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Original Research Article

Assessment of health care seeking behaviour and its associated factors amongst the residents of a rural community of Kamrup District in Assam: a mixed method study

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ABSTRACT

Background: Healthcare seeking behaviour (HSB) is an important determinant of health outcome. There are multiple socio demographic & provider related variables which determines the HSB of a community. Recognition of these determinants is important in promoting appropriate health care seeking behaviour.
Methods: The study was a cross sectional study with mixed method design conducted amongst 200 households in a rural area of Assam. Systematic random sampling was used to determine the households to be interviewed and only one responder was taken from each household. Along with a predesigned and pretested questionnaire, health literacy was assessed through the HLS-EU-Q16 questionnaire (translated to the local language). Qualitative data was collected through 2 Focus Group Discussions and 4 In-Depth Interviews.
Results: The study determined that 62% of the population had appropriate HSB while the rest (38%) lacked appropriate HSB. The Health Literacy of 31% population was problematic, 23% was inadequate while only 46% had sufficient Health Literacy. The tribal population had significantly higher inappropriate HSB as compared to the non tribals variable [A.O.R- 2.12; CI (1.15-3.88)]. Qualitative analysis revealed that participants were multiple barriers such as "Inappropriate disease severity perception", "Inconvenient OPD timings" amongst host of other barriers. Similarly, "Pro-Active approach of Health Care Workers" was amongst the factors identified as enabler.
Conclusions: As health care providers we need to focus on the tribal community and ensure that proper confidence building measures are in place to make sure that the apprehensions are addressed.

Keywords: Health literacy, Health care seeking behaviour, Rural community

INTRODUCTION

The sustainable development goals of United Nations seeks to provide Universal Health Coverage including financial risk protection and ensure access to quality, safe and effective health-care services.[1] However, that cannot be achieved until the regional inequities that exist in terms of health care utilisation are eliminated.

There are several demographic and geographical factors which makes healthcare delivery a challenging task in North East region.[2,3] In terms of demographic characteristics, the tribal population is higher in this part of India. The tribal community contribute by Scheduled Tribes account for 12.45% of the population against the national average of 8.6% in state of Assam in the North eastern region.[4,5] There also exists an urban rural divide in terms of healthcare indicators. The rural areas of Assam lag behind as evident from the NFHS-V data in several key

indicators such as Neonatal Mortality Rate (23.4 vs 15.2), Infant Mortality Rate (33.1 vs 22.7) and Under 5 mortality rate (39.9 vs 33.0).[6] These factors influence health seeking behaviour to larger extent.

Healthcare seeking behaviour (HSB) has been defined as, "any action or inaction undertaken by individuals who perceive themselves to have a health problem or to be ill for the purpose of finding an appropriate remedy".[7] Health seeking behaviour is an important determinant of health outcome and impacts the mortality and morbidity pattern of a community.[8] A complex interaction between the patient, the diseases, and the features of the household determines the HSB of the community and the individual.[9] HSB are the decisions that are taken at individual, family and community levels to ensure optimum health status. HSB is influenced by a huge variety of factors such as age, sex, ease of access to health care services, socio-economic status etc.[10]

Health care delivery in India is a topic of particular concern because of the diversity of types of care givers ranging from traditional medicine men and spiritual healers to modern allopathic medicine practitioners. The manner in which healthcare is organized is one of the main driver of health-seeking behaviour.[11]

There are two broad groups of studies that seek to explain the factors influencing health care seeking behaviour. The research in the first group focus on how people use the formal system or how they seek medical attention. This category of studies focuses on creating models that explain the actions individuals take to obtain health care. 'Pathway models' is another name for these study types.[12] Health belief model and Andersen's Behavioural Model come under this category. The research that focuses on the sickness response process or the behaviour of seeking health make up the second group. These studies show that a range of characteristics, including socioeconomic position, sex, age, social standing, kind of sickness, accessibility to services, and perceived quality of care, affect people's decisions to interact with specific medical channels.[13] In the context of the current study, the Andersen's Behavioural Model of healthcare utilization was used to identify the factors influencing the HSB of the community.[14]

The study aims to assess the health care seeking behaviour and its associated factors in a rural area of Assam while exploring the various barriers and enablers towards proper health care seeking behaviour observed in the community.

METHODS

The study was a descriptive cross-sectional study conducted between May 2023 to Augst 2023. employing Convergent Parallel Mixed Method design.[15] The study was conducted in the rural area/village of Kamrup (Rural) district of Assam which is the catchment area of the tertiary care institute. The area has a significant tribal population (Bodo and Sarania tribes). Each household was the unit of the survey. The head of the family or any other adult member of the family was selected for administering the questionnaire after obtaining due consent. Only the households that were residing in the study area for a period of more than one year was included in the study. Households where an informant above 18 years of age was not available at the time of data collection were excluded. Quantitative aspect involved trained members of the team going to the selected households of the rural community and administering a pretested and predesigned questionnaire. The qualitative aspect was achieved through conducting two focused group discussion involving the rural residents along with 4 In Depth Interviews with relevant stakeholders.

Sample size estimation was done by considering proportion of respondents having inappropriate HSB was 47.4%, 16 considering an absolute error of 10% (e = 9.5%) and confidence interval 95% (z=1.96) in the Cochran formula (Z1-α)2(pq/e2) a sample size of 100 was obtained. It was multiplied with 1.75 to account for the design effect as systematic random sampling and a 10% non-responder rate was added to the sample size to achieve a final sample size of 200.

Each household was considered to be a unit of the quantitative survey. Systematic random sampling was utilized to select the households. A total of 1181 households were there in the particular area and every 5th house was visited.

For the qualitative aspect of the study, 4 In Depth Interviews (IDIs) were conducted and 2 Focused Group Discussions (FGDs). For the IDI, 4 relevant stakeholders were selected from within the community were selected (an ASHA worker, the Gaon Bura or village headman, an Anganwadi worker and a locally respected social leader). The respondents for IDI were taken keeping in mind that they could be influencing the health care seeking behaviour of the community.

The quantitative study was done by administering a pre-designed, pre-tested and structured questionnaire in the local language (Assamese). To determine the levels of health literacy, the HLS-EU-Q16 questionnaire (translated to the local language) was used.

The FGDs were conducted using an FGD guide devised by the researchers. The FGDs and IDIs were conducted in the local language. The themes were focused on "perception of disease severity", "facilitators in seeking health care", "and apprehensions in seeking health care services". The interviews and FGDs were continued till data saturation was achieved.

Study variables

Dependent variables: health seeking behaviour (based on their last episode of illness within the past one year) was

classified as appropriate or inappropriate based on the following criteria: a) type of practitioner from whom care was seeked- 1) Qualified Allopathic Practitioner: those who seeked care from a Registered Medical Practitioner in either Private or Public set-up was given a score of 2, 2) Qualified Alternative Medicine Practitioner: those who seeked care from registered alternative medicine practitioners such as AYUSH doctors were given a score of 1 and 3) Informal Care: those who seeked care through home remedies, quacks or self-prescribed over the counter medication were given a score of 0; b) time taken to seek care- if some sort of care was seeked within 48 hours then a score of 1 was allocated, if care was seeked after a duration of 48 hours then a score of 0 was given and if score was ≥2 then HSB was considered to be appropriate.

Independent variables

The predictor variables were modelled around the Andersen's Behavioural Model of health Care Seeking Behaviour. The variables could be widely be classified as: a) Pre-disposing variables: age, sex, occupation, marital status, family type. b) Enabling variables: socio-economic status, education of the head of the household, decision regarding health care need of the family, health literacy, health insurance, duration since last visit to a formal health care centre, visit by Health care worker within past 3 months and c) Need: presence of any chronic illness.

Data analysis was performed in Statistical Package for the Social Sciences version 16 (SPSS Inc, released 2007, SPSS for Windows, version 16.0. SPSS Inc). Descriptive statistics were used to assess the relationships between explanatory variables and inappropriate HSB. Potential covariates with $p<0.25$ were entered in a multivariate model based on the Hosmer-Lemeshow recommendations.

Thematic analysis of the Focused Group Discussion and In-Depth Interviews was done. The transcripts were prepared from the video recordings of the focus group discussions. Each author individually analysed the transcripts manually, to derive themes, codes and corresponding verbatim. This was followed by a discussion among the authors to finalise the themes and codes based on common consensus.

Ethical approval was sought and obtained from the Institutions Ethics Committee before proceeding with the study and the procedures followed were in accordance with the ethical standards of the responsible committee on human experimentation (institutional or regional) and with the Helsinki Declaration of 1975, as revised in 2000. Due consent was taken from the subjects before administration of the schedule. The subjects were explained about the nature and purpose of the study in the local language.

RESULTS

Of the 200 participants surveyed, 60% (121) were males while rest were females. A significant section of the participants was scheduled tribes (47%) who belonged to either "Bodo" tribe or "Sarania" tribe. Median age of the participants was 35.3±12.9 years. Most participants were employed in semi-skilled activities such as farming and small-scale businesses (34%) followed by housewives (28%). According to the modified BG Prasad scale (updated 2023) the respondents were almost equally divided between categories 2, 3 and 4 with roughly 27% in each category.[17] Education wise, most participants were educated till Middle School (30%).

Table 1: Health care seeking behaviour of the respondents (n=200).

Variables	Categories	Number (%)
Choice of health care provider		
	Registered medical practitioner (allopathic)	124 (62)
	Registered alternate medicine practitioner (AYUSH)	2 (1)
	Home remedies, over the counter medication (informal sector)	74 (37)
Time between onset of symptoms to seeking care		
	<48 hrs	36 (18)
	>48 hrs	164 (82)
Sought care from a RMP with or without delay/ Sought care from AYUSH doctor without delay (2)		123 (62)
Sought care from AYUSH doctor with delay (1)		2 (1)
Sought care from informal sector without delay (1)		18 (9)
Sought care from informal sector with delay (0)		57 (28)

Most of the participants were enrolled in some form of health insurance coverage (64%); amongst them most were availing government sponsored health insurance schemes (57%). A significant section (37%) of the respondents reported that the decisions on health care are taken by the Head of the households while the rest reported that decisions on health care are taken in a shared manner. Of all the head of households, the biggest section had completed education up to matriculation (30%) followed by middle school (28%). In terms of health literacy, 39% had satisfactory levels of health literacy followed by 37% with problematic levels and 24% with inadequate levels.

Around 37% had not visited a formal health care set up in the last 1 year while 62% had visited a formal health care setup within the last 1 year; 1% (3 individuals) reported to have never visited a formal health care setup. Inappropriate health care seeking behaviour was observed in 38% of the participants (Table 1).

Upon carrying out univariate analysis, variables like age, gender, marital status, type of family, occupation of the respondent, socioeconomic status, Decision regarding health care need of the family, presence of any chronic illness was not found to be significantly associated with inappropriate health care seeking behaviour. Variables like category, education of the respondent, having health insurance, last visit to a health care facility, health literacy and visit by a health care worker in last 3 months were found to be significantly associated. However, on putting the variables in a Multivariable Logistic Regression Model, only Scheduled Tribe remained a significant predictor variable [A.O.R-2.12 (1.15-3.88)]. The model showed a good fit to the data (Hosmer-Lemeshow statistic: p>0.05) (Table 2).

Qualitative

The broad themes that aroused from the Qualitative exercises were classified as either Barriers or Enablers. Each of the two broad subcategories had multiple themes which emerged during the discussions and the interviews.

Barriers

Affordability

Out of pocket expenditure continues to remain a major problem for the individuals even after enrolment of multiple Health Insurance coverage schemes by the government. Lack of availability of free medicines and costs of diagnostic tests involved in the process make seeking formal health care difficult.

Table 2: Predictors of inappropriate health care seeking behaviour (n=200)

Variables	Categories	Univariate analysis	
		OR (CI)	P value
Category	Scheduled tribes	2.34 (1.3-4.2)	0.004
	Others	1	
Education of respondent	Matriculation and above	1	0.003
	Below Matriculation	2.07 (0.88-2.8)	
Health insurance	Present	1	0.003
	Absent	2.34 (0.63-2.6)	
Last visit to a health care facility	Within 1 year	1	0.008
	More than a year back	2.23 (1.2-4.03)	
Health Literacy	Inadequate/problematic	1.89 (0.82-2.63)	0.002
	Sufficient	1	
Visit by HCW	Within last 3 months	1	0.03
	Not in last 3 months	1.67 (0.75-2.53)	

One participant from an FGD remarked that: "I could not complete the full course of medication because it was very expensive"

Another participant had remarked that: "Although some tests are free but we still need to get many tests done by our own money"

Improper perception of disease severity

If the disease is not perceived as serious initially, initiation of proper treatment gets delayed. The signs and symptoms get ignored initially by the patients as they don't perceive the ailment as "serious".

A participant had remarked: "if I get cough or cold, initially I shall just take medicine from the pharmacy … only if it doesn't get cured then we seek further treatment"

Similar view was echoed by another participant: "if the illness in big then we are bound to visit the doctor"

Accessibility

Although the area was located not too far from health care facilities, lack of Public Transportation makes it hard for the ones without a private vehicle to reach the facilities.

One of the participants remarked that: "we have to change two autos to reach the hospital"

Unfavourable timings of OPD: Many participants had remarked that due to the OPD hours coinciding with their work hours it becomes difficult for them to attend the OPD.

A female participant had remarked: "It is difficult to attend OPD as we have to look after the house during the day time"

Negative experiences

Negative past experiences in the health care facilities make it difficult for the patients to return back to the health facility.

A participant had remarked that: "we have to wait in a long line for a long time and even after that we hardly get time to tell our problems"

Enablers

Outreach activities

Mobile medical camps are conducted in the area by governmental as well as non-governmental organizations. According to the villagers, these are conducted almost every month or every other month.

According to a participant: "they check our eyes, they also give us medicines for gastritis, cough and other ailments"

Another participant remarked: "they check our sugar (random blood sugar) and pressure (blood pressure) in the camp"

Approachable ground level health care workers

The health care workers had a positive impact on the health seeking behaviour as they regularly visited the households.

One of the participants stated: "ASHA baidoo (elder sister in local language) visits our house often and asks about our well-being"

Another participant remarked that: "we have good relationship with the ASHA Baidoo and we seek her advice in case of any health-related issues"

Family Support and religious beliefs

Support of family members becomes an essential spoke in the wheel of HSB as without caring family members it is difficult to initiate treatment or maintain compliance.

A female participant had remarked: "My family takes care of me when I fell sick. They took me to a doctor."

Many of the villagers are strong adherents of the philosophy of Shankar Dev (a vaishnavite saint from Assam). The philosophy that they adhere to opposes dogmatic believes and promotes rationalism in its own unique way.[18]

A participant had remarked: "we being shankaris don't really have faith in ojhas (spirit healers), jhara-fuka or other such things"

Media and dissemination of IEC

As we live in a digital age where information is available at the fingertips, dissemination of health information has become easier than ever before, which has positively impacted the Health Care Seeking Behaviour as it was evident from the verbatims of many participants.

One suck participant remarked that: "From the Covid times onwards I have been following instructions given by the government in newspaper, television."

DISCUSSION

The current study recorded that a significant proportion of the population has inappropriate health seeking behaviour (38%). The results are similar to another study carried out in the state of Assam by Barua et al where 44% of the study population had inappropriate HSB.[19] 64% of the population had some form of Health Insurance coverage which is higher than studies done in similar settings.[16] No significant association was found between HSB and pre-disposing variables such as level of education and family type unlike other studies conducted in other parts of India.[21,22]

In other studies done in similar settings it was found that Men are more likely to seek formal health care and women are more inclined towards informal health care settings.[23,24] Contrary to the afore mentioned finding, a study done in North East India by Ngangbam et al found that women have better health care utilization.[25] However, the current study found no significant association between gender and health seeking behaviour. Significant association was found between Inappropriate HSB and tribal population in the current study. Similar findings were elicited in the study by Soren et al. in Jharkhand.[20] In similar settings it has been observed that traditional forms of spirit healer and medicine men are still the first contact health care providers. However, in the current study none of the respondents reported to have gone to a spirit healer or traditional healer in case of an episode of illness. This can be attributed to the fact that health care workers have a pro-active approach in community and play a role in regular dissemination of IEC. The aspect of spiritual believes functioning as factor that promotes a rational approach to HSB is another unique finding.

In spite of multiple barriers, the populace faces in practicing appropriate HSB like Out of pocket expenditure, inconvenient OPD timings, improper disease severity perception, accessibility Issues and negative past experiences, it is worthwhile to note that appropriate HSB in the study setting is greater than what are other studies in similar settings have determined. Easily approachable ground level health care workers (ASHA) is an enabler of proper HSB. The role of ASHA in encouraging proper HSB should be critically appraised.

There are some limitations of the findings. Although the results may be applied to plain tribes, geographical variances may mean that they do not apply to hill tribes. Furthermore, the chosen sample size is appropriate just for the local context and could not be a good representation of the state of Assam's complete indigenous population.

CONCLUSION

The study demonstrates that tribals have significantly poorer HSB as compared to non-tribals. There could be multiple socio-cultural factors that could be hindering proper HSB amongst the tribals. Although there have been multiple projects that have been tailor made for the tribal populace but in spite of all the efforts, underutilization of proper healthcare facilities remains a matter of concern. To address the intricacies of the health concerns facing Tribal people, an integrated and holistic approach incorporating all stakeholders in tandem is necessary. Proper qualitative insights from all stakeholders (health care providers and beneficiaries) are necessary to understand the grounded realities that hinder the HSB.

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