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Original Research Article

Barriers to the accessibility of health insurance in elderly patients attending NCD clinic in a tertiary care hospital Trichy, Tamil Nadu: a mixed-method study

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ABSTRACT

Background: Health insurance schemes launched by governments have been inadequate to provide health coverage to the vulnerable elderly population. This research aimed to study the prevalence, preference, and pattern of health insurance coverage among the study participants and barriers to its accessibility.
Methods: It was a facility-based Sequential explanatory mixed-method study where patients above 60yrs attending the non-communicable disease OPD were recruited by systematic random sampling and enquired using a semi-structured questionnaire for the prevalence, preference, and pattern of health insurance. Focussed Group discussions (FGD) were later conducted to explore the barriers faced by participants in accessing health insurance.
Results: Health Insurance coverage among the study participants was 74.5%. Of the participants who had any type of health insurance, 86.7% had public health insurance. About three fourth (73.8%) of those who had health insurance were covered under the CMCHIS. Mean health insurance coverage provided was significantly higher by private health insurance (INR170897.4) as compared to both the LIC and CMCHIS ($p<0.01$) while premium charged was significantly higher for LIC (INR 10003.3/yr.) as compared to others ($p<0.01$). Institutional issues, lack of awareness, and economic dependence on children were considered as barriers to the accessibility of health insurance among elderly.
Conclusions: A dedicated universal Health Insurance Programme with higher monetary coverage and low premium involving all elderly populations may provide necessary financial risk protection and reduce out-of-pocket health expenditure.

Keywords: Catastrophic, Elderly, Geriatric, Health expenditure, Health insurance

INTRODUCTION

The Sustainable Development Goals (SDG) target 3.8 aims to achieve Universal Health Coverage (UHC) through financial risk protection and access to quality essential health care services through affordable essential medicines and vaccines for all.[1] In this context the National Health Policy of India 2017 enshrined the objective of achieving universal health coverage (UHC) by providing accessible, comprehensive quality health services at an affordable cost to achieve a significant reduction in out of pocket expenditure of households.[2] This vision to achieve Universal Health Coverage (UHC) was further strengthen by the launch of Pradhan Mantri

Jan Arogya Yojana (PM-JAY) by the Government of India to provide health insurance cover of Rs. 5 lakhs per family per year for secondary and tertiary care hospitalization to over 10.74 (approximately 50 crore beneficiaries) poor and vulnerable families.[3] Further, various states had previously launched health insurance schemes like the Delhi Health Scheme of the Delhi government ,the Mahatma Phule Jan Arogya yojana of the Maharashtra government, and the Chief Minister's Comprehensive Health insurances Scheme (CMCHIS) of the Tamil Nadu government providing health insurance coverage to vulnerable groups based on specific criteria.[3-5] Though various states over the years have launched various health insurance schemes, the Out of Pocket health expenditure (OOPHE) for Indian households (including insurance contributions) continue to be high as Rs. 3,08,255 crores which form 61.4 % of the total health expenditure (THE).[6] Catastrophic health expenditure (CHE) among households have increased from 15% in 2004 to 18% in 2014 according to the National Sample survey organization (NSSO) 71st round of social consumption on health january-june 2014.[7]

The NSSO in the 75th round report on health of India states that 85.9% of the population in rural India and 80.9% in urban India are not covered by Heath expenditure coverage while the NITI Aayog states that 40 crores of the eligible population are left out of any health insurance scheme.[7,8]

This situation is further aggravated by the absence of actionable data on health insurance coverage on the vulnerable groups like the elderly (>60yrs) population which comprises nearly 138 million (10.1 % of the total population) as of 2021 and projected to increase to 193.8 million (13.1%) by 2031.[9]

That means life expectancy in elderly patients is going to increase which, in turn, will be associated with an increasing demand for healthcare and subsequent health care protection due to greater prevalence of disabilities and morbidity in the older age group.[10]

Though the rights of older persons to social security and to an adequate standard of living to support their health and well-being, including medical care and necessary social services, are well protected in major international human rights instruments like the Universal Declaration of Human Rights (UDHR), 1948, and the International Covenant on Economic, Social and Cultural Rights (ICESCR), 1966, the NSSO 75th Round on Social Consumption on Health in India (2017-18) states that about 70 percent of the aged persons depend on others for their day-to-day maintenance with the situation worse for elderly females.[7,11]

Such economic dependence leaves the elderly population at the vagaries of their caregivers without any social security measures. So, the present study was conducted to find out the extent of Health insurance coverage among the elderly population and the barriers they face while accessing it.

This research aimed to study the prevalence, preference, and pattern of Health Insurance and coverage among the study participants and to study the barriers to the accessibility towards Health Insurance among the study participants.

METHODS

Study type

The present study was a sequential explanatory mixed-method design.

Quantitative: Observational descriptive cross-sectional design was conducted for the study duration of 3 months in the year of 2020 from October to December in the field practice area of the Tertiary health care institute in Trichy district of Tamil Nadu.

Qualitative: Two Focused Group Discussion (FGD) was done using grounded theory to explore the barriers to accessibility in purchasing health insurance at old age. The Qualitative part of the study was done in December 2020.

Study participants and sampling

The sample frame of 1623 elderly patients (60 years and above) attending the field practice area of a tertiary care center hospital was obtained and every 4th patient attending the NCD CLINIC was included in the study as study participants by systematic random sampling. If the 4th person was not present at that time, the 5th person was included and we achieved a sample size of 396.

Inclusion criteria

Study participants who gave consent and were more than 60 years of age were included.

Exclusion criteria

Study participants who were chronically ill and above the age of 85 years were excluded.

Sample size

The NFHS-4 (2015-2016) recorded that health insurance coverage in rural areas of India as 28.9% and Tamil Nadu as 69 %.[12,13] So assuming a mean prevalence of 49 % and considering 5% non response rate minimum estimated sample size calculation was 403.

Data collection and questionnaire

The data collection was based on a pre-designed, pre-tested, semi-structured questionnaire, administered to the

study respondents. The questionnaire included the questions pertaining to socio-demographic data and prevalence, preference, and the pattern of health insurance. The data was collected after obtaining Institute Ethics Committee approval (Ref. No: 182/ME-1/2020 – IEC No: 033) and written informed consent from the participants.

Two FGDs were conducted at a time and place convenient to the participants. There were 12 participants each who were vocal and willing to participate. Written informed consent was obtained from each participant and the FGD was conducted by a trained facilitator. The discussions were audio-recorded and noted simultaneously by 2 people separately who were also trained in qualitative research.

Statistical analysis

For quantitative data, the data entry was done in MS Excel 2007. The data analysis was done using SPSS Version 16. The continuous variables were represented in the form of mean and standard deviation and categorical variables in percentages and proportions. ANOVA was used for comparison of means and p-value less than 0.05 was considered as statistically significant. For qualitative data, manual content analysis of the transcripts was done. The analyses of interview transcripts were begun after the interview. The transcript was read at least twice and inductive and deductive codes were derived from the transcript. Later similar codes were merged to form categories.

RESULTS

Socio-demographic of the study participants

In the present study out of 396 study participants, majority of the participants 336 (84.8%) were in the young-old age group of 60-69 years. The mean age of study participants was 66.1±5.01 years.

Most of the participants 248 (62.6%) were male whereas 148 (37.4%) were female. Majority of the participants 344 (86.9%) were married, 339 (85.6%) belonged to the Hindu religion. Almost 245 (61.8%) were educated below high school level and 325 (82.1%) were employed at present. About three fourth of the participants 294 (74.2%) were earning less than Rs.10000 per month with a mean monthly income of Rs.8959.5±5607. The majority of participants 254 (64.1%) belonged to nuclear families with 264 (66.7%) participants having some sort of assets. About 368 (92.9%) participants replied they didn't receive any social support (Table 1).

Table 1: Socio-demographic characteristics of the study participants (n = 396).

		Frequency	Percent
Age (years)	60-69	336	84.8
	70-79	46	11.6
	≥80	14	3.6
Gender	Female	148	37.4
	Male	248	62.6
Marital status	Divorcee and widow	49	12.4
	Married	344	86.9
	Unmarried	3	0.7
Educational qualification	Graduate	35	8.8
	Higher secondary	26	6.6
	Below high school	245	61.8
	Illiterate	90	22.7
Current occupation	Employed	325	82.1
	Unemployed	71	17.9
Income from all sources/month	≤10000	294	74.2
	10001-30000	99	25.0
	≥30001	3	0.8
Social support	No	368	92.9
	Yes	28	7.1

Accessibility of health insurance

In the present study, out of the 396 study participants, 295 (74.5%) replied that they have some form of health insurance. Out of the 295 participants who had health insurance, 256 (86.7%) had public health insurance while 39(13.3%) had private health insurance. Among those who availed public health insurance, 218 (73.8%) study participants were beneficiaries of the Chief Minister Health Insurance scheme (CMCHIS), 38 (12.8%) had access to Life Insurance Corporation (LIC) insurance. About half of the study participants (47.5%) replied that the health insurance coverage is extended to all family members, 103 (34.9%) replied that only the premium

payee is covered while 52 (17.6%) replied that spouse is also included in the health insurance coverage.

Out of the 295 insured study participants, 43 (14.6%) were hospitalized last year for any illness. Out of the 43 participants, 42 (97.8%) participants replied that the health insurance company covered the cost of hospitalization, while 40 (93%) participants replied that it covered the entire cost of hospitalization (Table 2).

Health coverage and yearly premium

Mean health insurance coverage provided every year was significantly higher with an INR 170897.4±11703for private health insurance providers as compared to INR 128611.1±89822 every year for LIC and INR 101382.5±11703for CMCHIS. Mean yearly premium paid by study participants was significantly higher for LIC (INR 10003.3) than CMCHIS (INR 4620.2) and private health insurance (INR 7068.2) (Table 3).

Table 2: Access to various health insurances.

		Frequency	Percent
Currently have a health insurance (n=396)	No	101	25.5
	Yes	295	74.5
Type of health insurance availed (n=295)	Private	39	13.2
	Public	256	86.7
Name of health insurance availed (n=295)	CMCHIS	218	73.8
	LIC	38	12.8
	Private	39	13.2
Coverage of health insurance (n=295)	All family members	140	47.5
	Couple	52	17.6
	Individual	103	34.9
Were you hospitalised last year (n=295)	No	252	85.4
	Yes	43	14.6
Who paid for your hospitalisation (n=43)	Insurance Company	42	97.8
	self	1	2.2
Did the health insurance covered the entire cost of hospitalisation (n=43)	Yes	40	93
	No	3	7

Table 3: Health insurance coverage and its respective annual premium.

Variables		N	Mean	SD	Test of homogeneity of variances		ANOVA	
					Levene statistics	P value	F	P value
Health coverage (INR)	CMCHIS	217	101382.5	11703.4	122.7	0.000	24.2	0.00
	LIC	36	128611.1	89822.1				
	Private	39	170897.4	135150.4				
Annual premium	CMCHS	217	4620.2	4506.4	21.7	0.00	15.0	0.00
	LIC	36	10003.3	9752.9				
	Private	39	7068.2	6829.3				

Table 4: Content analysis of not purchasing health insurance in old age.

Codes	Categories	Themes
Staff explicitly not explaining all the insurances available	1. Institution related	Reasons for not purchasing health insurance
Emergency Situations - Not all insurances are available in all hospitals		
Government insurances are not given priority		
Did not realize importance while young	2. Less awareness/knowledge	
Less awareness regarding government schemes		
Less knowledge about coverage of diseases		
Fear of coverage issues due to existing diseases		
More premium for private schemes	3. Monetary issues	
Geriatric insurances are costlier		
No Pension in private sector for expenses		
Debts issues		

Continued.

Codes	Categories	Themes
Savings channeled into savings such as FD and real estate		
Dependent		
No motivation from anyone to purchase	4. Family support	
Emergencies-hospital preference not given to patient		

We conducted FGD with 12 elderly at the conference hall in our urban field practice area. Of the 12 elderly selected purposively for the FGD, 7 were males and 5 were females. About 4categories were grouped into one thematic area, which were derived from the content analysis of the interviews (Table 4).

Theme

Barriers to purchasing health insurance in old age

Catergory 1: Institution related-Participant 3 said, “Please do not come with government insurances here. The private hospitals do not want to take in patients holding government insurances". When probed as to why he said that all diseases are not covered and said that we have to go elsewhere. Participant 6 said “But we never know sometimes. My son got admitted in a private hospital without any insurance and got his expenses covered.” He said his son met with an accident and got covered in the third party insurance from the vehicle that hit. The expenses were covered by a legal advisor first in the hospital which was reimbursed by the third party vehicle insurance later. This was a very novel finding in our research where private hospitals use this type of strategies to cover more patients.

Category 2: less awareness/knowledge. Participant 5 said, “Those days we did not know the importance of health insurance when we were earning well”. They said no one had the knowledge of the schemes (both private and government) as falling ill / meeting with an accident was thought of as a rare event in their lives and to even think in that direction will always bring us bad luck.

Category 3: Monetary. Participant 3 said, "All our expenses were channeled towards savings. That is how we were groomed by our parents". He said that educating and marrying off his two daughters was a big task that no one ever thought about it.

Category 4: Family support. Participant 1 said, “During old age, we become highly dependent on our sons. So we follow whatever they say". He said that his pensions were handled by his son where he takes a major part of it for running the family where he is left with very little money. When he initiated the topic of insurance, his son was very reluctant in proceeding with it.

DISCUSSION

The present study observed that out of 396 participants interviewed, the majority were males and the mean age of the study participants was 66.1±5.01 years. Similarly, Madhukumar et al reported predominantly male participants (94.9%) in a rural population in Bangalore.[14] In contrast most of the study participants were females in the study from the United States.[15] The proportions of females were fewer compared to males because the head of the family and the financial decision-maker in India is more often a male.

The majority of the study participants were in the age group of 60-69 years. Similarly, the majority of the participants were in the young-old age group of 60-74 years in the United States.[15] It is explained by the fact that the premium for the insurance is higher for the very old age group compared to the young old. The majority of the participants in this study were educated below high school level which was similar to the study by Allcock et al and Wang et al.[16,17]

In the present study, it was found that 74.5% of the study participants had availed health insurance and among these, 86.7% had public health insurance. The proportion of health insurance coverage was higher than the national average (28%) and the state Tamilnadu average (59.2%).[12,13] However in various studies the proportion of availing health insurance among the participants ranged between 17.5% - 41%.[14,16,18] The reason for the highest proportion of health insurance in this study was explained by the fact that the study participants were senior citizens.

More than one-third of the study participants had insurance coverage extended to all family members and individual payees respectively. Ponnusamy et al also found about one-third (38.2%) had insurance at individual level.[18] In contrast to the current study Madhukumar et al reported more than half of the study participants had insured all the family members.[12] This may be because the majority of the population in a metropolitan city like Bangalore are from upper socio-economic classes and their improved awareness through social marketing.

About 15% of the study participants had availed of insurance coverage during hospitalization in the past year. However, Madhukumar et al found that out of the 75 families who had health insurance, 23 (30.7%) of the families had availed benefits during hospitalization for major and minor surgeries.[12] It is expected that India’s recent flagship program Ayushmann Bharat (PM-JAY) with cashless benefits through public health insurances will benefit the below poverty households.

There were no old-age health insurance schemes available for direct comparison. Madhukumar et al has found out

that barriers for not purchasing health insurance were low income/uncertainty of income, not reliable, not taken by relatives/friends, etc.[12] Another study done by Ponnuswamy et al quoted lack of awareness, monetary aspect, issues with services as client's perspectives and lack of reliability, constraints in terms and conditions and difficulty in claiming health insurance were the categories of providers perspective.[18] This study explained the barriers to not getting health insurance in old age specifically. The reasons were Institution related which explored reasons like coverage of third party insurance by legal advisors in private institutions which are relatively a new finding. The other reasons were monetary, lack of awareness/knowledge, and lack of family support.

The strength of this study is it is a mixed-methods study where the current status of availing health insurance was explored from various perspectives.

The study was restricted to the elderly attending NCD clinic, leaving out many more elderly from the community. So a proportion of this vulnerable group was missed out.

CONCLUSION

Though the health insurance coverage was higher among the study participants, the monetary value of coverage was lower with higher premium rates. A dedicated universal Health Insurance Programme with higher monetary coverage and low premium involving all elderly populations may provide necessary financial risk protection and reduce out-of-pocket health expenditure.

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