scores (18.41) than males (16.41) ($p = 0.026$). Older individuals (50+) also showed higher scores (17.65) than those aged 18–50 ($p = 0.039$). Education was strongly associated ($p = 0.000$), with secondary or higher education linked to higher scores (18.77 vs. 14.28).

Economic independence (20.23 vs. 16.09) and higher income (>30,000 BDT: 20.08 vs. 15.40) were also significant ($p = 0.000$). Living status mattered ($p = 0.009$), with non-homeowners scoring higher (18.86 vs. 16.54).

Health conditions also played a key role. Individuals with chronic illness (18.91), surgery history (21.26), or mental disorders (19.90) had higher HSB scores than those without. Similarly, unvaccinated individuals (18.39) and those using medication (18.73) scored higher. All were statistically significant ($p \leq 0.002$).

Table 4. Factors associated with health-seeking behavior (HSB)

Variables	UOR (95% CI)	P-value	AOR (95% CI)	P-value
Sex				
Male	1		1	
Female	2.42(1.55-3.79)	0.000	3.91(2.04-7.47)	0.000
Age				
18-50	1		1	
50& above	1.59(1.03-2.44)	0.034	0.10(0.01-0.94)	0.044
Level of education				
Below Secondary	1		1	
Secondary & above	2.75(1.63-4.65)	0.000	2.15(1.00-4.65)	0.050
Economic dependence				
Self-dependent	1		1	
Dependent on others	0.34(0.21-0.53)	0.000	0.17(0.08-0.35)	0.000
Monthly Household Income				
Less than 30,000 BDT	1		1	
30,000 BDT & above	1.63(1.06-2.50)	0.024	1.83(1.02-3.28)	0.040
Have children				
No	1		1	
Yes	1.22(0.79-1.88)	0.362	0.15(0.05-0.45)	0.001
Living Status				
Homeowner	1		1	
Others	1.59(1.03-2.44)	0.034	1.48(0.80-2.76)	0.209
Religious activities				

Often	1		1	
Regular	2.07(1.34-3.21)	0.001	6.06(0.51-71.45)	0.152
Physical exercise				
Never	1		1	
Regular	2.38(1.52-3.72)	0.000	4.49(1.27-15.84)	0.020
Chronic illness				
No	1		1	
Yes	1.74(1.13-2.68)	0.011	0.38(0.14-1.01)	0.054
History of surgeries				
No	1		1	
Yes	3.75(2.36-5.94)	0.000	0.22(0.12-0.43)	0.000
Any mental illness				
No	1		1	
Yes	2.46(1.58-3.81)	0.000	0.23(0.10-0.49)	0.000
Vaccination status				
No	1		1	
Yes	6.33(2.42-16.53)	0.000	0.12(0.03-0.41)	0.001
Medication status				
No	1		1	
Yes	1.83(1.17-2.85)	0.007	0.64(0.31-1.31)	0.227

Table 4 shows several factors significantly associated with health-seeking behavior (HSB). Females were more likely to seek healthcare than males (AOR = 3.91, $p = 0.000$). Education and income also had positive effects, as individuals with secondary or higher education (AOR = 2.15, $p = 0.050$) and those earning above 30,000 BDT (AOR = 1.83, $p = 0.040$) were more likely to engage in HSB. Regular physical activity further increased the likelihood (AOR = 4.49, $p = 0.020$).

On the other hand, some factors were linked to lower HSB. Individuals aged 50 and above (AOR = 0.10, $p = 0.044$), those who were economically dependent (AOR = 0.17, $p = 0.000$), and those with children (AOR = 0.15, $p = 0.001$) were less likely to seek care. Similarly, a history of surgery (AOR = 0.22), mental illness (AOR = 0.23), and vaccination (AOR = 0.12) were also associated with lower HSB, all showing strong statistical significance.

3 Discussion

The overall prevalence of health-seeking behavior (HSB) in this study was 42%, which is consistent with findings from Tanzania [21], Ethiopia [22], Hong Kong [23], and Bangladesh [24]

Several factors were significantly associated with HSB, including sex, age, education, economic dependence, income, number of children, living conditions, religious activity, physical exercise, chronic illness, surgery history, mental health, and vaccination status. Females were more likely to seek healthcare than males, which is in line with studies from Bangladesh [25], in Canada [26], in UAE [27] and in Germany [28].

Older respondents (50+) were more likely to seek care, similar to findings from Vietnam [29], Indonesia [30], and Ethiopia [31]. Education also played a key role, as higher educational attainment was linked to better health-seeking behavior, consistent with studies from East Africa [32], Zambia [33], rural India [34] and Nepal [35].

Economic factors were also important. Those who were financially dependent showed different health-seeking patterns, similar to findings in Afghanistan [36]. In rural Bangladesh, lower-income individuals were more likely to rely on informal providers [37]. Income influenced healthcare use, with higher earners more likely to seek modern care [22], although some studies showed mixed results, such as in urban slums of Bangladesh [38] and Zambia [39].

Having children was another strong predictor of HSB, consistent with studies from Peru [40], Eastern Ethiopia [41], Sub-Saharan Africa [42], and Pakistan [43]. Regular physical activity was also associated with better HSB, supported by studies from the USA [44], in China [45].

Health conditions further influenced behavior. Individuals with a history of surgery were more likely to seek care, similar to findings from Iran [46], China [47], and Turkey [48]. Likewise, those with mental health issues showed higher healthcare-seeking behavior, consistent with studies in the USA [49], and Canada [50].

Finally, vaccination status was a significant factor. Individuals uncertain about or not fully up-to-date with vaccination were more likely to seek care, similar to findings from Pakistan [51], South Korea [52], and Bangladesh [53].

4 Conclusion

The study was conducted in the Khulna region of Bangladesh and it reveals a moderate level of prevalence of health seeking behavior among the individuals of Khulna. Significant determinants of HSB include factors such as sex, age, economic dependence, household income, having children, living status, physical exercise practice, chronic illness, history of surgeries, vaccination status. These findings show the importance of addressing these identified factors through proper community intervention and expert arrangements to increase the prevalence of health seeking behavior and improve physical and mental well-being of grown-up individuals. Due to time and resource constraints, the current study was conducted on residents of grown-up individuals; therefore, more thorough research is required to investigate the causal association between health seeking behavior and the identified risk factors using a large sample.

5 Limitations

This study used quantitative methods, which may lack contextual depth; qualitative approaches could enhance understanding. Its cross-sectional design limits causal inference. A small sample from two locations reduces generalizability. Self-reported HSB may introduce bias, and limited financial resources constrained data collection, recruitment, and comprehensive analysis.

6 Declaration's statement

Ethical Approval: This study is produced as the partial fulfillment of the first author's Master of Social Science degree in Development Studies, from Khulna University, Bangladesh, endorsed by the supervisor that we didn't violate any ethical standard carrying out the research from data collection to study design, even, no clinical data have been collected and used for this study, in addition, Khulna University Ethical Clearance Committee has been approved this study protocol (KUECC-2025-08-82).

Found: No funding was awarded for this study.

Consent for publication: Not required

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

Contributions: **NN** contributed to the design of the manuscript, development of the protocol, and data analysis plan and provided oversight and interpretation of the analyses, and a critical review and draft the primary manuscript. **FTZ** contributed to the design of the study, development of the protocol, study design, and contributed to the revision. **KT** contributed to data analysis and writing the manuscript draft and contributed to the revision. **AB** and **AMAIU** contributed to the review of the relevant literature review, table preparation, and writing of the manuscript draft. **TIN and MRHR**, provided oversight and interpretation of the analyses, and a critical review of the manuscript. **NN** had access to the data in the study and took responsibility for the data's integrity and data analysis's accuracy. All authors gave final approval of the version to be published.

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