Health Insurance Awareness and its Socio Demographic Correlates among Fishermen of Dakshina Kannada District, Southern India

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Knowledge, Healthcare expense, Utilization, Health insurance, Income.

ABSTRACT

Background: Fishing is a substantial contributor to the Indian economy and Fishermen are subjected to a variety of occupational risks and are at high risk of injury. Health insurance (HI) is a strategy for reducing out-of-pocket expenses during times of illness. Fishermen are subjected to a variety of occupational risks and are at high risk of injury. People with limited resources often lack access to quality health care. Most people obtain healthcare from private providers. This results in catastrophic healthcare costs and the impoverishment of low- and middle-income people. Lack of information about health insurance schemes, budgetary restrictions, and the unavailability of suitable insurance plans customized to their individual needs, the fisherman community frequently struggles to secure health insurance coverage.

Methodology: Community-based interventional research among fisherman in the field practice area of medical college in Dakshina Kannada District in Coastal Karnataka. The data was gathered from consented individuals.

Results: The majority of the study participants 248 (75.2%) were men between the ages of 40- 50 years 101 (30.6%). A large part of study population belonged to nuclear households 260 (78.8%), with a monthly income of less than or equal to INR 10,000/- among 209 (63.3%) participants. Intervention on health insurance led to increase in awareness and entitlement among the participants.

Conclusions: Enrolment in any health insurance plan would be a tool for reducing the family's financial burden and accessing appropriate treatment when needed. This may be accomplished by educating communities about the need for health insurance.

1. Introduction

Fishing substantially contributes to the Indian economy, and the fishermen's community plays a vital role in the country's economy and food security.[1] Even though fishing is a substantial contributor to the Indian economy, most of the fishermen are still economically backward/ living in poverty as there is no fixed regular income.[2] Fishermen are subjected to a variety of occupational risks and are at high risk of injury.[3] Given that they are economically poor, fishermen frequently experience several health and well-being challenges.[4] In addition, those who live in rural areas with limited access to adequate healthcare are at a higher risk of acquiring chronic diseases.[5] Lack of financial assistance for persons in need of health care is a significant issue in low- and middle-income nations, which discourages service utilization and puts a strain on household finances. According to evidence from various developing nations, out-of-pocket healthcare costs aggravate poverty, limiting their access to quality healthcare and leading to other complications.[6,7] According to the NFHS 5 report, households with any regular member covered by a health insurance or financing plan are at 41%.[8] People with limited resources often lack access to quality health care.[9–11] The well-being and health of an individual are dependent on the well-being of their family and their communities.[12] The irregular working hours/ inflexible work schedules associated with fishing hinder them from attending/ receiving medical care as required.[13]

The overall healthcare spending in India is lower when compared with developed nations. In the United States, 16% of the GDP is spent on healthcare, whereas in India it is significantly lower at about 3.27% of its GDP.[14] According to National Health Accounts (NHA) estimates, approximately 52% of total health expenditure in India is through out-of-pocket expenditures.[15] In India, health insurance is emerging as a tool to meet the medical expenses among people seeking health services. The health insurance segment has seen significant growth over the past decade with initiatives from the government and private providers and increased awareness among the citizens. Despite these various measures, the penetration of health insurance among the population is found to be low when compared with other demographics. The level of awareness about various aspects of health insurance schemes varies from 13.6% to 90% in different states across different socioeconomic backgrounds.[16] Low levels of knowledge also lead to poor enrolment or coverage, resulting in less-than-expected outcomes or unsatisfactory results.[17–19]

An array of factors contributes to health insurance awareness and its uptake. Factors such as socio-demographic factors, pricing of the insurance schemes, coverage, affordability, and marketing are a few to mention. Health insurance coverage needs to be strengthened by enhancing the reach and effectiveness of existing schemes like Ayushman Bharat, ensuring comprehensive coverage for low-income families. In India, many studies have been conducted to determine health insurance coverage in rural and urban areas, but there have been limited studies among the fishermen community. Hence, the present study was conducted among fishermen of coastal Karnataka. The purpose of the present study was to understand the level of health insurance awareness and its socio-demographic correlates among fishermen of Dakshina Kannada district in coastal Karnataka.

2. Methodology:

Study setting: The study was carried out in the field practice area of the medical college among the fishing community of Dakshina Kannada district of Coastal Karnataka, Southern India.

Study design: A community-based interventional study design was adapted to carry out the study over one year among the fishermen in the field practice area of the KS Hegde Medical Academy coastal area in Dakshina Kannada, Karnataka.

The study population included head or decisive members of the household from the fishermen community who are residents of the village. Among the eligible participants who did not consent, they were excluded from the study.

Sample size and sampling technique: According to NFHS-4 data, the number of households with any regular member insured by a health insurance scheme was 28.7%. The sample size was calculated using the formula N = (4pq) /d2 with an absolute error of 5%. The sample size was calculated to be 328. A total sample size of 330 was considered for this study.

A systematic sampling method was used to carry out the study. The sample interval (K) was calculated by using the sample size as K = Total number of households / Sample size K = 850/330 = 2.57 ~ 3. By using the sample interval K = 3, every third household was selected after the previous household. If the house was closed on the day of the visit, the house number was marked and revisited. If found closed or not willing to participate, the next house was considered for the study until the required sample size was achieved. By using the household numbers documented in the village survey book, households were selected by systematic random sampling method. By using the sample interval K = 3, a household between the 1st household and the 3rd household was selected randomly, i.e., known as the ‘random start household’ by the lottery method without replacement as the first household and followed by that household, every 3rd household was selected after the previous household.

Inclusion Criteria: Head or decision-making member of the family

Exclusion criteria: Those under the influence of alcohol at the time of visit and migrants were excluded.

Study tool: A self-designed, pre-tested, structured, and validated questionnaire in the vernacular language (Kannada) was used for data collection. The questionnaire was initially developed in English and converted to Kannada. The questionnaire was used to gather information on sociodemographic factors and health insurance awareness. The questionnaire consisted of different sections for basic socio-demographic details like name, age, income, size of the family, ration card, etc. The other part was related to awareness of health insurance, level of awareness, enrolment in an insurance scheme and utilization of health insurance.

Method of data collection: After receiving approval from the central ethics committee, the study was carried

out. For the study, eligible and consenting individuals from the fishermen community in the field practice area of K S Hegde Medical College in coastal Karnataka were considered. Data collection was done by visiting each house and interviewing the head or decision-making member of the household. If the house was closed on the day of the visit, the house number was marked and revisited. If found closed or not willing to participate, the next house was considered. The questionnaire was used to gather information on socio-demographic factors and health insurance awareness among the study participants. All participants were offered education on health insurance through sessions to raise their awareness of health insurance. A post-test was administered to the participants to assess their knowledge gained after two months of educational sessions.

Confidentiality and anonymity of all the participants were maintained throughout the study.

Statistical Analysis:

All the data was entered into Microsoft Excel and analysed using IBM SPSS version 23 software for Windows. The data is presented in descriptive statistics and summarized in terms of frequency and percentage. P <0.05 was considered statistically significant.

3. Results:

Table 1 shows the demographic features of the study participants. Many of the study participants were men 248 (75.2%). The maximum number of participants was in the 40-50-year age group 101 (30.6%). Most of the study participants were from nuclear households 260 (78.8%), and the socio-economic status among the participants was found to be significantly low. A monthly income of less than or equal to INR 10,000/- was seen among 209 (63.3%) of the participants and 177 (53.6%) participants had primary education.

Figure 1 shows that in the present study, 129 (39.09%) subjects were aware of Health Insurance (HI) and 238 (72.12%) participants had enrolled in different health insurance schemes. Following intervention, the proportion of individuals eligible for health insurance improved from 238 (72.12%) to 286 (86.66%).

Table 2 shows the association between socio-demographic characteristics and awareness of health insurance. Socio-demographic characteristics such as marital status, family type, family members/size of family, and age group were found to be statistically significant among the participants.

Figure 2 represents the research participants' increased awareness and knowledge after obtaining education as an intervention. The awareness was found to be significantly increased in the post-test after the intervention. Similarly, the number of participants enrolled in health insurance was also found to be higher when compared with the pre-test.

Table 1: Demographic characteristics of study participants (n=330)

Characters	Frequency	Percentage
Gender		
Male	248	75.2
Female	82	24.8
Age group		
≤ 20	4	1.2
20-30	22	6.7
30-40	52	15.8
40-50	101	30.6
50-60	94	28.5
>60	57	17.3
Marital status		
Married	235	71.2
Unmarried	67	20.3
Widowed	28	8.5
Type of family		
Joint family	69	20.9
Nuclear	260	78.8
Three generation	1	0.3
Educational status		
Illiterate	4	1.2
Primary	177	53.6
Secondary	51	15.5
SSLC/ Matriculate	58	17.6

PUC	25	7.6
Graduation	15	4.5
Monthly income		
≤10000	209	63.3
>10000	121	36.7
Religion		
Hindu	305	92.4
Muslim	25	7.6
Ration card		
Yes	324	98.2
No	6	1.8

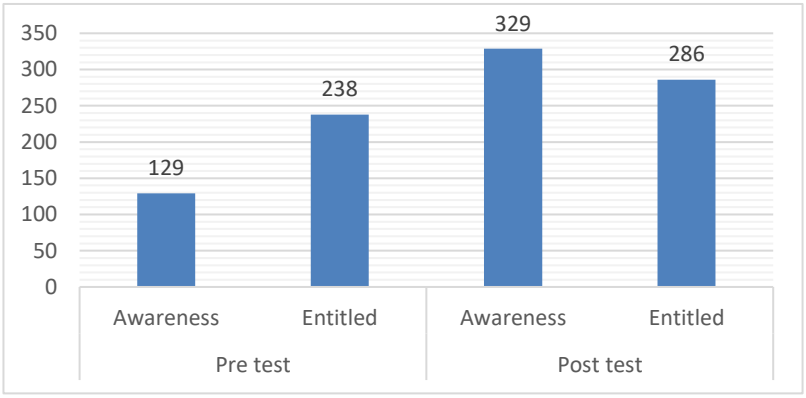

Figure 1: shows the awareness and entitlement to Health Insurance among the study subjects.

Table 2: Association of socio-demographic characters and awareness on Health Insurance (n=330)

Characteristics		Awareness		p value
		NO (N=201)	YES (N=129)	
Marital status	Married	140 (69.7%)	95 (73.6%)	0.016*
	Unmarried	37 (18.4%)	30 (23.3%)	
	Widowed	24 (11.9%)	4 (3.1%)	
Type of family	Joint	29 (14.4%)	40 (31.0%)	< 0.001*
	Nuclear	172 (85.6%)	88 (68.2%)	
	Three generation	0 (0.0%)	1 (0.8%)	
Members in the family	1 – 4 members	148 (73.6%)	52 (40.3%)	< 0.001*
	5 – 7 members	47 (23.4%)	65 (50.4%)	
	8 or more	6 (3.0%)	12 (9.3%)	
Age group	<40 years	37 (18.4%)	30 (23.3%)	0.040*
	40-60 years	109 (54.2%)	79 (61.2%)	
	≥60 years	55 (27.4%)	20 (15.5%)	

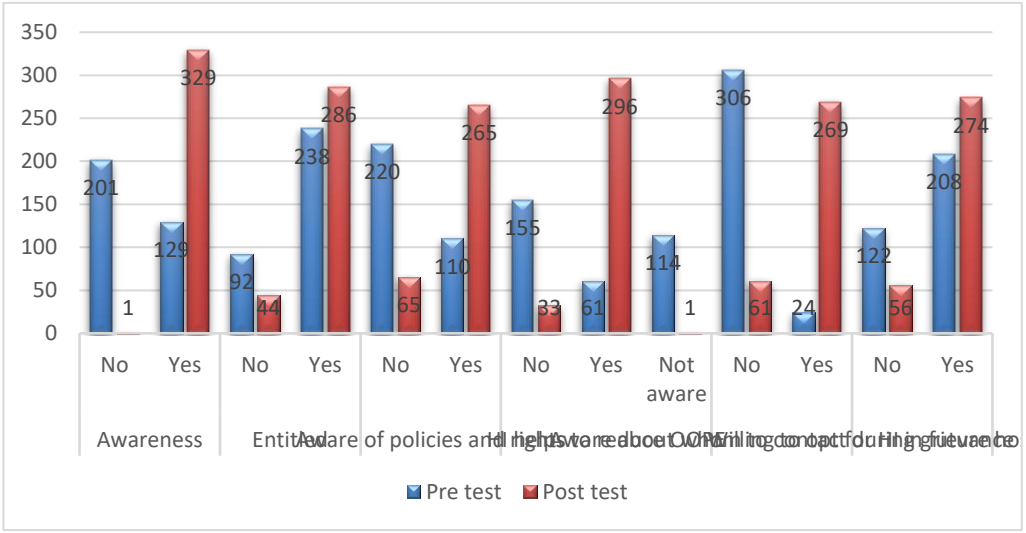

Figure 2: Depicts knowledge and gain in knowledge on health insurance among the study participants during

pre and post intervention tests.

4. Discussion:

The current study attempted to comprehend the foundation of health insurance knowledge among the fishing community. According to the findings of the current study, most participants were males between the ages of 40 and 50 years. A considerable proportion of the study population came from low-income families with an annual income of less than INR 10,000 rupees. More than three-fourths of the study participants were from nuclear families.

In the present study, 39.09% of fishermen were aware of health insurance. The level of awareness in the current study was much lower when compared to a study done by Surendra et al. in an urban setting, with 53.8% awareness of health insurance among participants[20]. Similarly, awareness was significantly lower when compared with another study by Indumathi K et al., which reported 75.4% awareness in rural Bangalore[21]. However, the current study showed that 72.12% of the participants were eligible for some type of health insurance, which is higher when compared with a study done by Baisil S et al., which found only 57% of patients visiting hospitals were enrolled in health insurance.[22] Lack of awareness was a major reason for not having insurance including Ayushman Bharat. To address this, all participants were educated about health insurance through education sessions, which proved to be effective in the post-test. As a result, enrollment in health insurance among study participants increased from 72.12% to 86.66%. To further improve awareness in the community, measures should be taken within the community through initiatives from organizations like self-help groups, NGOs, hospitals, and the government.

In the fishermen community, various socio-demographic characteristics were found to be associated with awareness of health insurance ($p<0.05$). The awareness of health insurance was higher among married and nuclear families with 1-4 members in the family, and individuals in the age group of 40–59 years showed higher awareness when compared to other age groups. Sophie H. Allcock et al. reported that sociodemographic characteristics such as education and income were substantially connected with knowledge of health insurance in a study carried out in Namibia.[23] The results of the current study are supported by a study done in Mumbai by Thampi J. G. et al. which reported that sociodemographic characteristics such as gender, religion, nuclear families, socioeconomic status, higher education, married status, and more professional and skilled work had a strong association with awareness of health insurance.[24] Nuclear families lack the financial support structures and resource pooling that traditional Indian joint families have and thus may feel the need for health insurance more than ever before. Married respondents may be more versed due to the financial burden put on them, which prompts them to investigate health security choices.

In the present study, following participation in educational workshops, individuals' understanding and entitlement to health insurance increased significantly. The number of participants enrolled in health insurance increased to 286 when compared to 238 during the pre-test. A significant increase in awareness of health insurance was noted when compared with the pre-test. Similar findings were found in a study conducted by Ghaddar S et.al. and Reshmi B et.al. in different settings.[25,26] Reliance on out-of-pocket expenses (OOPE) for health services likely leads to a catastrophic burden for many households. Imparting education is one such way to reduce the burden of OOPE.

Private insurance companies should create insurance policies tailored specifically to the requirements of those who are poor. It is critical to tailor health insurance education to the cultural context of the fishing community. Understanding the fishermen's requirements, language preferences, and cultural concerns can improve the success of health insurance education campaigns. Collaboration with local organizations, fishing cooperatives, or community leaders can help with health insurance information dissemination. These organizations can play an important role in organizing workshops, disseminating instructional materials, and addressing specific community needs. For greater community outreach, the existing schemes should be sensitized through local bodies, self-help organizations, ASHA, panchayats, and so on.

5. Limitation of the study:

The study was done among the fishermen community of coastal Karnataka; hence this cannot be generalized with fishermen of other regions and among other financially backward communities.

6. Conclusion:

The current study found that people were aware of health insurance. Nonetheless, there is a need to raise health insurance awareness to avail more benefits. This may be accomplished by educating communities about the need for health insurance. Enrolment in any health insurance plan would be a tool for reducing the family's financial burden and accessing appropriate treatment when needed. Health insurance education among fishermen is critical to addressing the issues they confront and promoting improved health outcomes and financial stability within this occupational group.

Conflict of Interest: None declared

Funding: No financial support was received from any organization for the submitted work.

Approval of Institutional Ethical Review Board: Consent was obtained from all participants in this study. This study was approved by the Central Ethics Committee, KS Hegde Medical Academy, Nitte (DU) (Ref. NU/CEC/2021/90). The principles of ethics were adhered to throughout the study and thereafter.

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