

Satisfaction among the Insured and the Uninsured Patients visiting for OPD services in various health facilities of Kaski

*Dipendra Kumar Yadav, PhD¹**

Binod Poudel Kshetri¹, Prabin Sharma¹

¹School of Health and Allied Sciences, Faculty of Health Sciences, Pokhara University, Nepal

**Correspondence Email: dipendrayadvph@gmail.com*

Abstract

Health insurance is the process of financial protection against health-related poverty and catastrophic health care cost. Satisfaction of the patients is the perception towards services they get from the health institution. This study aims to assess the satisfaction level and factors associated with it among the insured and the uninsured patients visiting the OPD services in the health facilities of Kaski.

Cross-sectional analytical study was conducted using purposive sampling technique. Data was collected through Face-to-face interview among 258 participants (107 Insured and 151 Uninsured) while EPI DATA and SPSS were used for the data entry and analysis respectively. Ethical approval was obtained from the institutional review committee of Pokhara University and respective health facilities and consent from each participant was taken.

Insured and uninsured participants were 41.5% and 58.5% respectively. 52.3% of insured and 49% of uninsured patients were female. Among the 107 insured participants, 74.8% participants visited for the first time and 18.7% for follow up. Educational status and SHI premium affordability were associated with satisfaction of the insured. Waiting time was associated with satisfaction among the uninsured participants. Waiting time, time provided

doctors related availability of medicines related to lower level of satisfaction in both participants. Majority of the insured (83.2%) and uninsured (84.8%) participants were satisfied.

The study shows overall satisfaction to be good in both insured and uninsured participants; however, it is suggested to improve the health service-related factors like waiting time; time provided by the doctors and the awareness on policy among the patients for further improvement of the program in Nepalese context.

Keywords: Health Care Utilization, Health Financing, Health Insurance, OPD Services, Satisfaction.

1. Introduction

Patient Satisfaction is the performance measure of health care (Sarker et al., 2018). Health insurance is the process of financial protection against health-related poverty and considered as a sustainable way of financing for health and preparedness for catastrophic health care cost during receiving health services.^[2]

Over 150 million people face catastrophic health expenditures each year worldwide and low-income countries face considerable challenges in financing healthcare.(Badacho, Tushune, Ejigu, & Berheto, 2016) Out of Pocket Expenditure (OPE) represents around 72 percent of total health-care costs in Nepal.(M et al., 2014) Health insurance industry in Nepal has been in existence for a long time, but coverage is still low, and there were only a few successful HI models.(Ranabhat, Kim, Singh, & Park, 2017) A study shows higher proportion of insured persons satisfied with waiting time compared to uninsured (21% vs. 19%) and at laboratory/x-ray department (27% vs. 22%) (Hotchkiss, Rous, Karmacharya, & Sangraula, 1998). More than half of insured clients were dissatisfied with services of providers in Ghana.(Badu, Agyei-Baffour, Ofori Acheampong, Opoku, & Addai-Donkor, 2019) The insurance reduced average proportion of out-of-pocket expenses after reimbursement from basic social health schemes by about 10% and 56.2 million people received subsidies to pay for their social health insurance premiums.(Fang, Eggleston, Hanson, & Wu, 2019) Factors such as benefit package of insurance, willingness to pay higher premium, and perceived discrimination were significantly associated with poor satisfaction with health services and knowledge on insurance, willingness

to pay, exposure to the media (the radio/FM, TV, HB) appear to be the positive predictors for enrolment.(Acharya, Devkota, & Wagle, 2019; Badu et al., 2019) WHO's global overview of health insurance revealed weak conceptual framework of CBHI's integration in national policy and poor organizational designs and performances.(Ko, Kim, Yoon, & Kim, 2018) Greater job satisfaction among physicians is positively associated with positive relationships between doctors and patients and increases patient satisfaction.(Kim, Park, & Hahm, 2012) This study was intended to assess the level of satisfaction and factor associated to it among the insured and the uninsured patients visiting the OPD services in selected health facilities of Kaski which is expected to serve as the future reference point to implement potential quality improvement initiatives of health insurance program in similar context of Nepal.

2. METHODS

A cross-sectional analytical study was conducted in Kaski district of Nepal from July to December in 2019. The patients visiting the OPD services in health facility of Kaski providing services under SHI scheme were the study population and the sample size was calculated using the Daniel's formula,

$$n = (Z_{\alpha}^2 pq) / d^2$$

Where, n= sample size, Z= value of standard normal distribution in 1.96 level of significant with 95% confidence level, p= Proportion= 0.42 (the satisfaction of both insured and uninsured service users from the study of Ghana), q = (1- p) = (1- 0.42) = 0.58 and d = desirable error 0.05 (5% margin of error). The desired sample size was 258.

Among 9 health facilities providing the services under SHI policy in Kaski district, one third i.e. three health facilities were selected randomly among them. Proportionate sample size from each selected health facility was calculated considering the average monthly patient flow from all three-health facilities.

Ethical clearance was taken from the Institutional Review Committee of Pokhara University. While the permission was taken from different hospitals, Shishuwa Hospital, Gandaki Medical College and Matrishishu Miteri Hospital for the data collection. Obtaining the written informed consent detailed information about study purpose was given to all participants before starting the interview and confidentiality of the information was maintained throughout the study. The

data was collected consecutively till it meets the desired sample from the respective health facilities. Mentally abnormal and who refused to participate in the study were excluded. Face to face interview was done using questionnaires as a tool for collecting the information. Tools in both English and Nepali language were developed after extensive literature reviews and the reliability was ensured by pretesting the tool among 10% of the estimated sample size from Himalayan Eye Hospital.

Data was entered and analysed using EpiData and SPSS software respectively. The satisfaction status of the participants was assessed through yes and no statement of questionnaire and detail service level satisfaction was measured through 4-points Likert scale. Univariate analysis by using a frequency table was performed for descriptive statistics (frequency and percentages). Frequency tables were generated for categorical variables, while median, interquartile range and minimum-maximum were calculated for continuous variables. For bivariate analysis, chi-square test was performed for testing the existing significant association between satisfaction and selected independent variables at 95% level of confidence.

3. RESULTS

3.1 Socio-demographic characteristics of respondents

Out of 258 participants, female participants were slightly more than male i.e 50.4% while 33.5% of participants were belonging to age group 15-30 years and 56.5% were from upper caste. 55.8% of participants belongs to nuclear family and more than half (69.4%) were from urban settings. 37.2% of participants were having basic education. (Table 1)

Table 1: Sociodemographic characteristics of respondents

Variables	Insured	Uninsured	Total
	Frequency (percentage)	Frequency (percentage)	n (%)
	107(41.5)	151(58.1)	258
Gender			
Male	51(47.7)	77(51)	128(49.6)
Female	56(52.3)	74(49)	130(50.4)
Age			
15- 30	37(34.6)	49(32.5)	86(33.5)

Variables	Insured	Uninsured	Total
	Frequency (percentage)	Frequency (percentage)	n (%)
30 – 45	28(26.2)	54(35.8)	82(31.2)
45 – 60	27(25.2)	39(25.8)	66(23.8)
60 above	15(14.0)	9(6.0)	24(11.5)
Family type			
Nuclear	54(50.5)	90(59.6)	144(55.8)
Extended	53(49.5)	61(40.6)	114(44.2)
Residency			
Rural	17(15.9)	43(28.5)	60(23.3)
Urban	90(84.1)	108(71.5)	198(76.74)
Educational status			
Illiterate	12(11.2)	41(27.2)	53(20.5)
Informal	8(7.5)	12(7.9)	20(7.8)
Basic	41(38.3)	55(36.4)	96(37.2)
Secondary	33(30.8)	37(24.5)	70(27.1)
Bachelors	13(12.1)	6(4.0)	19(7.4)
Marital status			
Married	85(79.4)	110(72.8)	195(75.6)
Single	22(20.6)	41(27.2)	63(24.4)
Ethnicity			
Upper caste	72(67.3)	74(49.1)	146(56.5)
Dalit	8(7.5)	34(22.5)	42(16.3)
Relatively disadvantaged Janajati	11(10.3)	12(7.9)	23(9.0)
Disadvantaged Janajati	16(15.0)	31(20.5)	42(18.2)
Monthly income (NRs)			
≤25000	28(26.2)	89(58.9)	117(45.3)
>25000	79(73.8)	62(41.1)	141(54.7)

3.2 Health service-related information of respondents

74.8% among 107 insured and 88.1% among uninsured had visited health facilities for the first time for service utilization. Almost half (50.8%) of participants reach a health facility within half an hour while 60.7% of insured receive service within one hour and 45.7% of uninsured need to wait for more than one hour to receive service. It was found that most of the participants

(78.7%) were provided with more than 5 minutes by doctor irrespective of their insured status. 93% of participants reported that there was availability of prescribed medicine at the hospital. (Table 2)

Table 2: Health service-related information of respondents

Variables	Insured	Uninsured	Total
	Frequency (percentage)	Frequency (percentage)	n (%)
	107(41.5)	151(58.5)	258
Type of visit			
First	80(74.8)	133(88.1)	213(82.6)
Referral	7(6.5)	5(3.3)	12(4.7)
Follow up	20(18.7)	13(8.6)	33(12.8)
Time required to HF (in min)			
>30	36(33.6)	91(60.3)	127(49.2)
≤30	71(66.4)	60(39.7)	131(50.8)
	Mean: 36.07, Min: 5, Max: 150	Mean:65.43, Min:5, Max:240	
Time waited (in min)			
≤60	65(60.7)	82(54.3)	147(57)
>60	42(39.3)	69(45.7)	111(43)
	Mean:63.8, Min:5, Max:180	Mean:75.83, Min:5, Max:180	
Time provided by doctor (in min)			
≤5	17(15.9)	38(25.2)	55(21.3)
>5	90(84.1)	113(74.8)	203(78.7)
	Mean:8.51, Min:4, Max:20	Mean:9.01, Min:4, Max:25	
Is the medicine prescribed fully available in hospital			
Yes	99(92.5)	141(93.4)	240(93.0)
No	8(7.5)	10(6.6)	18(7.0)
Other services than doctors consultation			
Yes	77(72.0)	105(69.5)	182(70.5)
No	30(28.0)	46(30.5)	76(29.5)
Participated in Health program in your locality			
Yes	73(68.2)	36(23.8)	109(42.2)
No	34(31.8)	115(76.2)	149(57.8)
Health problem diagnosed before			
Yes	32(29.9)	33(21.9)	65(25.5)
No	75(70.1)	118(78.1)	193(74.8)

3.3 Satisfaction related information of respondents

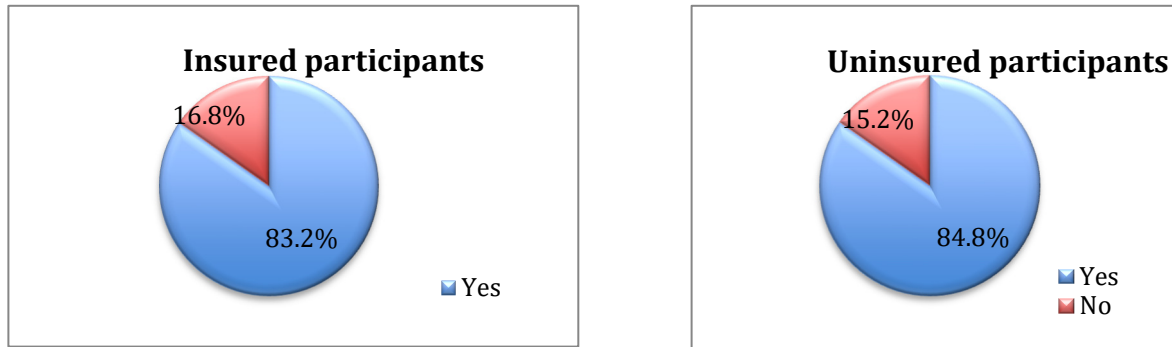


Figure 1: Satisfaction of insured and uninsured participants

Out of 258 participants in the study, with minimum difference, insured (83.2%) and uninsured (84.8%) were satisfied with the services at health facilities while the overall satisfaction was 84.1%.

Among 12 items regarding satisfaction, only 39.9% were satisfied with time to wait to receive service while 99.2% were satisfied with the attention towards patients by a service provider/doctor. Highest mean satisfaction score in both the insured and in uninsured was 3.71 in confidentiality and protection of personal information. Lowest mean satisfaction score in insured was 2.47 and in uninsured 2.21 in time to wait for their turn. (Table 3)

Table 3: Satisfaction score of the respondents on each item

S.N	Items	Insured		Uninsured		Total
		Mean satisfaction score±SD	Participants who are satisfied or strongly satisfied	Mean satisfaction score±SD	Percent of people who are satisfied or strongly satisfied	Participants who are satisfied or strongly satisfied
1	Registration system	3.22±0.69	91(85.0)	3.38±0.54	147(97.4)	238(92.2)
2	Time to wait for your turn	2.47±0.70	55(51.4)	2.21±0.67	48(31.8)	103(39.9)
3	Comfort	3.27±0.66	94(87.9)	3.11±0.66	127(84.1)	221(85.7)
4	Sufficient human resources	3.15±0.71	87(81.3)	3.25±0.65	133(88.1)	220(85.3)
5	Time given by a	2.78±0.58	74(69.2)	2.80±0.66	102(67.5)	176(68.2)

S.N	Items	Insured		Uninsured		Total
		Mean satisfaction score±SD	Participants who are satisfied or strongly satisfied	Mean satisfaction score±SD	Percent of people who are satisfied or strongly satisfied	Participants who are satisfied or strongly satisfied
	service provider/doctor					
6	Attention towards patients by a service provider/doctor	3.64±0.50	106(99.1)	3.50±0.51	150(99.3)	256(99.2)
7	Politeness and co-operation of service provider/doctor	2.98±0.72	78(72.9)	2.92±0.75	102(67.5)	180(69.8)
8	Availability of medicine	2.97±0.67	81(75.7)	3.32±0.58	142(94.0)	223(86.4)
9	Confidentiality and protection of personal information	3.71±0.47	106(99.1)	3.71±0.48	149(98.7)	255(98.9)
10	Privacy during treatment	3.43±0.61	100(93.5)	3.41±0.59	143(94.7)	243(94.2)
11	Environment of check-up room	3.15±0.65	91(85.0)	3.09±0.63	127(84.1)	218(84.5)
12	Laboratory services	2.87±0.45	88(82.2)	2.83±0.45	120(79.5)	208(80.6)

3.4 Association of the satisfaction with the different variables

3.4.1 Service-related variables

Insured participants who had availability of medicine while receiving service were 1.7 times more likely to be satisfied than the insured participants who did not receive medicine at health

facilities. Only the time to wait to visit the doctor was found to be associated with satisfaction of uninsured participants, (i.e. $p=0.013$, $\chi^2=6.230$). Increased waiting time (>60 minutes) was 3.325 times less satisfactory among the uninsured participants.

Table 4: Association of satisfaction with service-related variables among insured participants

Variables	Insured		Value χ	p-value	OR	95% CI
	Satisfaction					
	Yes	No				
	N (%)	N (%)				
	89(83.2)	18(16.8)				
Type of visit						
First	66(82.5)	14(17.5)	Fisher=0.504	1.000	0.820	0.423-1.709
Follow up/ referral	23(85.2)	4(14.8)				
Time read to reach HF (min)						
>30	28(77.8)	8(22.2)	1.131	0.288	0.574	0.368-1.920
≤30	61(85.9)	10(14.1)				
Time waited (min)						
≤60	56(86.2)	9(13.8)	1.048	0.306	1.697	0.422-1.609
>60	33(78.6)	9(21.4)				
Time provided by doctor (min)						
≤5	13(76.5)	4(23.5)	Fisher=0.311	0.480	0.599	1.062-2.539
>5	76(84.4)	14(15.6)				
Medicine availability in hospital						
Yes	83(83.8)	16(16.2)	Fisher=0.403	0.619	1.729	0.221-1.783
No	6(75.0)	2(25.0)				
Other service than doctors consultation						
Yes	61(79.2)	16(20.8)	3.073	0.080	0.272	0.168-1.452
No	28(93.3)	2(6.7)				
Participation in health related program						
Yes	61(83.6)	12(16.4)	0.024	0.876	1.089	0.748-1.784
No	28(82.4)	6(17.6)				
Health problem diagnosed before						
Yes	26(81.3)	6(18.8)	0.121	0.728	0.825	1.429-2.673
No	63(84.0)	12(16.0)				

p-value significance at <0.05

Table 5: Association of satisfaction with service-related variables among uninsured participants

Uninsured						
Variables	Satisfaction		Value χ^2	p-value	OR	95% CI
	Yes N (%)	No N (%)				
	128(84.76)	23(15.24)				
Type of visit						
First	112(84.2)	21(15.8)	Fisher=0.459	1.000	0.667	0.582-1.853
Follow up/ referral	16(88.9)	2(11.1)				
Time reqd to reach HF (min)						
>30	80(87.9)	11(12.1)	1.753	0.185	1.818	0.701-2.105
≤30	48(80.0)	12(20.0)				
Time waited (min)						
≤60	75(91.5)	7(8.5)	6.230	0.013*	3.235	0.206-1.839
>60	53(76.8)	16(23.2)				
Time provided by doctor (min)						
≤5	32(84.2)	6(15.8)	0.012	0.912	0.944	1.502-2.493
>5	96(85.0)	17(15.0)				
Medicine availability in hospital						
Yes	120(85.1)	21(14.9)	Fisher=0.469	0.650	1.429	0.637-2.004
No	8(80.0)	2(20.0)				
Other service than doctors consultation						
Yes	87(82.9)	18(17.9)	0.975	0.232	0.589	1.075-2.483
No	41(89.1)	5(10.9)				
Participation in health related program						
Yes	30(83.3)	6(16.3)	0.075	0.784	0.867	0.520-1.623
No	98(85.2)	17(14.8)				
Health problem diagnosed before						
Yes	29(87.9)	4(12.1)	0.316	0.574	1.391	0.892-2.037
No	99(83.9)	19(16.1)				

p-value significance at <0.05

4. DISCUSSION

The study conducted in Ghana suggests that the majority of the insured participants were dissatisfied with the overall quality of healthcare they received because of the long waiting hours, the poor attitude of health workers, benefit package of insurance, willingness to pay higher premium, perceived discrimination and the demand for payment of additional money

(Badu et al., 2019; Kodom, Owusu, & Kodom, 2019). In this study, 31.8% uninsured and 51.4% insured participants were satisfied with the waiting time. Longer waiting time at the health facility (patients mean = 2.14, $p < 0.0001$) is associated with the satisfaction on service utilization in the study by Alassan RK et al. (Alhassan et al., 2015). Among the uninsured participants, the higher satisfaction was seen among the patients who waited less than an hour to visit the doctor's consultation than who waited more than one hour ($p < 0.05$, $OR = 3.23$). Most of the clients (more than 80%) reported that the provider had explained the prescribed medicines properly in the previous study of Nepal (Sarker et al., 2018) which is similar to this study that shows the satisfaction of participants (86.4%) for medicines availability.

The insured participants having knowledge on change in policy are more likely to be satisfied than those of not having knowledge ($OR = 1.41$). The satisfaction was higher among the insured participants ($p < 0.05$, $OR = 5.230$) who responded to the premium amount of the insurance affordable than the unaffordable which might be due to the change in the premium amount after SHI policy amendment. Almost 90% of the insured participants had knowledge on the amount bear by SHI policy.

5. CONCLUSION

More than four out of every five participants representing both the insured and the uninsured participants were satisfied in OPD services. Higher satisfaction scores were seen in items like registration, sufficient human resource, attention toward patients by doctor, confidentiality and protection of information, privacy during check-up and environment of check-up room whereas lower satisfaction scores are observed in time provided by doctors, time to wait, availability of medicines. Further quality of services needs to be improved by concerned stakeholders for better compliance.

Reference

- Acharya, D., Devkota, B., & Wagle, B. P. (2019). Factors Associated to the Enrollment in Health Insurance: An Experience from Selected Districts of Nepal. *Asian Social Science*, 15(2), 90. doi: 10.5539/ass.v15n2p90
- Alhassan, R. K., Duku, S. O., Janssens, W., Nketiah-Amponsah, E., Spieker, N., Ostenberg, P. v., . . . Tobias, F. R. d. W. (2015). Comparison of Perceived and Technical Healthcare Quality in Primary Health Facilities: Implications for a Sustainable National Health Insurance Scheme in Ghana. *PLoS ONE US U7 - Journal Article*, 10(10), e0140109. doi: 10.1371/journal.pone.0140109
- Badacho, A. S., Tushune, K., Ejigu, Y., & Berheto, T. M. (2016). Household satisfaction with a community-based health insurance scheme in Ethiopia. *BMC Res Notes*, 9(1), 424. doi: 10.1186/s13104-016-2226-9
- Badu, E., Agyei-Baffour, P., Ofori Acheampong, I., Opoku, M. P., & Addai-Donkor, K. (2019). Perceived satisfaction with health services under National Health Insurance Scheme: Clients' perspectives. *Int J Health Plann Manage*, 34(1), e964-e975. doi: 10.1002/hpm.2711
- Fang, H., Eggleston, K., Hanson, K., & Wu, M. (2019). Enhancing financial protection under China's social health insurance to achieve universal health coverage. *BMJ*, 365, 12378. doi: 10.1136/bmj.12378
- Hotchkiss, D. R., Rous, J. J., Karmacharya, K., & Sangraula, P. (1998). Household health expenditures in Nepal: implications for health care financing reform. *Health policy and planning*, 13(4), 371-383.
- Kim, K. H., Park, E. C., & Hahm, M. I. (2012). The gap between physicians and the public in satisfaction with the National Health Insurance system in Korea. *J Korean Med Sci*, 27(6), 579-585. doi: 10.3346/jkms.2012.27.6.579
- Ko, H., Kim, H., Yoon, C. G., & Kim, C. Y. (2018). Social capital as a key determinant of willingness to join community-based health insurance: a household survey in Nepal. *Public Health*, 160, 52-61. doi: 10.1016/j.puhe.2018.03.033

- Kodom, M., Owusu, A. Y., & Kodom, P. N. B. (2019). Quality Healthcare Service Assessment under Ghana's National Health Insurance Scheme. *Journal of Asian and African Studies*, 54(4), 569-587. doi: 10.1177/0021909619827331
- M, D., B, D., Majumdera, A., Pandaa, P., Johna, D., & Korenc, R. (2014). Implementing a Participatory Model of Micro Health Insurance among Rural Poor with Evidence from Nepal. *The Geneva Papers*, 39, 280–303.
- Mitiku Kebede, K., & Geberetsadik, S. M. (2019). Household satisfaction with community-based health insurance scheme and associated factors in piloted Sheko district; Southwest Ethiopia. *PLoS One*, 14(5), e0216411. doi: 10.1371/journal.pone.0216411
- Mohammed, S., Sambo, M. N., & Dong, H. (2011). Understanding client satisfaction with a health insurance scheme in Nigeria: factors and enrollees experiences. *Health Res Policy Syst*, 9, 20. doi: 10.1186/1478-4505-9-20
- Ranabhat, C. L., Kim, C.-B., Singh, D. R., & Park, M. B. (2017). A comparative study on outcome of government and co-operative community-based health insurance in Nepal. *Front Public Health*, 5, 250.
- Sarker, A. R., Sultana, M., Ahmed, S., Mahumud, R. A., Morton, A., & Khan, J. A. M. (2018). Clients' Experience and Satisfaction of Utilizing Healthcare Services in a Community Based Health Insurance Program in Bangladesh. *Int J Environ Res Public Health*, 15(8). doi: 10.3390/ijerph15081637