

Patient's awareness and satisfaction level of Social Health Security Scheme in the tertiary level hospital: A study in Dhulikhel hospital

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ABSTRACT

Background: Government of Nepal aims to enable its citizens to access quality health care services without placing a financial burden on them via Social Health Insurance Scheme (SHSS). It is expected to reduce barriers to health-care utilization while also ensuring equity and access for low-income and disadvantaged populations in order to achieve Universal Health Coverage.

Objectives: This study aimed to assess the patient's awareness and satisfaction level of Social Health Security Scheme in a Tertiary Level Hospital in Nepal.

Methods: A hospital-based descriptive cross-sectional study was conducted between September 2022 and June 2023 with 423 patients who visited the inpatient and outpatient departments of Dhulikhel Hospital and registered under the Social Health Security Scheme. Patients' satisfaction levels were evaluated using a valid tool, the Patient Satisfaction Questionnaire (PSQ-18). The collected data were entered into MS-Excel and analysed using STATA version 13. Descriptive statistics were analysed to assess the characteristics as well as level of satisfaction on SHSS of the participants.

Results: Among 423 evaluated participants, majority (26.71%) were found to have good satisfaction (66 to 90 points), and 71.87% had average satisfaction (42 to 65 points). The highest level of satisfaction was observed in the access and convenience domain, with a mean score of 14.52 ± 1.71 . The average of overall satisfaction score was 57.82 ± 3.71 .

Conclusion: Awareness of health insurance schemes was high among the participants. Most participants rated their satisfaction as good, indicating a positive perception of the healthcare services provided. However, a significant proportion gave average evaluations, suggesting the need for improvements in certain areas.

Keywords: Health insurance program, Patient's awareness, Satisfaction level, Social Health Security Scheme

1. Introduction

Promoting well-being by ensuring healthy lives remains one of the key agendas in the Sustainable Development Goals (SDG) adopted by the United Nation (UN) member states in 2015. Government of Nepal aims to enable its citizens to access quality health care services without placing a financial burden on them. Health Insurance program helps prevent people from falling into poverty due to health care costs i.e. catastrophic expenditure due to accidents or disease by combining prepayment and risk pooling with mutual support [1].

A sharp increase of healthcare utilization with the introduction of Community Health Insurance was found in Nigeria [2]. In Sub-Saharan Africa and Southern Asia, only 5-10% of people are covered with social security programs, while in middle-income countries coverage rates range from 20% to 60% [3]. In Asia and the Pacific, Japan and the Republic of Korea have universal coverage of Social Health Insurance, while lower middle-income countries like Thailand and Philippines have a high proportion of Social Health Insurance coverage [4].

The Government of Nepal established a Social Health Security Development Committee as a legal framework in February

2015, an initial step to social health security scheme [5]. The social protection program attempts to address barriers to health service utilization and to ensure equity and access for poor and disadvantaged groups as a means to achieve Universal Health Coverage (UHC) [6]. Health Insurance program needs national solidarity especially at the political level, along with public support, and people's acceptance. Without positive attitudes, perceptions and quality health services, it is not possible to operate a Health Insurance program successfully [7]. So far, there have been a few studies conducted on patient's awareness and satisfaction level at tertiary level hospitals. Thus, this study aimed to explore the awareness and satisfaction level of government health insurance program in a tertiary level hospital. The results will act as essential evidence for providing recommendations for the improvement of social health security program (SHSP) which will help achieve UHC in Nepal.

2. Methods

2.1 Study Area

The study sites included both inpatient and outpatient departments of Dhulikhel Hospital as it is one of the major tertiary level hospitals providing social insurance system of Nepal.

Moreover, the hospital is providing more than 60% of patients with health insurance from different districts of Nepal (both rural and urban areas). In addition to that, a researcher is well acquainted in of the facilities.

2.2 Study Design

This cross-sectional study was conducted between September 2022-June 2023. The study population was both inpatients and outpatient department patients visited to Dhulikhel Hospital who were aged 18 and above registered under social health security program.

2.3 Sample size and sampling

The total sample composed of 423 which was calculated using following equation: $n = (z^2 * p * q) / d^2$

Where,

z = Standardized normal deviate (Z at $\alpha = 0.05$) = 1.96

p = Prevalence of awareness about consumer's rights (50%)

$q = 1 - p = 1 - 0.50 = 0.5$

d^2 = clinically expected deviation i.e.

allowable error (5%) = $(0.05)^2 = 0.0025$

Therefore, the calculated sample was 384 as

$n1 = [(1.96)^2 \times 0.5 \times 0.5] / 0.0025 = 384$.

Adding non-responsive rate of 10%, and we got $n2 = 39$

Therefore, the final sample size was 423 as $n_{\text{final}} = n1 + n2 = 423$. Finally, the study population was selected by using systematic random sampling method.

2.4 Data Collection

A structured questionnaire was used to assess the awareness and satisfaction level. The data was collected through face-to-face interview using printed interview schedule to the patients who were registered under Social Health Security Program and visited either outpatient or inpatient department during the data collection period.

2.5 Data Analysis

The collected data was initially entered into an Excel data entry file. The information was subsequently transferred to STATA version 13. The categorical data was reported as number and percentage. Mean, standard deviation, median, and range (minimum: maximum) were described for continuous variables.

3. Results

Socio-demographic characteristics

In this study total participants were 423 with 44.68% of male and 55.32% of female. The

observed mean age was 45.18 ± 14.68 years, the lowest age of the participant was 19 and oldest age was 86. More than half of the participants were Brahmin/Chhetri (59.57%)

followed by Janajati (33.10%). Majority of the participants (70.21%) had five or more members in their family (Table 1).

Table 1: Baseline characteristics of respondents (n=423)

Characteristics	Frequency (n)	Percentage (%)
Age		
<30	70	16.55
30-50	191	45.15
>50	162	38.30
Mean (SD)	45.18 (14.68)	
Median (Min: Max)	45(19:86)	
Gender		
Male	189	44.68
Female	234	55.32
Residence		
Urban	344	81.32
Rural	79	18.68
Ethnicity		
Dalit	23	5.44
Janajati	140	33.10
Madesi	7	1.65
Muslim	1	0.24
Brahamin/Chhetri	252	59.57
Religion		
Hindu	372	87.94
Buddhist	41	9.69
Muslim	1	0.24
Christian	9	2.13
Educational Status		
Literate	322	76.12
Illiterate	101	23.88
Grade Completed		
Basic School Level	102	31.68
Secondary Level	143	44.41
Bachelor Level	75	23.29
Post Graduated Level	2	0.62
Marital Status		
Single	52	12.29
Married	349	82.51
Separated	22	5.20
Number of Family Members		
<5	126	29.79
≥ 5	297	70.21
Mean (SD)	5.41(1.88)	
Median (Min: Max)	1(1:13)	
Involved Occupation		
Yes	319	75.41
No	104	24.59
Main Occupation (n=319)		
Farmer	121	37.93
Own Business	52	16.3

Characteristics	Frequency (n)	Percentage (%)
Labour	19	5.96
Civil Service	26	8.15
Private Service	62	19.44
Housewife	20	6.27
Student	19	5.96
Economically Active Family Members		
<3	305	72.10
≥3	118	27.90
Mean (SD)	2.10(0.99)	
Median (Min: Max)	2(1:8)	
Monthly Average Income (NPR) (n=281)		
<15000	61	21.71
15000-25000	78	27.76
25001-50000	97	34.52
>50000	45	16.01
Mean (SD)	30873.67(34449.38)	
Median (Min: Max)	25000(2000:350000)	
Monthly Average Family Income (NPR)		
<25000	64	15.13
25000-50000	123	29.08
50001-75000	120	28.37
>75000	116	27.42
Mean (SD)	65137.12(72382.12)	
Median (Min: Max)	50000(2000:100000)	

Most of the participants (98.82%) heard about the Health Insurance (HI) scheme. Source of information was mainly from health insurance agent (60.53%), and 29.90% of participants got the information from family members and relatives. About one third (30.73%) of participant got treatment for NCD under HI. Among participants, 98.35% were aware about

health checkup facilities available under HI, 97.64% were aware about free medicine facility, 96.22% were aware about laboratory test, 95.51% were aware about X-ray and video X-ray, 92.20% were aware about CT scan /MRI, 81.32% were awarded about surgery facility and 78.96% were aware about Hospital admission and bed charge (Table 2).

Table 2: Health insurance awareness among the study population (n=423)

Characteristics	Frequency (n)	Percentage (%)
Heard about the HI scheme		
Yes	418	98.82
No	5	1.18
Source of information*		
Family/Relatives	125	29.90
Neighbour's/Friends	111	26.56
Health Worker	103	24.64
Radio/FM	48	11.48
Social media	24	5.74
Health Insurance Agent	253	60.53
Disease treated under HI		

Characteristics	Frequency (n)	Percentage (%)
NCD	130	30.73
All Types	82	19.39
All except Dental and derma	64	15.13
Investigation (lab, radio)	8	1.89
Eye, ENT, Heart, Kidney, Gastro, Neurology, Ortho	24	5.67
Investigation, Surgery	10	2.36
General, Check-up, Medicine, Flu, Fever, Injury	40	9.46
ER, Investigation, Medicine	4	0.95
Dental, Derma, Ortho, ICU	52	12.29
Don't Know	9	2.13
Facilities Available Under HI*		
Health Check up	416	98.35
Laboratory Testing	407	96.22
X-ray/ Video X-ray	404	95.51
CT Scan/MRI	390	92.20
Free Medicine	413	97.64
Surgery	344	81.32
Hospital Admission/Bed Charge	334	78.96
Financial Benefit Under HI Plan (NPR) (n=371)		
≤100,000	365	98.38
>100,000	6	1.62
Mean (SD)	100997.3 (10,310.19)	
Median (Min: Max)	100,000 (100,000:250,000)	
Cost initially for registration HI		
Yes	379	89.60
No	44	10.40
Go for registration of HI		
Hospital	8	1.89
Ward Office	123	29.08
Women's health volunteer	1	0.24
Health insurance agent	289	68.32
Health post	2	0.47
Go to get HI service initially		
Hospital/DH	373	88.18
Primary Point	43	10.17
Government Hospital	1	0.24
District Hospital	2	0.47
Khwopo Hospital	1	0.24
Health Post	3	0.70

Note: * Multiple Responses

The highest level of satisfaction was observed in the access and convenience domain, with a mean score of 14.52 and SD 1.71. Technical quality domain of patient satisfaction means score was 11.23 and SD 1.74, followed by communication domain

with mean score of 6.86 and SD 1.06. Financial aspects domain mean score was 6.46 and SD 1.02. The lowest level of satisfaction was observed in the interpersonal manner domain of patient satisfaction with mean score 5.84 and SD 0.74. The mean

score of overall satisfaction was 57.82 (± 3.71).

The language used in the analysis focuses on describing the levels of satisfaction observed in each domain based on the mean scores. It

highlights the domains with the highest and lowest levels of satisfaction, providing an overview of the insured patients' perceptions of various aspects of their healthcare experience (Table 3).

Table 3: Satisfaction Domain (n=423)

Satisfaction domain	Mean of each domain	Standard deviation
General Satisfaction (Item 3 + 17)	6.82	0.98
Technical Quality (Item 2 + 4 + 6 + 14)	11.23	1.74
Interpersonal Manner (Item 10 + 11)	5.84	0.74
Communication (Item 1 + 13)	6.86	1.06
Financial Aspects (Item 5 + 7)	6.46	1.02
Time Spent with Doctor (Item 12 + 15)	6.27	1.05
Accessibility and Convenience (Item 8 + 9 + 16 + 18)	14.52	1.71
Overall Satisfaction Score	57.82	3.71

The total Patient Satisfaction Question (PSQ-18) scores ranged from 21 to 90 points, the mean score being 57.82 and SD 3.71. Among them, 26.71% of the patients satisfied (66 to

90 points), 71.87% of them moderately satisfied (42 to 65 points) and 1.42% of patient poorly satisfied (0 to 41 points) with HI (Table 4).

Table 4: Satisfaction score (n=423)

Satisfaction score	Frequency (n)	Percentage (%)
Poor (≤ 41)	6	1.42
Medium (42-65)	304	71.87
Good (≥ 66)	113	26.71

4. Discussion

In our setting, instead of healthcare financing, health insurance might be another alternative for financial risk protection especially for the poor and vulnerable people. Health insurance can be implemented as part of health reform programmes and strategies aimed towards providing effective and efficient healthcare for citizens [8].

In this study, nearly all participants (98%) had heard about the health insurance scheme, with health insurance agents being the primary source of information for 60.53% of respondents. Significant proportions (98%) were aware of the health check-up, free medicine, and laboratory test facilities available under health insurance. Over 30% of participants received treatment for non-communicable diseases (NCDs) under health insurance. However, according to the study

conducted in Bhaktapur municipality in 2020, good awareness of social health insurance scheme was found among 335 (87.2) participants. 99% of the participants showed the importance of social health insurance [9], however awareness level has been significantly increased in our current study in compared to that study. A study conducted in India found that awareness was one of the important factors in social scheme, where most of the participants (67.2%) were aware about Rajiv Gandhi Jeevandayee Arogya Yojana (RGJAY) scheme [10].

This study assessed patient satisfaction across various domains, including general satisfaction, technical quality, interpersonal manner, communication, financial aspects, and time spent with the doctor, and accessibility and convenience. The highest satisfaction was observed in the access and convenience domain, while the lowest was in the interpersonal manner domain. However, the satisfaction rate regarding HI was lower than a study conducted in Nigeria where 75.5% of the respondents were satisfied with the quality of health care provided at the national health insurance service (NHIS) [11]. Another study also indicated that higher satisfaction rate where more than half of the participants rated as high for the satisfaction

[12]. However, this study finding was in line with a study conducted to assess satisfaction over services provided by RGJAY scheme, [10]. Nevertheless, time trends indicate satisfaction with the national health insurance service is increasing although the of improvement varies by the domain [13]. These suboptimal satisfaction level might be determined by occupation, residence, laboratory and referral services, immediate care, and office opening time, time interval to use benefit packages, premium amount, and situation of enrolment [14]. In summary, the study provides valuable insights into the socio-demographic characteristics, health insurance awareness, and patient satisfaction levels among the study population. These findings underscore the importance of addressing various domains of satisfaction to enhance overall satisfaction and improve healthcare services.

5. Conclusion

The study reveals comprehensive awareness of the health insurance scheme among participants, predominantly sourced through health insurance agents. Moreover, the findings highlight a notable utilization of health services, particularly for non-communicable diseases, under this scheme. Access and convenience scored highest in

satisfaction, whereas interpersonal manner emerged as an area for improvement. The study underscores the significance of addressing these satisfaction domains to optimize healthcare services and booster overall patient satisfaction levels. These insights are crucial for refining policies and practices aimed at enhancing healthcare delivery and ensuring patient-centred care.

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Author contributions

PA: Conceptualization, data curation, formal analysis, methodology, writing original draft, writing review and editing. A KC: Methodology, supervision, writing original draft, writing review and editing.

Declaration

Ethics approval and consent to participate

The study acquired approval from Institutional Review Committee of Kathmandu University School of Medical Sciences (IRC-KUSMS) with IRC-KUSMS Approval No. 63/23. For the hospital side, the permission was obtained from the head of the department of Dhulikhel Hospital.

Competing interests

We declared that we have no competing interests

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