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Awareness, Enrollment and Utilization of Health Insurance Scheme among Adults of Pokhara

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ABSTRACT

Introduction

Some illnesses can imposehuge economic burden on individuals and families. Expensive health care discourages people to use health services, generating prolonged or worsened health problems. Financial burden can be managed wisely paying small premium which would lessen stress in medical emergencies.The objective is to assess awareness, enrollment and utilization of health insurance scheme and find out association between awareness and enrollment with demographic variables.

Methods

A cross sectional study was conducted to assess awareness, enrollment and utilization of health insurance among adults of Phulbari-11, Pokhara. Study was conductedfrom June 2019 – August 2019 among 153 adult using convenient sampling. Permissionwas obtained from Institutional Review Committee, Manipal and verbal informed consent was taken from respondents prior todata collection. Data was analyzed using descriptive and inferential statistics using Statistical Package for Social Sciences (SPSS) version 18.0.

Results

About 45.1% were awareabout health insuranceand 40% had enrolled in it. Among them, more than 2/3rd (69%) had procured service at least once.Individual awareness wasstatistically significant with ethnicity. Enrollment in health insurance is significantly associated with age, ethnicity, marital status,history of chronic illness, family history of chronic illness and awarenesswith 95% CI at p value ≤0.05.

Conclusions

Individual awareness, enrollment and utilization of scheme are less.So, there is strong necessity to raiseawareness level, convincing them to enroll in any type of scheme based on their ability to pay, ensuring proper utilization of health care after getting enrolled by proactively educating community people.

Keywords: awareness; enrollment; health insurance; utilization.

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INTRODUCTION

Some type of illnesses can impose a huge economic burden on individuals and families.[1] Expensive health care discourages people to use health services, generating prolonged or worsened health problems particularly among the poor population.[2] Approximately 150 million people suffer from financial burden each year due to health care payments, and about 100 million are pushed into poverty.[3] Most health care in Nepal is paid out-of-pocket often incurring significant portion of the income of individual household leading to catastrophic health expenditure. Previous studies in Nepal showed that, 13.8% of the households had experienced catastrophic expenditure on health.[4] Protecting people from appalling health care expenses thereby preventing people from dwindling into poverty trap has been a topic of discussion in Nepal in recent times.[5] So the objective of study is to assess awareness, enrollment and utilization of health insurance and find out the association between awareness and enrollment with demographic variables.

METHODS

A cross sectional study was conducted to assess the awareness, enrollment and utilization of health insurance scheme from adults of Phulbari -11, Pokhara, Nepal from 1st June – 30th August 2019.

The sample size for the study was calculated using formula z^2pq/l^2 (taking p as 75% reference from a study of Bangalore, India[6] and l as allowable error 7%) which accounts to be 153. Non-probability convenient sampling technique was applied to collect the sample from that specific ward. The questionnaire/ Performa used comprise of 4 sections. Sections 1 deal with socio-demographic variable, section 2 evaluate the awareness, 3 assess enrollment and 4 estimate the utilization of health service. Section 2 which assess the awareness of health insurance consists of 25 items and is categorized based on the mean score as Yes (21 - 25) and No (0 – 20).

Logical sequence of questionnaire was maintained and checked for content validity. As per the suggestion of the subject experts and literature review, necessary modifications were made in the tool. Pretesting was done on 10% of the study population in Phulbari-11 i.e. 15 and Crohnbach alpha was calculated to checked the reliability of the tool which was found to be 0.75. The data of the pretesting was excluded from the main study.

The data was collected by door-to-door survey via face-to-face interview using a semi-structured questionnaire. Individual of age ≥18 years and were willing to participate in the study were included. The households that were locked and where the age criteria were not fulfilled were excluded. An individual was taken from each house. On an average, 14 respondents were taken every day for 2 weeks.

Permission to conduct the study was obtained from Institutional Review Committee, Manipal Teaching Hospital, Pokhara, Nepal. Verbal informed consent was taken from the respondents prior to data collection. Confidentiality and anonymity was maintained by removing personal identifiers and not disclosing information to anyone except for research purpose. Respondents dignity was maintained by giving right to discontinue from the study at any time.

After collecting, the data was checked for completeness and accuracy and entered in MS excel and analyzed by SPSS (statistical package for social sciences) version 18. The data was presented in mean, frequency distribution, percentage and standard deviation. The distribution of the variables was assessed

using the Kolmogorov-Smirnov test, and Levene's test was performed to assess variance equality. Inferential statistics like chi square test and t-test were used to find the association between awareness and enrollment with socio-demographic variables. Differences were considered statistically significant at 95% confidence interval i.e. p value <0.05.

RESULTS

Nearly 61% of the respondents were young adult (18 – 35 years). About 2/3rd (66%) of the respondents were female. Majority of the respondents (82.4%) had received some form of formal education. More than 3/4th (75.8%) of the respondents had no history of chronic illness (Table 1)

Table 1. Baseline characteristics of the respondents. (n = 153)

Socio-demographic variables	Frequency(f)	Percentage (%)
Age(years)		
18-35	93	60.8
> 35	60	39.2
Mean ±SD	34.76 ±10.837	
Gender		
Female	101	66
Male	52	34
Ethnicity		
Brahmin/Chhetri	73	13.1
Janajati	60	39.2
Dalit	20	47.7
Religion		
Hinduism	136	88.9
Others (Buddhist/Christian/Muslim)	17	11.1
Marital status		
Married	128	83.7
Others (Unmarried/widow/divorced)	25	16.3
Educational level		
Formal education	126	82.4
Informal/Illiterate	27	17.7
Occupational status		
Employed	81	52.9
Unemployed	72	47.1
Type of family		
Nuclear	100	65.4
Joint/Extended	53	34.6
History of chronic illness		
Yes	37	24.2
No	116	75.8
Family history of chronic illness		
Yes	35	22.9
No	118	77.1

Less than half (45.1%) of the respondents were aware about health insurance. About 40% of the respondents had enrolled in the health insurance scheme. Among them, more than 2/3rd (69%) of the respondents had procured health insurance service at least once (Table 2).

Table 2. Awareness, enrollment and utilization of health insurance. (n = 153)

Variables	Frequency (%)	Percentage (%)
Awareness		
Yes	69	45.1
No	84	54.9
Enrollment(Insured) in health insurance		
Yes	61	39.9
No	92	60.1
Reason to purchase the insurance(n = 61)		
To meet out medical expenses	55	90.2
Employee benefit	6	9.8
Source of information on health insurance (n = 61)		
Health personnel	53	86.9
Others(Relatives/ friends/media)	8	13.1
Type of health insurance procured (n= 61)		
Government	54	88.5
Private	7	11.5
Utilization of health service (n = 61)		
Yes	39	69.4
No	22	30.6

There was significant association between awareness of the health insurance and ethnicity of the respondents at p value 0.032. Whereas, other variables like age, gender, religion, education, occupation, type of family, history of chronic illness and family history of chronic illness were not significantly associated with the awareness of the respondents (Table 3).

Table 3. Association of socio-demographic variables with awareness. (n = 153)

Variables	Awareness		p value
	Yes (%)	No (%)	
Age(in years)	34.58 ± 10.957	34.91 ±10.806	0.852
Gender			
Female	56(55.5)	45(45.5)	0.851
Male	28(53.8)	24(46.2)	
Ethnicity			
Dalit	13(65.0)	7(35.0)	
Janajati	39(65.0)	21(35.0)	**0.032#**
Brahmin/Chhetri	32(43.8)	41(56.2)	
Religion			
Hinduism	73(53.7)	63(46.3)	0.389
Others*	11(64.7)	6(35.3)	
Marital status			
Married	67(52.3)	61(47.7)	0.150
Others**	17(68.0)	8(32.0)	
Educational level			
Formal education	69(54.8)	57(45.2)	0.940
Informal/Illiterate	15(55.6)	12(44.4)	
Occupation			
Employed	43(53.1)	38(46.9)	0.632
Unemployed	41(56.9)	31(43.1)	
Type of family			
Nuclear family	51(50.5)	50(49.5)	0.183
Joint/Extended family	33(63.5)	19(36.5)	
History of chronic illness			
Yes	20(54.1)	17(45.9)	0.905
No	64(55.2)	52(44.8)	
Family history of chronic illness			
Yes	18(50)	18(50)	
No	66(56.4)	51(43.6)	0.499

* Buddhist/Christian/Muslim

Number in parenthesis indicate percentage and p value <0.05 indicates significance

Enrollment in the health insurance is significantly associated with age, ethnicity, marital status, history of chronic illness, family history of chronic illness and awareness on the health insurance scheme at 95% CI i.e. p value < 0.05 (Table 4).

Table 4. Association of socio-demographic variables with enrollment. (n = 153)

Variables	Enrollment (Insured)		p value	COR (95% CI)
	Yes	No		
Age(in years)	38.11± 10.825	32.54 ± 10.31	**0.002**	**5.57(2.139 – 9.00)**
Gender				
Female	38(37.6)	63(62.4)	0.430	1.315(0.667 – 2.594)
Male	23(44.2)	29(55.8)		Ref.
Ethnicity				
Dalit	6(30)	14(70)		**3.34(1.154 – 9.69)**
Janajati	12(20)	48(80)	**<0.001**	**5.733(2.61 – 12.58)**
Brahmin/Chhetri	43(58.9)	30(41.1)		**Ref.**
Marital status				
Married	58(45.3)	70(54.7)	**0.002**	**6.076(1.73 – 21.32)**
Others*	3(12)	22(88)		**Ref.**
Educational level				
Formal	54(42.9)	72(57.1)	0.108	0.462(0.184 – 1.183)
Informal/Illiterate	7(25.9)	20(74.1)		Ref.
Occupation				
Employed	33(40.7)	48(59.3)	0.815	0.926(0.484 – 1.771)
Unemployed	28(38.9)	44(61.1)		Ref.
Type of family				
Nuclear family	36(35.6)	64(64.0)	0.181	1.587(0.807 – 3.122)
Joint/Extended	25(47.2)	28(52.8)		Ref.
History of chronic illness				
Yes	20(54.1)	17(45.9)		**2.152(1.016 – 4.557)**
No	41(35.3)	75(64.7)	**0.043**	**Ref.**
Family history of chronic illness				
Yes	21(58.3)	15(41.7)	**0.017**	**2.50(1.160 – 5.404)**
No	40(34.2)	77(65.8)		**Ref.**
Awareness of health insurance				
Yes	46(52.9)	41(47.1)	**<0.001**	**3.815(1.869 – 7.784)**
No	15(22.7)	51(77.3)		**Ref.**

* Unmarried/widow/divorced

Number in parenthesis indicate percentage, p value and COR in bold indicates significance

DISCUSSION

The mean awareness score was found to be 19.81 with the outcome of 45.1% aware on the health insurance. The finding was similar to the study conducted in South Africa,[7] Manipur, India,[8] Limpopo Province[9] and Central Karnataka, India[10] where awareness on health insurance were 52.4%, 62.7%, 64%, and 65.7% respectively. Whereas, dissimilar findings were obtained in few other studies exhibiting high awareness of 75.7%,[6] 84.4%[11] and 98.2%.[12] While, the study conducted by Adewole Da et al[13] and Aderibigbe S et al[14] showed lower percentage i.e. 6.4% and 13% respectively

were aware about health insurance. This shows that more than half of the respondents were unaware about health insurance scheme which is a growing concern and need to be addressed by all government and non-government agencies working in insurance.

The current study revealed that 39.9% had enrolled in health insurance which is similar to study done in Maharastra (38.42%),[15] Karnataka(45.5%)[10] and rural South India(46.9%).[16] The enrollment rates in Maharashtra are quoted to be lower with variation across and within the districts.[17] Study from Nigeria[14] and Manipur, India[8] showed lesser percentage with 6.7% and 9.5% respectively enrolled themselves in insurance scheme. Since the awareness about health insurance is low this may have resulted in the fewer enrollments in the scheme as both awareness and enrollment are associated.

Among those who enrolled in health insurance, 69.4% had utilized health service which is analogous to study conducted in Nigeria where 70.1% of the participants have utilized the health insurance at least once.[12] A study conducted in Delhi[18] showed overall utilization of health insurance for health need is 45%. The fact behind this may be explained as the individual get enrolled in the service paying certain amount of premium would have encouraged them to utilize the service.

Majority of the respondents (88.5%) had procured government health insurance and 11.5% procured private health insurance which is similar to the study conducted in Uttar Pradesh showing 80% of respondents believed in governmental health insurance agencies rather than private insurance companies.[19] Indumathi K et al[6] also revealed comparable findings with 95.5% had government insurance and 7.5% of them had private health insurance. Whereas, study conducted in Karnataka showed 35.06% procured private health insurance.[11] As the government health insurance scheme has less premium and beneficiaries for the entire family as compared to other type which might have attracted people to procure this scheme.

The current study showed that there is significant association between ethnicity/caste with awareness on health insurance which is line with study from Maharastra.[20] Although there is no significant association between awareness with age, gender, type of family, religion, marital status, history of chronic illness and family history of chronic illness which is identical to the study conducted among rural population in Bangalore.[6] This finding is also in line with study by Temuru J et al.[19] However contradictory outcome was assimilated from the study of Nigeria suggesting education and gender were significant factors influencing the knowledge and awareness of respondents. [21]

Enrollment in health insurance is also significantly associated with age and ethnicity which is analogous to study conducted in Maharastra.[15] There is a significant association between awareness on health insurance with the enrollment in the scheme with COR(95% CI); 3.815(1.869 – 7.784) however study conducted in South India[16] revealed no significant association between awareness on health insurance and being insured. This showed that awareness on the health insurance can play a vital role to raise the percentage enrollment in the health insurance scheme.

The current study showed that there is no association between enrollment with gender, educational level, occupation, monthly family income, type of family. Conversely, study conducted in South India showed male gender, type of family, affordability to pay premium and higher educational status was significantly associated with being insured insurance. Study by Netra et al showed divergent result exhibiting education, occupation and socio economic class is significantly associated with subscription of health insurance.[10]

The study limits the generalization of the findings due to convenient sampling technique and small sample size. Data collection was done during

office time so the respondents were mostly unemployed and self-employed women and the male respondents were less in number. People residing in that area were recently informed about health insurance by female community health volunteer, so the percentage of awareness on the scheme may have come up more than the actual.

CONCLUSIONS

Individual awareness and enrollment were poor. The utilization of the health care is also less among those enrolled population. So, there is strong necessity to raise awareness level, convincing them to enroll in any type of scheme based on their ability to pay, ensuring proper utilization of health care after getting enrolled by proactively educating community people. The study also highlighted the insured individual being more inclined towards government health insurance than private which may be because of its beneficial scheme. Thus it is a greater concern for the government as this scheme has started only few years back but its gaining popularity among the citizens.

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