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Editorial Note

Dear Readers,

The first issue of Journal of Insurance and Social Security (NJISS) was published in 2018 second issue in 2019 and the third issue is in your hand. The Editorial Board would like to express words of gratitude to all authors, reviewers, advisors and readers for their valuable contribution. In coming days too, we expect such invaluable support and encouragement from our valued personalities so that we will be able to publish the journal frequently maintaining standard of the journal with the international repute.

The third issue has incorporated six articles that have been selected out of the dozens of manuscripts. We state the words of gratefulness to all the contributors who showed affection and trust over the NJISS and sent these papers. The Editorial Board requests to all prospective contributors to upload their manuscripts following the general guidelines of the journal.

Current issue is also known as social health insurance issue since out of six articles, four are related to government run health insurance schemes while one is related to life insurance lapse and another one is related to insurance education.

Nepalese insurance industry can be divided under four segments: privately owned companies run commercial insurance, Social Security fund led social insurance, health insurance board led social health insurance and deposit and credit guarantee fund. The articles published in this issue cover the topics under the commercial insurance and social health insurance. The journal always welcomes the critical review papers on up-to-date subjects on any of the topics in the area of risk, insurance, social security, microfinance, pension, annuity and the related disciplines.

Prof. Fatta Bahadur KC

Editor-in- Chief

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Original research article

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Determinants of Self-Reported Illness: An Experience from Social Health Insurance Program in Nepal

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ABSTRACT

Even though the ultimate goal of social health insurance program is to increase the utilization of health services and reduce the health care expenditure, individuals in developing countries generally do not visit a healthcare provider or spend on healthcare unless they perceive themselves as ill. Thus, the determinants of such illness reporting could have practical significance in a setting, where the social health insurance program was first being implemented in Nepal.

Philosophically, this study follows a post-positivism or empiricism research paradigm. The ontological assumption of this study is a singular reality and regarding the epistemological assumption, this study considers an objective reality, a deductive method of quantitative inquiry. A cross-sectional survey was performed among 6480 individuals from 1048 households located in 26 wards of Kailali district after twenty-one months of the implementation of health insurance program in Nepal. The sample was selected in two stages, first being the selection of wards and second being the households. Data analyses were mainly based on chi-square test and logistic regression analysis.

The study revealed that out of total 6480 surveyed individuals, 1590 (24.5%) individuals reported illness and the most commonly self-reported illness was cold/cough/fever in the month prior to the survey. The logistic regression analysis revealed that a number of socioeconomic factors such as health insurance coverage, gender, education level, economic status and employment status are significant predictors of illness reporting. Being insured, household members were more likely to report illness compared to their counterparts (Odds ratio= 1.40, 95% Confidence Interval=1.24-1.59). Females were more likely to report illness compared to males. Members with secondary level of education were significantly less likely to have illnesses than the members with no formal education. Household members from higher household economic status and employed were significantly less likely to have an illness.

The findings from this study could inform policy in the ongoing national health insurance debate in Nepal and elsewhere. Since individuals having health insurance are more likely to report illness compared to uninsured, there is need to expand the health insurance program thought the country. Despite some methodological constraints, this study delivers new information on the occurrences of self-reported illnesses among the Nepalese population. This can help policy makers to formulate proper interventions to protect the poor from the financial burden associated with poor-health.

Keywords: Illness reporting, Health insurance, Poverty

1. INTRODUCTION

Illness is a health shock but it is perceived differently by individuals according to their various socioeconomic status. Ill health could reduce household investment in human capital, physical capital, and other consumptions that are critical to human well-being (Wang et al., 2006). Even small costs for common illnesses can be financially disastrous for poor households with no insurance coverage (Xu et al., 2003).

Poverty and ill-health are often correlated, creating a vicious circle (Wagstaff, 2002). Ill-health often intensifies poverty, especially in the absence of effective social health protection and poor people tend to have worse health than the better-off do (Gwatkin et al., 2007). Despite considerable improvements in the health sector, access to affordable and effective health care remains a problem in Nepal. For example, household health care expenditure in Nepal constitutes a large share (55.4%) of the total current health expenditure (Ministry of Health and

Population [MOHP], 2018). This indicates that financial burden on households due to health care is high in Nepal. Considerable progress in measuring the impact of ill-health on household welfare has been made in Nepal, such as expansion of health insurance coverage in the recent years. However, there are still knowledge gaps. Despite these initiatives, the country still faces significant challenges in scaling up health insurance schemes to ensure access to health services, especially for the poor, and prevent financial burden associated with illness-related healthcare costs. To develop appropriate policies to protect households against impoverishing effects of ill-health, there is a need of an understanding of the multiple and a complex pathway for the wellbeing of persons of poor health.

Though the ultimate aim of social health insurance program is to increase the utilization of health services and reduce the health care expenditure, individuals in developing countries generally do not visit a healthcare provider or spend on healthcare unless they perceive themselves as ill. Thus, it is difficult to assess the utilization of health services and to estimate health care expenditure for several reasons. First, individuals in developing countries generally do not visit a healthcare provider or spend much on healthcare unless they perceive themselves as either ill or injured (Rous & Hotchkiss, 2003). Second, expenditure is likely to be a function of the type of provider visited (Rous & Hotchkiss, 2003). Since the type of provider visited and expenditure are conditional upon the individual's illness reporting, this study tries to estimate the level of such illness reporting and its possible determinants.

In order to address the financial constraint in health services due to ill-health, the Government of Nepal has implemented the Social Health Insurance Program (SHIP) in 2016. However, the program has been facing many challenges and only small segments of the population are enrolled under Social Health Insurance (SHI) scheme (Pokharel & Silwal, 2018; World Bank, 2017). Despite the fact that the research pertaining to illness reporting, out of pocket health expenditure and utilization is sporadically observed in the past, limited research papers have been published with respect to SHI scheme, particularly, in Nepalese context. Moreover, there are substantial evidences that ill-health is a key cause of poverty especially in developing countries (Ir et al., 2010). However, available methods for measuring the impact of ill-health on household welfare display several shortcomings and new studies are thus needed (Ir et al., 2010; Ross & Vaughan, 1986). In the light of above discussion, in order to understand the prevalence of illness and its

potential determinants, this study was conducted in Kailali, where social health insurance program was first time implemented in Nepal, as a part of doctoral research project.

2. METHODS

2.1 A Brief Introduction of Social Health Insurance Program of Nepal

The Social Health Insurance Program (SHIP) is a social protection program of Government of Nepal, which aims to enable its citizens to access health care services without having a financial burden. The program expects to prevent people from falling into poverty due to health care costs. The SHIP is a family-based health insurance scheme initiated by the Social Health Security Development Committee (SHSDC). The program was first implemented in Kailali district of Nepal and it is currently at the stage of expansion.

2.2 Study Design and Setting

A cross-sectional household survey was conducted between November 2017 and January 2018 in Kailali district after 21 months of the implementation of SHIP in Nepal. Kailali is the district where SHIP was first implemented in Nepal. In Kailali, there are approximately 142 thousand households with an average family size of 5.44 (Central Bureau of Statistics [CBS], 2012). The district has significantly higher poverty level as compared to national average (34% versus 24%) (CBS/The World Bank, 2013).

2.3 Sample Size, Cluster Size and Number of Clusters

The sample size was calculated using United Nations (2008) applying multistage cluster sampling. Assuming 50% of proportion of success of a key indicator, 95% desired level of confidence, 5% margin of error, 3 as design effect, and 7.5% as non-response rate, the sample size was 1066 households. Normally, 50% is an optimum value for proportion of key success indicator. The value of design effect usually ranges from 1.5 to 4.5 (Shackman, 2001), so, an average value was assumed. Non-response rate of 5% to 10% is most common for household surveys especially in developing countries (United Nations, 2008). Thus, an average value of 5% and 10% was assumed.

The value of the design effect depends on cluster size and intra-class correlation coefficient(Ross, 2005). Assuming design effect as 3 and intra-class correlation coefficient as 0.05, the cluster size was 41. In practice, the value of intra-class correlation coefficient ranges from 0.05 to 0.50 (Ross, 2005). A higher value indicates more similarity within the individuals'

characteristic whereas smaller value indicates less similarity. Thus, less similarity has been assumed. Finally, using sample size as 1066 and dividing it by cluster size of 41, the number of clusters or wards was 26. However, only 1048 households were surveyed in this study, with a non-response rate of 1.7%.

2.4 Sampling Procedure

A two-stage cluster sampling design was employed. At the first stage, 26 wards comprising at least ten insured households from a total of 126 wards were randomly selected. The rationale behind selecting only wards comprising at least ten insured households was similar to the 2017 World Bank study regarding Nepal's SHIP (World Bank, 2017). Further, since Kailali had less than 5% of insurance enrollment, and as the main objective of the study was to find the effect of SHIP on health care expenditure, so wards with relatively higher number of enrollments were selected. At the second stage, 41 households were randomly sampled from each ward. In each ward, about 25% of the insured households were selected such that comparison in health expenditure was meaningful. In other words, the case-control ratio was approximately 1:3 and the design protocol was approved by Kathmandu University (KU). The information regarding ward level insurance enrollment was obtained from the local office, Social Health Security Development Committee (SHSDC), Kailali district. The households from each ward were selected across the radius of ward office as per the latest census of Nepal.

2.5 Questionnaire Design and Data Collection Procedures

An initial version of a structured survey questionnaire was developed based on an intensive review of previous related studies and similar surveys conducted in Nepal. The final version of the instrument was prepared after incorporation of comments and feedbacks from subject experts, field testing to the potential respondents, presenting the questionnaire to a group of experts and Ph.D. thesis supervisors, receiving suggestions from concerned ethical bodies and pilot testing the draft versions. Adopting these procedures, the instrument ensured reliability and all types of validity as well as contextualized it in Nepalese context.

The study considered the household head or the most knowledgeable adult in a selected household an eligible respondent. Seven enumerators were assigned in the fixed number wards. Supervision was insured by the principal investigator. Enumerators were given intensive training and they also had experiences of collecting the data of large-scale surveys. A simulation exercise

among the enumerators was conducted in order to minimize the plausible error. The respondents were informed about the purpose of the study and were assured about the confidentiality of their responses.

2.6 Variables

The dependent variable in this study is the illness reporting. The independent variables include different factors such as household and community as suggested by earlier research (Beogo et al., 2016; Masiye & Kaonga, 2016; Wang et al., 2012). Household economic status was constructed by summing all food as well as non-food expenditures and consumer durable items (Deaton & Zaidi, 2002).

2.7 Data Analysis

First, background characteristics of study participants and the percentage of self-reported illness have been presented by means of descriptive statistics. Second, bivariate analysis has been carried out between each of socio-demographic factors and illness reporting using chi-square test. Finally, logistic regression analysis was employed to find the determinants of illness reporting. Before logistic regression was applied, the multicollinearity among the independent variables was assessed and none were highly correlated. The fitted model displays the estimated adjusted odds ratios (AORs) along with 95% confidence interval (CI). Survey data was entered into Census and Survey Processing System (CSPro) version 7.0 software. Statistical analysis was performed with STATA 12.0 (StataCorp, 2012).

2.8 Ethical Approvals

The study was supported by the University Grants Commission of Nepal under Ph.D. Fellowship. Ethical clearance was obtained from the Nepal Health Research Council (the protocol registration number 398/2017) and Pokhara University Research Center, Nepal. The data collection approval was received from SHSDC, Nepal. The study was approved by Kathmandu University School of Education (KUSOED) as a part of Ph.D. research project.

3. RESULTS

3.1 Illness Reporting, Disease Types and Perceived Severity of Illness

Illness reporting was analyzed among the usual members in the household. Out of total 6480 surveyed household members, nearly one in four members (24.5%) reported that they were ill in the month prior to the survey (Table 1). If an illness was reported during the month prior to the

survey, the members were asked about the type of most recent reported illness and its severity. Each reported illness that had been diagnosed by an allopathic or ayurvedic doctor and the symptoms of an undiagnosed illness were coded according to a disease list that we based on the results of a previous study conducted in Nepal (Saito et al., 2014).

The most commonly self-reported illness in the month prior to the survey was cold/cough/fever followed by gastritis/abdominal pain. This result is consistent with the latest national survey, which found that cold/cough/fever was the most prevalent illness throughout the year in Nepal (CBS, 2011). Besides, the 2014 district health insurance assessment report also revealed the similar findings suggesting that cold and fever were the most commonly reported illness

Table 1. *Illness Reporting, Disease Types and Perceived Severity of Most Recent Illness*

Characteristics	**Number**	**Percent**
Illness reporting (n=6480 individuals)		
Yes	1590	24.5
No	4890	75.5
Self-reported diseases/symptoms type of most recent illness(n=1590)		
Cold/Cough/Fever	474	29.8
Gastritis/Abdominal pain	166	10.4
Arthritis/Appendicitis	136	8.6
Respiratory/Asthma	110	6.9
Skin disease	102	6.4
Headache/Migraine	74	4.7
Eye/Nose/Teeth (ENT)	71	4.5
Muscle/Bone/Paralysis	70	4.4
Anemia	55	3.5
Pressure	54	3.4
Stone/Hernia	45	2.8
Gynecological/Pregnancy	44	2.8
Diarrhoea	43	2.7
Heart disease	38	2.4
Injury	37	2.3
Diabetes	32	2.0
Other health problems	39	2.5
Perceived severity of most recent reported illness (n=1590)		
High severe	174	10.9
Severe	493	31.0
Little severe	680	42.8
Not severe	243	15.3

(KOICA-Nepal Health Insurance Support Project [NHISP], 2014). Diseases such as arthritis, respiratory problems were also most common in the study area. More than two-fifths (42%) of illnesses were perceived as severity or high severity category.

3.2 Illness Reporting by Individual Characteristics

Out of 6480 surveyed individuals, 1590 (24.5%) reported illness in the month prior to the survey. Table 2 shows that large disparities are apparent across the subgroups of household members, being ill in the month prior to the survey. Females were more likely to report illnesses and injuries compared to males, and the differences are significant using chi-square test ($p< 0.01$). Being household heads, respondents were no more statistically likely to report an illness.

The variable age showed a significant variation in the reported illness ($p<0.01$). For example, the proportion of reported illness was higher among individuals aged 60 or more and children under 5 years (44%, 40%) as compared to the individuals 5 to 59 years (21%). Individuals' education level showed large differentials in the reported illness with the highest among pre-schooling children (37%). The proportion of respondents being ill fell from 31% among those with no education to 18% among those with tertiary level of education ($p<0.01$).

With regard to marital status, the divorcee /separated individuals are more likely to report the illness as compared to the unmarried or currently married individuals and the differences are statistically significant using chi-square test at 1% level of significance. People not engaged in work were more likely to report illness than people with occupations. Students were less likely to report illness as compared to other occupational groupings. For example, only 18% of students reported that they were ill in the month prior to survey, whereas 26% of the individuals were sick among those who worked in the formal sector, and the relationship is statistically significant between occupation status and being sick during the past month at less than 1% level of significance as per the chi-square test.

Table 2. *Illness Reporting by Individual Characteristics in the Month Prior to the Survey*

Characteristics	**Number of cases in each category**	**Percent of illness**
Gender***		
Male	3207	21.7
Female	3273	27.3
Being head or not head		

Characteristics	Number of cases in each category	Percent of illness
Head	1048	25.9
Not head	5432	24.3
Age group in years***		
Less than 5 (Child)	446	39.9
5 to 59 (Neither child nor senior)	5507	21.4
60 or more (Senior)	527	44.1
Education level *** [a]		
No formal education	1892	31.1
Early childhood development	336	37.2
Primary	1270	21.7
Secondary	2076	20.9
Tertiary	906	18.4
Marital status*** [b]		
Unmarried	2914	21.7
Married	3347	25.8
Divorced/Separated	219	42.9
Occupation status*** [c]		
Not working	1952	31.0
Working in informal sector	2235	22.8
Student	1465	18.1
Working in formal sector	828	25.5
Total of each variable	6480	24.5

** **p< 0.01. **p< 0.05. *p< 0.10. p- value is based on Pearson's χ^2 statistic. a= Head's education if aged < 3 years. b= Unmarried if < 10 years. c= Head's occupation if aged < 10 years.*

3.3 Illness Reporting by Household Characteristics

Table 3 presents the illness reporting of household population according to their household characteristics. Individuals in households headed by females were statistically more likely to report illness than individuals in households headed by males (28% vs. 24%). The age of head did not show any significant association with the illness reporting of individual household member. Education level of household head showed a significant positive association with reporting illness in the month prior to the survey. The proportion of individuals reporting illness rose from 21% among those whose head had no education to 31% among those whose head had tertiary level education (p<0.01).

Table 3. *Illness Reporting by Household Characteristics in the Month Prior to the Survey*

Characteristics	Number of cases in each category	Percent of illness
Head's gender **		
Male	5838	24.2
Female	642	27.7
Head's age in years		
Less than 60 (Economically active)	5407	24.3
60 or more (Senior citizen)	1073	26.0
Head's education level ***		
No formal education	2756	21.0
Primary	1361	25.3
Secondary	1861	27.6
Tertiary	502	30.5
Head's occupation status ***		
Not working	621	27.5
Working, informal sector	4617	22.2
Working, formal sector	1242	31.6
Head's caste/ethnicity ***		
Tharu	3152	22.6
Brahmin/Chhetri	1876	30.9
Other castes	1452	25.1
Head's religion		
Hinduism	6110	24.5
Non-Hindu	370	25.9
Enrollment in health insurance ***		
Enrolled	1747	28.5
Not enrolled	4733	23.1
Family size***		
4 or less	1071	26.8
5 to 8	3628	26.0
9 or more	1781	20.2
Household economic status/Wealth index**		
1st quintile (Poorest)	964	25.1
2nd quintile (Poorer)	1145	26.1
3rd quintile (Middle)	1328	21.4
4th quintile (Richer)	1465	25.5
5th quintile (Richest)	1578	24.8
Total of each variable	6480	24.5

** **p< 0.01. **p< 0.05. *p< 0.10. p- value is based on Pearson's χ^2 statistic*

Individuals were more likely to report illness among those whose head worked in the formal sector as compared to those whose head worked only in the informal sector (32% vs. 22%). The illness reporting also varied according to occupation status of household heads. The proportions

of individuals reporting illness was highest among those whose heads were employed in modern sectors. Individuals whose heads were employed in informal sectors (such as agricultural sector, unskilled laborer) were least likely to report illness. With regard to caste/ethnicity, Brahmin / Chhetri were more likely to report illness compared to other ethnic groups. Religion of household head did not show any significant association with regard to reporting illness of individual household member.

Individuals were more likely to report illness if their household got enrolled in the health insurance program compared to those whose household was not enrolled in the health insurance program. The percentage of reported illness was 29% among those who were insured, whereas it was only 23% among those who were not insured, and the difference is statistically significant ($p<0.01$). Individuals from smaller family size were more likely to report illness compared to larger family size. Significant differentials were also found according to the economic status of households. Individuals who were from the second quintile group were more likely to report illness compared to the individuals from other quintile groups. Comparatively, poorer groups were more likely to report illness than wealthier groups.

3.4 Illness Reporting by Community Characteristics

Table 4 shows the distribution of reported illness of individuals according to the health service accessibility factors. Though not significant, higher proportions of urban individuals than of rural individuals reported illness in the month prior to the survey.

The health service accessibility factor revealed significant variation with reporting illness of individuals. Particularly, 27% of individuals reported illness among those whose distance to modern health care facilities was within half an hour, while it was only 21% if their distance to a health facility was more than half an hour. Similarly, accessibility in terms of access to motorable road also increases the likelihood of reporting illness. For example, 25% of individuals who had access to motorable road within 30 minutes reported illness, while it was only 17% among those who had access to motorable road more than 30 minutes.

Table 4. *Illness Reporting by Accessibility Factors in the Month Prior to the Survey*

Characteristics	**Number**	**Percent**
Urban/rural status		
Urban municipality	4758	24.8
Rural municipality	1722	23.8
Access to health facility ***		

Characteristics	Number	Percent
Within half an hour	4118	26.7
More than half an hour	2362	21.0
Access to motorable road ***		
Within half an hour	6303	24.8
More than half an hour	177	16.9
Total of each variable	6480	24.5

** **p< 0.01. **p< 0.05. *p< 0.10. p- value is based on Pearson's χ^2 statistic*

3.5 Results from Logistic Regression Analysis: What Determines Illness Reporting?

In this section, the results of logistic regression analysis predicting the illness reporting of household members in the month prior to the survey are discussed. To control for the confounding influence of the socio-demographic and other factors, a model was fitted for the outcome variable to identify the independent associations between the socio-demographic indicators and illness reporting. The multicollinearity among the independent variables was assessed by using both correlation matrix and Variance Inflationary Factor (VIF). The correlation matrix showed that none of the explanatory variables were highly correlated. A rule of thumb indicating the multicollinearity is such that if the correlation between the independent variables is more than 0.70, then there is reason to suspect the problem of multicollinearity (Marquardt, 1980). Furthermore, it was found that VIF was less than 5 for each of the independent variables (Table 5). According to Gujarati (2003), the VIF value greater than 5 indicates the problem of multicollinearity. Some other researchers suggest that if VIF is greater than 10, there is too much correlation among the independent variables (Marquardt, 1980). In this study, there were not any problems of multicollinearity; and thus, a full block of independent variables was included in the logistic regression model.

Table 5. *VIF among the Independent Variables for Checking Multi-Collinearity*

Explanatory variables	VIF
Head working, formal sector	4.25
Head working, informal sector	3.93
Being married	3.20
Age in completed years	3.12
Being student	2.53
Working, informal sector	2.29
Head education in completed school years	2.12
Working, formal sector	1.98
Being widow or separated	1.88

Explanatory variables	VIF
Being head	1.69
Being Brahmin/Chhetri	1.66
Education of individuals in completed school years	1.65
Head age in completed years	1.48
Being female head	1.48
Being other castes	1.41
Being female	1.40
Natural log of income per capita	1.30
Living in urban area	1.23
Family size	1.23
Access to health facility within half an hour	1.20
Access to motorable road within half an hour	1.17
Have health insurance	1.15
Have own dwelling	1.06
Being Hindu	1.05

Note. Age, Education, Head age, Head education, Family size, Natural log of income per capita were measured in interval scale and others are dummy variables: 1= Yes; 0= No

The results from Logistic regression analysis showing the adjusted odds ratios (AORs) of reporting illness in the month prior to the survey have been presented in Table 6. Only full model consisting of all potential confounders have been discussed since it has the highest predictability among other equivalent models. A number of individual, household, and accessibility characteristics emerged as significant predictors for reporting illness.

Individual characteristics such as gender revealed that females were 34% more likely to report illness as compared to males, after controlling other potential confounders (Odds ratio =1.34, 95% CI=1.19-1.52). As expected, an individual's age was found to be significantly associated with reporting of illnesses and injuries. Children aged less than 4 years and senior citizens aged 60 years or above were more likely to report illness as compared to the individuals aged 5 to 59 years. It is known from earlier research that an individual's age influences the likelihood of illness. In developing countries, we would expect a U-shaped relationship between age and morbidity, implying that the health risks are highest for infants and elderly (Heller, 1982).

Table 6. *Determinants of Reporting an Illness in the Month Prior to the Survey*

Explanatory/ Independent variables	Categories/ Attributes	Odds Ratio	95% CI	
			Lower	Upper
Gender (Male =R)	Female	1.34***	1.19	1.52
Being head (Not head=R)	Head	1.31***	1.09	1.57
Age group in years (5 to 59 =R)	0 to 4 (Child)	3.12***	2.43	4.03

Explanatory/	**Categories/**	**Odds**	**95% CI**	
	60 or more (Senior)	2.46***	1.92	3.15
Marital status (Unmarried =R)	Married	1.32***	1.11	1.57
	Widow or other	1.40*	1.08	1.95
Head's gender (Male=R)	Female	1.22*	1.02	1.45
Head's age in completed years		0.99	0.99	1.00
Head's caste/ethnicity (Tharu=R)	Brahmin/Chhetri	1.01	0.85	1.19
	Other castes	0.86	0.71	1.04
Head's religion (Non-Hindu=R)	Hindu	1.09	0.86	1.36
Family size		0.91***	0.89	0.93
Education level (No education =R)	Primary	0.82	0.65	1.05
	Secondary	0.58***	0.46	0.74
	Tertiary	0.49***	0.37	0.65
Occupation status (Not working=R)	Working, informal sector	0.63*	0.53	0.74
	Student	0.99	0.81	1.22
	Working, formal sector	0.65***	0.52	0.81
Head's education (No education =R)	Primary	1.28**	1.12	1.45
	Secondary	1.17*	1.01	1.34
	Tertiary	1.27*	1.02	1.59
Head's occupation (Not working =R)	Working, informal sector	1.25	0.99	1.58
	Working, formal sector	1.16	0.88	1.53
Health insurance (Not enrolled =R)	Enrolled	1.40***	1.24	1.59
Household economic status (Poorest= R)	Poorer	0.87	0.72	1.05
	Middle	0.69***	0.57	0.83
	Richer	0.76***	0.63	0.91
	Richest	0.60***	0.49	0.74
Rural urban (Rural municipality=R)	Urban municipality	1.13*	1.02	1.26
Access to health facility (More than half an hour =R)	Within half an hour	1.22***	1.09	1.38
Access to motorable road (More than half an hour =R)	Within half an hour	1.34***	1.02	1.81
Total number of household members		6480		

** **p< 0.001, **p< 0.01, *p< 0.05, R= Reference category, Model correctly classified= 65.5%,*

Pseudo R^2= 0.0896, LR(χ^2)=802.79, Model sig. p value< 0.001, Unit of analysis=Household members.

An individual's education was only significant for secondary and tertiary levels. Individuals with secondary level of education were 42% less likely to have illnesses than individuals with no formal education (Odds ratio= 0.58). Similarly, individuals with tertiary level of education were 51% less likely to have illnesses than the individuals with no education (Odds ratio= 0.49). Married and widowed people were significantly more likely to have illness compared to their unmarried counterparts. Being employed or occupied either in formal or informal sector, individuals were less likely to have illness compared to the individuals who were not working.

Concerning to household characteristics, a number of key indicators, such as head's gender, head's education, health insurance coverage, family size, economic status, had effect on reporting illness. The odds of illness reporting were 22% higher in female-headed households than male-headed households. Being insured, individuals were more likely to report illness, whereas individuals from larger family size were less likely to report illness. The study found that individuals from higher household economic status were significantly less likely to have an illness.

Individuals in urban households were more likely to report an illness than their rural counterparts after controlling for other factors. Individuals who had access to modern health facilities and motorable road within half an hour of distance were more likely to report an illness than individuals who lived in a community far more than half an hour.

4. DISCUSSION

Illness is a health shock but it is perceived differently by households according to various socioeconomic status. For instance, less educated and poorer households are less likely to report simple illnesses. So, the level of awareness could be the significant predictor of illness reporting. This survey relied upon respondents' self-assessment of illness indicating the methodological constraints in interview-based health surveys (Ross & Vaughan, 1986). The reliance on self-recall may be somehow problematic. Respondents could not always recall the illness and there could be the possibility of reporting biases (Ross & Vaughan, 1986). Thus, the findings presented here should be treated with caution. This study aimed at identifying households with an illness where the social health insurance program was first piloted in Nepal.

To collect information on illness/injury, respondents were asked to report all household members affected by illness or injury in the month prior to the survey, by interviewing mainly the household heads or spouses. There are methodological limitations or constraints regarding reporting of illnesses. The widely used limitations mentioned in the literature are recalled and selection biases, commonly found in interview-based health surveys (Fabricant & Harpham, 1993; Ir et al., 2010; Ross &Vaughan, 1986). For example, talking about possible recall bias, the respondent may indeed not accurately remember the illness history of all household members. In

this study, the recall bias was minimized because the study focused on illness that occurred within a short period of time, which was only one month prior to the survey. Also, the data collection was carried out by a group of experienced and well-trained field enumerators or by the principal investigator. Selection bias may also be limited given the relatively big sample size. Furthermore, the sex, age, ethnic, religious, family size, and urban-rural structure of this survey population was also more or less similar to that of the studied district population. The probability of reporting a perceived illness does not only depend on its incidence or prevalence in the survey population, but also on the respondent's awareness and perceptions and several such studies of illness were based on reported or perceived illness (McIntyre et al., 2006; Russell, 2004). This suggests that despite some methodological limitations in reported illness, careful analysis and interpretation of the findings could still yield useful information for further understanding of the self-reported illness.

The main purpose of this study was to estimate the level of illness reporting and factors associated with it. The findings show that out of 6480 surveyed individuals, nearly one in four (1590 individuals or 24.5%) reported illness in the month prior to the survey. The most commonly self-reported illness in the month prior to the survey was cold/cough/fever followed by gastritis/abdominal pain.

The hypothesis testing from the logistic regression model showed education as a significant predictor of illness reporting following a post-positivism research paradigm, a deductive method of quantitative inquiry. This result is consistent with Grossman's theory indicating that better educated persons are, through healthier lifestyles, expected to be more efficient producers of health (Grossman, 1972). Being females, they were more likely to report illness after controlling for socio-demographic and other potential confounders. This result is parallel to the previous studies conducted in Nepal and Georgia indicating the widespread assumption that women experience considerably more ill-health than men (Rous & Hotchkiss, 2003; Gotsadze et al., 2005). Rodgers (2009) also pointed out that women were more likely to be sick than men in Cambodia. Furthermore, many health indicators exhibit considerable gender differences according to an individual's social position and role (Berhane et. al, 2002). A possible explanation for this high frequency of reported illness among women could be that women in this sample were proportionally older than men while the prevalence of diseases correlates with age. Out of 527 enumerated household members aged 60 or more years in the study sample, 52%

were females and 48% were males. Children aged less than 5 years or senior citizens aged 60 years or above were more likely to have illness. This implies that the health risks are higher for infants and the elderly as found in the earlier research (Heller, 1982).

Concerning household characteristics, a number of key indicators, such as gender of household head, household health insurance enrolment status, family size, economic status have effect on illness reporting. Individuals in households headed by females were more likely to report illness than individuals in households headed by males. The study found that individuals from higher household economic status were significantly less likely to have an illness. This result is in line with the findings of Sen (1999), which states that richer people have fewer illnesses and live longer. This could be the reason that with a higher wealth status and thereby a higher budget, the individuals can increase their investment in health (Grossman, 1972). The significant poor-rich difference could be due to the higher risk of illness and vulnerability to health shocks among the poor, as poor people often have worse health and suffer more often from severe health problems than the rich do (Gwatkin et al., 2007). Individuals from poor household economic status were more likely to have illness. The poor-rich difference could be due to the higher risk of illness and vulnerability to health shocks among the poor, as poor people often have worse health conditions and suffer more often from severe health problems than the rich do (Gwatkin et al., 2007). Individuals who had access to modern health facility and motorable road within half an hour of distance were more likely to report an illness than individuals who lived in a community farther than half an hour.

Limitations of the Study

The study has some limitations that need to be acknowledged. First, this is a cross-sectional survey conducted in one district of Nepal. The cross-sectional nature of the data only provides the estimates of illness reporting at one point of time. Thus, long-term perfect causal associations cannot be perfectly inferred from this study. Second, collecting data on the illness reporting can be very costly and time-consuming and self-reported illness from the survey may be prone to recall/reporting bias. However, self-reported illness surveys have been widely used for decades in a variety of academic disciplines (Bhandari, 2006). Third, it would have been useful to consider supply-side factors. However, information on supply factors was lacking in this study. This could be a key area for further research and a qualitative approach is suggested to capture

supply-side factors. Thus, this study captures only potential predicting factors of individual, household, and community characteristics. Fourth, variations in the seasonality of diseases in the study district were not considered. For example, the study was conducted between November 2017 and January 2018 – i.e. in the winter season. The timing of the survey may well have affected the self-reported illness such as colds, which tend to be more usual in winter than in summer. However, as per the latest national survey of Nepal, cold/cough/fever was the most predominant reported illness throughout the year (CBS, 2011).

5. CONCLUSION AND POLICY IMPLICATIONS

The results of this study have important policy implications. The findings from this study could inform policy in the ongoing national health insurance debate in Nepal and elsewhere. Since household members having health insurance are more likely to report illness compared to uninsured suggests that there is need to expand the health insurance program thought the country. Despite some methodological constraints, this study provides new information on the occurrences of self-reported illnesses among the Nepalese population, which could serve the basis for further in-depth investigation on illness reporting and economic consequences especially for poor households. This can in turn help policy makers to formulate proper interventions to protect the poor from the financial burden associated with ill-health. Furthermore, in order to minimize the economic burden of illness, several approaches need to be adopted, including social health insurance complemented with an upgraded community-based health insurance system, and subsidy program expansion for illness/diseases with high economic burden.

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References

Beogo, I., Huang, N. Gagnon, M.P., & Djesika D. Amendah, D.D. (2016). Out-of-pocket expenditure and its determinants in the context of private healthcare sector expansion in sub-Saharan Africa urban cities: Evidence from household survey in Ouagadougou, Burkina Faso. *BMC Research Notes, 9,* 34. https://doi.org/10.1186/s13104-016-1846-4

Berhane, Y., Hogberg, U., Byass, P., & Wall, S. (2002). Gender, literacy, and survival among Ethiopian adults, 1987-96. *Bulletin of the World Health Organization,80*(9), 714-720. https://www.scielosp.org/article/bwho/2002.v80n9/714-720/en/

Bhandari, A. (2006). Self-reported utilization of health care services: Improving measurement and accuracy. *Medical Care Research and Review, 63*(2), 217-235. https://doi.org/10.1177/1077558705285298

Central Bureau of Statistics /The World Bank. (2013). *Nepal small area estimation of poverty 2011*. Kathmandu: Author. https://cbs.gov.np/nepal-small-area-estimates-of-poverty-2011-data-viz/

Central Bureau of Statistics. (2011). *Nepal living standards survey 2011*. Kathmandu: Author. https://cbs.gov.np/nepal-living-standard-survey-2010-11

Central Bureau of Statistics. (2012). *National population and housing census 2011(National Report).* https://cbs.gov.np/national-population-and-housing-census-2011national-report/

Deaton, A., & Zaidi, S. (2002). *Guidelines for constructing consumption aggregates for welfare analysis. Living standards measurement study* [Working paper no. 135]. Washington DC: World Bank.

Fabricant, S.J., & Harpham, T. (1993). Assessing response reliability of health interview surveys using reinterviews. *Bulletin of World Health Organization,71*, 341–348. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2393501/

Gotsadze, G., Bennett, S., Ranson, K., & Gzirishvili, D. (2005). Health care-seeking behavior and out-of-pocket payments in Tbilisi, Georgia. *Oxford University Press & London School of Hygiene and Tropical Medicine*. https://doi.org/10.1093/heapol/czi029

Grossman, M. (1972). On the concept of health capital and the demand for health. *The Journal of Political Economy, 80*, 223-255. https://www.journals.uchicago.edu/doi/pdf/10.1086/259880

Gwatkin, D. R., Rutstein, S., Johnson, K., Suliman, E., Wagstaff, A., & Amouzou, A. (2007). Socio-economic differences in health, nutrition, and population within developing countries. *Washington DC: World Bank.* https://commed.vcu.edu/IntroPH/Underserved/2008/IndicatorsOvervieWorldBank.pdf

Heller, P.S. (1982). A model of the demand for medical and health services in Peninsular Malaysia. *Social Science & Medicine*, *16(3)*, 267-284. https://doi.org/10.1016/0277-9536(82)90337-9

Ir, P., Men, C., Lucas, H., Meessen, B., Decoster, K., Bloom, G., & Van Damme, W. (2010). Self-reported serious illnesses in rural Cambodia: a cross-sectional survey. *PloS one*, *5*(6), 1-12. https://doi.org/10.1371/journal.pone.0010930

KOICA-Nepal Health Insurance Support Project. (2014). *Comprehensive district assessment for health insurance in Kailali district*. Lalitpur, Nepal: Author.

Marquardt, D.W. (1980). You should standardize the predictor variables in regression models discussion of: A critique of some ridge Regression methods by G. Smith and F. Campell. *Journal of the American Statistical Association*, *75*, 87-91. https://doi.org/10.1080/01621459.1980.10477430

Masiye, F., & Kaonga, O. (2016). Determinants of health care utilization and out-of-pocket payments in the context of free public primary healthcare in Zambia. *International Journal of Health Policy and Management, 5*(12), 693–703. https://doi.org/10.15171/ijhpm.2016.65

McIntyre, D., Thiede, M., Dahlgren, G., & Whitehead, M. (2006). What are the economic consequences for households of illness and of paying for health care in low-and middle-income country contexts? *Social Science & Medicine*, *62*(4), 858-865. https://doi.org/10.1016/j.socscimed.2005.07.001

Ministry of Health and Population. (2018). Nepal national health accounts 2012/13-2015/16. Kathmandu: MoHP. http://www.searo.who. int/nepal/documents /nepal_nha_2012_13_2015_16_ mohp_june_2018.pdf

Pokharel, R., & Silwal, P. R. (2018). Social health insurance in Nepal: A health system departure toward the universal health coverage. *International Journal of Health Planning and Management, 33*(3), 573–580. https://doi.org/10.1002/hpm.2530

Rodgers, Y. M. (2009). The health status of Cambodia's elderly in a context of gendered violence. *Gender & Development,17*(3), 453-465. https://doi.org/10.1080/13552070903298469

Ross, D. A., & Vaughan, J. P. (1986). Health interview surveys in developing countries: a methodological review. *Studies in Family Planning*, *17*(2), 78-94. https://doi.org/10.2307/1967068

Ross, K.N. (2005). S*ample design for educational survey research: Quantitative research methods for educational planning.* Paris, France: UNESCO International Institute for Educational Planning. http://www.sacmeq.org and http://www.unesco.org/iiep.

Rous, J. J., & Hotchkiss, D. R. (2003). Estimation of the determinants of household health care expenditures in Nepal with controls for endogenous illness and provider choice. *Health Economics*, *12*(6), 431-451. https://doi.org/10.1002/hec.727

Russell, S. (2004). The economic burden of illness for households in developing countries: A review of studies focusing on malaria, tuberculosis, and human immunodeficiency virus/acquired immunodeficiency syndrome. *The American Journal of Tropical Medicine and Hygiene*, *71*(2_suppl), 147-155. https://doi.org/10.4269/ajtmh.2004.71.147

Saito, E., Gilmour, S., Rahman, M. M., Gautam, G. S., Shrestha, P. K., & Shibuya, K. (2014). Catastrophic household expenditure on health in Nepal: A cross-sectional survey. *Bulletin of the World Health Organization*, *92*(10), 760-767. https://doi.org/10.2471/BLT.13.126615

Sen, A. (1999). Economics and health. *The Lancet, 354, (*SIV20). https://doi.org/10.1016/s0140-6736(99)90363-x

Shackman, G. (2001). *Sample size and design effect.* Albany Chapter of American Statistical Association. NYS DOH. http://faculty.smu.edu/slstokes/stat6380/deff doc.pdf

StataCorp. (2012). *Intercooled statistical software 12 for windows*. College Station TX: StataCorporation.

United Nations. (2008). *Designing household survey samples: Practical guidelines. (No. 98).* New York: Department for Economic and Social Affairs. https://unstats.un.org /unsd/demographic/sources/surveys/Series_F98en.pdf

Wagstaff, A. (2002). Poverty and health sector inequalities. *Bulletin of the World Health Organization*, *80*, 97-105. https://www.scielosp.org/article/bwho/2002.v80n2/97-105/en/

Wang, H., Zhang, L., & Hsiao, W. (2006). Ill health and its potential influence on household consumptions in rural China. *Health Policy*, *78*(2-3), 167-177. https://doi.org/ 10.1016/ j.healthpol.2005.09.008

Wang, S. Y., Chen, L. K., Hsu, S. H., & Wang, S. C. (2012). Health care utilization and health outcomes: A population study of Taiwan. *Health Policy and Planning*, *27*(7), 590–599. https://doi.org/10.1093/heapol/czr080

World Bank. (2017). *What can we learn from the Nepal social health security program implementation process?* Kathmandu, Nepal (World Bank Country Office): World Bank Group Health Nutrition & Population

Xu, K., Evans, D. B., Kawabata, K., Zeramdini, R., Klavus, J., & Murray, C. J. (2003). Household catastrophic health expenditure: a multicountry analysis. *The Lancet*, *362*(9378), 111-117. https://doi.org/10.1016/S0140-6736(03)13861-5

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Public Service Announcements for Health Insurance in Nepal: Perspectives from Health Belief Model

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Abstract

Public Service Announcement (PSA) is an advertisement to inform the people sponsored by the public company or the governmental agencies. There were several PSAs implemented to inform the people about health insurance (HI). Data from the Health Insurance Board showed low enrolment with high dropout in health insurance programme (HIP). It was found that the PSAs could not attract the people. Therefore, we assessed the PSAs used for the HIP and amomg them, three Radio/FM jingles, eight TV spots, hoarding board, newspapers, and brochure were evaluated using the Health Belief Model (HBM). We found the almost all PSAs have not covered the constructs of HBM. Most of the PSAs have included primarily perceived benefits and perceived susceptibility but missed to include perceived severity, perceived threats, and self-efficacy. Only benefits focused message could not attract the people. Therefore, we recommend that all PSAs need to have all the features of HBM in the PSA messages while notifying and informing the people.

Keywords: Advertisement; health information; health insurance; mass media and communication; public awareness; Public Service Announcement

1. Background

The Government of Nepal [GoN] initiated health insurance programme [HIP] as social health security in three districts: Kailali, Baglung and Ilam in 2016. The HIP is novel for Nepalese people (Health Insurance Board, 2019). Most people did not have adequate

knowledge about health insurance [HI]. In such a context, people may not participate in the programme. Access to accurate, sufficient and timely information is vital for health-related decision making (Kreps et al., 2017). However, just before the implementation of the HIP in 2014, 11 percent of the people had heard about HI and only one out of ten (9%) had good knowledge about it (KOICA-Nepal Health Insurance Support Project [NHISP], 2014). Access to mass media is one of the best means to disseminate health-related information to the mass population. Data show the diverge observation in access to mass media at a different time as well as place. Nine out of ten (89.5%) knew community-based health insurance [CBHI] programme among the members who had taken membership of CBHI compared to three-fourth [75.7%] of those who had no membership card of CBHI in Sunsari District (Subedi et al., 2018).

Nepal Demographic and Health Surveys [NDHS] show the different trend of access to mass media to age 15-49 years of men and women over the survey years. Of the media, 15-49 years, 31.4, 34.2, and 27.7 percent of them had access to the newspaper at least once a week in the survey year 2006, 2011, and 2016 respectively compared to 10.3, 12.6, and 8.7 percent of women of reproductive age [15-49] had access to newspaper respectively at least a week in the corresponding years. But access to TV noticed as in increasing trends. Near to half (44.9%), 54.7, and 51 percent men of age 15-49 had access to TV compared to women (15-49 years) 38.1, 47.4, 50.3 percent respectively in NDHSs 2006, 2011, and 2016. Interestingly, access to Radio observed as in decreasing trends. More than three-fourth (77.7%), 58.5, and 36.1 percent of the men had access to Radio compared to 60.5, 44.2, and 27.7 percent of the women respectively in the respective NDHSs 2006, 2011, and 2016. Access to all these media (Newspaper, TV, and Radio) was in decreasing trends (in men: 22.2%, 20.1%, 9.4% and in women 8.0 %,7.4%, 3.2%) while access to none of these media was in increasing trends (in men 16.5%, 19.5%, 31% and in women 30%, 33%, 37.2%) respectively in NDHSs 2006, 2011, and 2016 (Ministry of Health et al., 2017; Ministry of Health and Population (MOHP) [Nepal] et al., 2007, 2012). Latest NDHS showed that 29 percent of household heads had Radio, and 52 percent had a TV in 2016/17 (Ministry of Health et al., 2017).

The GoN initiated HI programme in three districts in 2016 (Health Insurance Board, 2019) in initial phase without proper homework. Many people were unaware of HI and its working structure (Acharya et al., 2019; KOICA-Nepal Health Insurance Support Project [NHISP], 2014). Data from Health Insurance Board [HIB] shows that enrollment in HI seemed low with low renewal rates thought people want to pay more than two folds higher than the contribution amount (Acharya et al., 2018). It may be the cause of inadequate knowledge and low satisfaction from HI programme and its functioning mechanism. Various factors associated with HI (Acharya, 2020); however, interaction with peers and neighbours appeared to influence enrollment (Acharya et al., 2020).

There is a mandatory provision to enrol in HI (Health Insurance Act, 2017) after the formulation of the Health Insurance Act in 2017. Consequently, HI regulation is under the implementation phase (Health Insurance Act, 2017; Health Insurance Regulations, 2075, 2019). By the end of 2019, 18 percent of the total household were enrolled in the

programme implemented districts, whereas just eight percent in national level (Health Insurance Board, 2020). The HIP has now covered 55 districts, 505 local bodies and 26,87,810 populations were enrolled by the end of Falgun 2076 BS (Ministry of Finance, 2020, p. 159). After seeing these facts, it can be concluded that there might be two kinds of drawbacks. First, quality services to the enrolled members and another might be the lack of accurate, adequate and timely information about HI and its working nature.

2. Literature Review

Public Service Announcement (PSA) is a kind of advertisement to inform or attract the people sponsored by governmental institutions or any other agencies (Murry et al., 1996). A new programme needs an adequate information to the general public for sensitization, consciousness, and motivation. Various benefits packages are being offered by various private and public health service providers, including health insurance companies. PSAs are mostly used to attract and inform people. Researchers indicated the various PSA activities could influence audiences' health related knowledge, perception and attitude. It should be evaluated whether it is audience-centred or not (Hoffman et al., 2020).

PSAs consist of a simple but memorable message to persuade, inform or motivate people for healthy behaviours that are usually less than one minute trying to reach larger audiences (Borzekowski & Poussaint, 1999). A study from Indonesia showed that PSA appeared a useful tool for conveying the message to the public about stunting related information such as definition, indicators and risk factors (Liem et al., 2019). PSA can be developed mainly for two purposes: first developing a positive attitude towards the programmes or products and creating a negative attitude for unhealthy behaviour such as anti-smoking attitudes (Rydell et al., 2013). Interestingly, information spreads very fast, whether it is good (true) or bad (false) (Maidin et al., 2019).

A study from Minneapolis, Chicago, USA showed a significant association between teenagers' characteristics and perception of anti-violence-related PSAs. It found a weak relationship (Borzekowski & Poussaint, 1999). Similarly, another study explored that higher exposure to health insurance-related media messages was significantly associated with the uninsured rate. A web-based intervention for anti-smoking behaviour was positively influenced to reduce smoking behaviour (Macy et al., 2015). Therefore, PSA is useful to change the desired behaviour.

2.1 Theoretical Base

This paper's theoretical base is the Health Belief Model [HBM] developed by Hochbaun in 1958. The main spirit of the HBM is if people perceived themselves as susceptible to diseases or health problems and believed the health condition would become a severe circumstance physically or financially. If they perceived a definite course of action would overcome or reduce the problem and the action(s) feasible to them in cost and other settings, they would be more likely to take action (Champion & Skinner, 2008). In the context of PSA for HI, upon the basis of HBM, all PSA related messages need to be considered the constructs of HBM while developing it.

Many studies conducted in the issues of determinants of enrollment in HI, willingness to pay for HI but study about PSA and HI seem scarce. It is still unanswered whether the PSA disseminated to the people is adequate, accurate, or per the household's need. Therefore, the study aimed to assess the PSA implemented by the Social Health Security Development Committee (SHSDC) and Health Insurance Board (HIB) before 2018 from the perspective of HBM.

3. Methodology

The article is based on the secondary sources, i.e. public services announcements such as radio/FM, television, hoarding board, newspapers, and poster/pamphlet for public interests about HI. Several media were broadcast or published by HIB (formerly SHSDC) to inform or to make aware of the public. Some of the radio jingles, TV spots, and Hoarding board messages are selected for evaluation from behaviour change with references to HBM. The HBM guides the article. Therefore, results and discussions are deliberated from the behaviour change perspective. Radio jingles, TV spots, messages of HB, and messages on poster, pamphlet or flyer were assessed with references to primary constructs of HBM such as perceived susceptibility, perceived severity, perceived threats and benefits, and self-efficacy. All together three radio jingles, eight television messages, hoarding boards, newspapers, and poster/pamphlets were assessed from the perspectives of HBM.

4. Results and Discussion

There were various messages broadcast from Radio/FM and TV. Similarly, some messages were disseminated by Hoarding Boards, Newspapers, Flyers and others. In this paper, three Radio jingles, eight TV spots and messagtes from Hoarding Boards, Newspapers, Flyers were assessed.

4.1 Radio/FM Jingles

There were various Radio jingles about HI for public interest however three Radio jingles are assessed here concerning HBM.

4.1.1 Save seven rupees every day….[*Harekdin Saat Rupaiya*].. as the song

Saving 7 rupees a day

Health Insurance covers for a 5-member family is a way

Let's do Health insurance for assuring up to one year, so why do they become worried that limits 50 thousand.

Let's enrol in Health insurance and stay assured. Let's enrol in Health insurance and stay secured.

Stay assured you and your families, reduce health treatment cost by enrolling health insurance implemented by Government of Nepal, Social Health Insurance Development Committee.

(Acharya, 2020, p., 255).

In this jingle, the massage only focuses on the benefits of the enrolment. It could not emphasize the severity and susceptibility of illness or health problems. In the same way, the message remains silent about the perceived threat as well as self-efficacy. From the perspective of HBM the message could not cover the constructs of HBM [Table 1].

4. 1.2 Disease and illness never inform….[*Rog Bimar Upathero*]…as a song

Disease and illness never inform before happening.

No one left even child, adult, any age

Mountain, Hill, Terai! Let's assure all by enrolling health insurance.

After saving 7 rupees every day, it will be enough for a 5-member family for a year. Health insurance bears the treatment cost up to 50,000.

(Acharya, 2020, p. 255)

In this jingle, the massage appears more progressive than the previous one. The jingle covers the susceptibility of illness or health problems and the benefits of the enrolment. It could not emphasize the severity/threat of illness or health problems as a whole. In the same way, the message remains silent about the perceived threat as well as self-efficacy. From the perspective of HBM, the message could not cover the constructs of HBM [Table 1].

Table 1

Appraisal of PSA based on HBM

Message name	Components of the Health Belief Model					Remark*
	Perceived susceptibility	Perceived severity	Perceived threat	Perceived benefits	Self-efficacy	
Radio: Save seven….				√		A aid
Radio: Diseases and illness...	√			√		A aid
Radio: Greetings uncle…				√		A aid
TV: Rajesh Hamal.				√		AV aid
TV: Yamraj.				√		AV aid
TV: Suntali Dhurmus	√	√		√	√	AV aid
TV: Jigri, Pande				√		AV aid
TV: Dr Koirala	√	√	√	√		AV aid
TV: Aboard call	√			√		AV aid
TV: Pashupati song	√			√	√	AV aid
TV: Spouse talks				√		AV aid
Hoarding Boards	√			√	√	V aid

Newspapers	√	√	V aid
Guidelines, Brochure	√	√	V aid

Note: * AV = Audio and Visual, V= Visual, and A = Audio(Acharya, 2020, p. 73)

4. 1.3 Greetings Uncle…. [*Namaskar Kaka*]….as a conversation

Namaskar Uncle! You are in so-hurry! What happened?

Namaskar niece! The daughter became sick, suddenly and we have no money to go to the hospital. I am moving to beg debt.

Oh! How much you need? I have 2-3 thousand.

That's sufficient. Niece!

Uncle! Is this obtainable way to beg debt?

What can I do, niece? As we are poor.

Uncle! After enrolling in health insurance, no need to move for begging debt for treatment.

I could not understand you, niece?

After enrolling in health insurance by paying 2500 rupees, it covers up to 50,000 rupees' treatment cost for you and your family every year. Enrollment assistants visit door to door for it.

Oh, niece! Then, our family will become a member of health insurance shortly.

Let's participate in health insurance. Let's be assured you and your family for treatment.

(Acharya, 2020, pp. 255–256)

In this jingle, the massage only focuses on the benefits of the enrolment. It could not emphasize the severity, susceptibility, and threats of illness or health problems. In the same way, the message could not include perceived threat as well as self-efficacy. From the perspective of HBM the message could not cover the constructs of HBM [Table 1].

4.2 TV Spots

There were various TV spots broadcasted from different TV channels about HI for public interest however eight TV spots were assessed here concerning HBM.

4.2.1 TV Spot: Rajesh Hamal

The message had included mostly benefits of enrollment in the insurance in a perspective of financial benefits. The message could not include other aspects of HBM [Table 1]. Therefore, the message is observed as an ineffective PSA from the perspective of HBM. Please find the link for message details at Appendix I.

4.2.2 TV Spot: Yamraj

The message has also included the benefits of enrolment from the perspective of finance. All other constructs of HBM are missed [Table 1]. Therefore, the message can be considered as defective in terms of HBM constructs. Details of the message can be obtained from the link presented in Appendix I.

4.2.3 TV Spot: Suntali-Dhurmus

The message is comparatively more progressive than previous messages from the perspective of HBM. The message has included nearly all constructs of HBM [Table 1]. Mainly perceived susceptibility, severity, benefits and self-efficacy are included in this message. The TV spot id also long in terms of time than others. Please see the link in Appendix I.

4.2.4 TV Spot: Jigri-Pande

The message included mostly benefits of enrollment in the insurance that means from a financial perspective only. The message could not include other aspects of HBM [Table 1]. Therefore, the message is noticed as an ineffective PSA from the perspective of HBM. Please find the link for message details at Appendix I.

4.2.5 TV Spot: Dr Koirala

This was the most attractive message among the TV spots. Nearly all aspects of HBM were included in this advertisement. The primary constructs of HBM: perceived susceptibility, perceived severity, perceived threats, perceived benefits were included in the spot [Table 1]. Therefore, this message can be considered one of the most attractive TV spots from the perspective of HBM. Details of the message can be run from the link presented in Appendix I.

4.2.6 TV Spot: Mother-son talking from aboard

This message was a conversation between mother and son from aboard. The message has mainly focused on the perceived susceptibility and benefits of the HI concerning HBM. Primarily, two major constructs of the HBM was included in the message [Table 1]. Details of the message can be watched from the YouTube link (Appendix I)

4.2.7 TV Spot: Pashupati-song

The message was a song and funny to watch; however, only three primary constructs of HBM, i.e. perceived susceptibility, perceived benefits and support to self-efficacy [Table 1]. Comparatively the message is more attractive comparative another TV spot though it is not enough from the viewpoint of HBM. The message can be observed from the link obtainable in Appendix I.

4.2.8 TV Spot: Spouse-talking

The message has also included the benefits of enrolment from the perspective of finance. All other constructs of HBM were missed [Table 1]. Therefore, the message can be

considered as defective from the angle of HBM constructs. Details of the message can be obtained from the link presented in Appendix I.

4.3 Hoarding Boards

Most of the hoarding boards [HB] were placed at the service point that means in the health facility and at the entry point of the districts where the programme implemented. Most of the HB included the message of the benefits of enrolment [Table 1]. In some HBs there was message related to perceived susceptibility and support to self-efficacy message. From the perspective of HBM, it is not enough since the HB contained only two to three constructs of HBM [Figure 1].

Figure 1: Hoarding board for health insurance-related messages

4.4 Newspaper

Newspaper is one of the most critical media for health communication. According to Economic Survey 2077, there were 7801 Newspapers published daily, weekly, monthly or yearly throughout the country (Ministry of Finance, 2020). Frequently HI related messages and articles are being published in the newspaper, and some are advertisements. Considering the published PSA associated with HI, most of the messages are benefits-focused. They have only included messages related to perceived susceptibility and perceived benefits [Figure 2].

Figure 2: Newspaper for health insurance-related message

4.5 Guidelines/Brochure

The guidelines and brochure were also informative, that includes perceived susceptibility and perceived benefits related messages. They missed informing about perceived severity, perceived threats and support for self-efficacy [Figure 3]. In the same way guidelines for HI were also just information and focused on HI programme benefits.

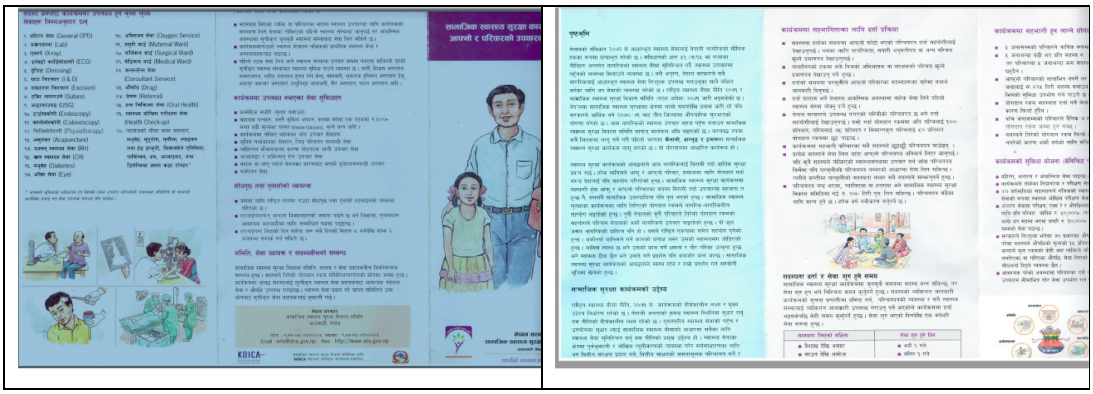

Figure 3: Brochure for health insurance-related message

5. Disucssion

After assessing all the PSA tools, it can be concluded that these PSA tools need to be re-construct since they could not meet the constructs of HBM. A study conducted in Baglung and Kailali in 2018 showed that perceived susceptibility, perceived severity, perceived threats, and perceived benefits were significantly associated with HI's enrolment. However, most of the advertisement (PSA) were not maintained as per the theoretical base of HBM.

A study from South Korea showed that establishing a structured educational programme (PSA) could lead to better participation in National Health Insurance Service (Lee et al., 2019). Similarly, Nan explored that PSA could influence the individual with a strong and positive attitude (Nan, 2008). Therefore, an appropriate PSA would be one of the main determinants for enrollment in HI. The first-hand message from PSA was found effective for organ donation (White & Dillon, 2000) that can be translated in HI. However, the PSA's credibility mostly depends on expertise and trustworthiness, so these factors should be considered while disseminating it (Toncar et al., 2007).

PSA was tested in different fields and mostly found it useful to change the behaviour. A PSA for anti-marijuana, using TV messages, was noticed as applicable as per the theory of the elaboration likelihood model (Weber et al., 2013). A PSA campaign meaningfully addressed the drug prevention perception among youth vulnerable in Vancouver, Canada (Ti et al., 2017). Similarly, an anti-smoking PSA was found effective to change the negative attitude towards smoking (Won et al., 2017). Likewise, a PSA was also an effective strategy to improve the knowledge and attitude of HPV and its vaccine (Kepka et al., 2011).

A PSA for the eye-care programme was found compelling, and it encouraged people to have an eye examination. The study further indicated the young age, female, diabetic patients, un-insured and proximal distance were associated with eye examination (Hoffelt et al., 2011). Another study in Chicago showed PSA's effectiveness to inform the people and suggested that theory-driven mass media campaign needs to be tested for public awareness (Gordon et al., 2016). Therefore, PSA and mass media should be based upon any theory or principle.

6. Conclusion

After considering the relevant literature compared to this study, it can be concluded that PSA is an effective strategy to improve people's knowledge and attitudes. Appropriate PSA could be able to change the behaviour of the people positively or desirably. However, PSA should include the adequate, correct and proper message to inform the people. Currently, HI's enrolment rate is not satisfactory, and on the other side, there is a high dropout rate. Therefore, presently implemented interventions need to be revised and re-evaluated since most of the interventions (PSA) did not follow HI's theoretical base for PSA. The study showed that PSA considering the constructs of HBM could increase the rate of enrollment. This strategy would be applied while doing intervention planning for the health insurance programme.

Limitations

The paper is based upon the secondary sources, i.e. PSA for HI sponsored by the HIB (formerly SHSDC). Some of the Radio/FM jingles, TV spots, message of HI in Newspaper, brochure have been changed after the endorsement of the Health Insurance Act 2017 and regulation 2019. Most of the materials were collected in 2018; therefore, new materials for PSA might be missed. PSA can be evaluated from a different perspective in this paper, PSA is assessed from the standpoint of HBM.

References

Acharya, D. (2020). *Information, education, and communication for enrolment in health insurance in Nepal* [Tribhuvan University]. An unpublished PhD Dissertation.

Acharya, D., Devkota, B., & Adhikari, R. (2018). Willingness to pay for family health insurance : Evidence from Baglung and Kailali districts of Nepal. *Global Journal of Health Science*, *10*(12), 144–155. https://doi.org/10.5539/gjhs.v10n12p144

Acharya, D., Devkota, B., Gautam, K., & Bhattarai, R. (2020). Association of information, education, and communication with enrolment in health insurance: a case of Nepal. *Archives of Public Health*, *78*(135), 1–13. https://doi.org/10.1186/s13690-020-00518-8

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), 90–99. https://doi.org/10.5539/ass.v15n2p90

Borzekowski, D. L. G., & Poussaint, A. F. (1999). Public service announcement perceptions: A quantitative examination of anti-violence messages. *American Journal of Preventive Medicine*, *17*(3), 181–188.

Champion, V. L., & Skinner, C. S. (2008). The Health Belief Model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health behavior and health education : theory, research, and practice* (4th ed., pp. 45–65). John Wiley & Sons, Inc.

Gordon, E. J., Shand, J., & Black, A. (2016). Google analytics of a pilot mass and social media campaign targeting Hispanics about living kidney donation. *Internet Interventions*, *6*, 40–49. https://doi.org/10.1016/j.invent.2016.09.002

Health Insurance Act 2017, (2017). https://shs.gov.np/assets/uploads/files/Health_Insurance_Act_2074.pdf

Health Insurance Board. (2019). *Annual Report: Fiscal Year 2074/75*. https://hib.gov.np/public/uploads/shares/hib_nepal_annual_report_2075_complete.pdf

Health Insurance Board. (2020). *Brief Annual Report*. https://hib.gov.np/public/uploads/shares/notice_hib/health_insurance_report_2075-76.pdf

Hoffelt, Z., Fallon, S., Wong, B. A., Lucas, B., Coleman, A. L., Mills, R. P., Wilson, R.,

& Mansberger, S. L. (2011). Glaucoma public service announcements: factors associated with follow-up of participants with risk factors for glaucoma. *Ophthalmology*, *118*(7), 1327–1333. https://doi.org/10.1016/j.ophtha.2010.12.013. Glaucoma

Hoffman, B. L., Cafferty, L. A., Jain, P., Shensa, A., Erica, L., Primack, B. A., & Sidani, J. E. (2020). Patient-centered communication behaviors on Primetime Television. *Journal of Health Communication*, *00*(00), 1–10. https://doi.org/10.1080/10810730.2020.1723040

Kepka, D., Coronado, G. D., Rodriguez, H. P., & Thompson, B. (2011). Evaluation of a Radionovela to promote HPV vaccine awareness and knowledge among Hispanic parents. *Journal of Community Health*, *36*, 957–965. https://doi.org/10.1007/s10900-011-9395-1

KOICA-Nepal Health Insurance Support Project [NHISP]. (2014). *Comprehensive district assessment for health insurance in Kailali district*.

Kreps, G. L., Yu, G., Zhao, X., Chou, S. W., & Hesse, B. (2017). Expanding the NCI health information national trends survey from the United States to China and beyond: Examining the influences of consumer health information needs and practices on local and global health. *Journalism & Mass Communication Quarterly*, 1–11. https://doi.org/10.1177/1077699016687725

Lee, M. K., Seo, J., Chu, H., Kim, H., Jang, Y. H., Jeong, J. W., Yum, H. Y., Han, M. Y., Yoon, H. J., Cho, S., Rha, Y. H., Kim, J., Park, Y. L., Seo, S. J., Lee, K. H., & Park, C. O. (2019). Current status of patient education in the management of atopic dermatitis in Korea. *Yonsei Medical Journal*, *60*(7), 694–699. https://doi.org/10.3349/ymj.2019.60.7.694

Liem, S., Marta, R. F., & Panggabean, H. (2019). Sanitation behavior and risk of stunting : Understanding the discourse of a public service announcement. *Jurnal The Messenger*, *11*(2), 168–181. https://doi.org/10.26623/themessenger.v11i2.1317

Macy, J. T., Chassin, L., Presson, C. C., & Sherman, J. W. (2015). Changing implicit attitudes toward smoking: Results from a web-based approach-avoidance practice intervention. *Journal of Bhavioral Medicine*, *38*(1), 143–152. https://doi.org/10.1007/s10865-014-9585-2

Maidin, A., Sakrani, S. N. R., Wahab, S. A., & Razak, N. A. A. (2019). Public service announcement by government through social media: A public's perspective. *International Journal of Heritage, Art and Multimedia*, *2*(4), 1–11.

Health Insurance Act, 1 (2017). http://www.lawcommission.gov.np/np/archives/24220

Ministry of Finance. (2020). *Economic Survey 2076/77*. Kathmandu, Nepal

Ministry of Health and Population (MOHP) [Nepal], New ERA, & ICF International Inc. (2012). *Nepal Demographic and Health Survey 2011*. https://dhsprogram.com/

pubs/pdf/FR257/FR257%5B13April2012%5D.pdf

Ministry of Health and Population (MOHP) [Nepal], New ERA, & Macro International Inc. (2007). *Nepal Demographic and Health Survey 2006*. https://dhsprogram.com/pubs/pdf/FR191/FR191.pdf

Ministry of Health, New ERA, & ICF. (2017). *Nepal Demographic and Health Survey 2016*. www.dhsprogram.com/pubs/pdf/fr336/fr336.pdf

Murry, J. P. J., Stam, A., & Lastovicka, J. L. (1996). Paid versus donated media strategies for public service announcement campaigns. *Public Opinion Quarterly*, *60*, 1–29.

Nan, X. (2008). The influence of liking for a public service announcement on issue attitude. *Communication Research*, *35*(4), 503–528. https://doi.org/10.1177/0093650208316053

Health insurance regulations, 2075, 1 (2019). https://hib.gov.np/public/uploads/shares/nimabali.pdf

Rydell, R. J., Sherman, S. J., Boucher, K. L., & Macy, J. T. (2013). The role of motivational and persuasive message factors in changing implicit attitudes toward smoking. *Basic and Applied Social Psychology*, *34*(1), 1–12. https://doi.org/10.1080/01973533.2011.637847

Subedi, L., Regmi, M. C., & Giri, Y. (2018). Assessment of community based health insurance in Sunsari District. *Kathmandu University Medical Journal*, *16*(61), 53–59. http://www.kumj.com.np/issue/61/53-59.pdf

Ti, L., Fast, D., Small, W., & Kerr, T. (2017). Perceptions of a drug prevention public service announcement campaign among street-involved youth in Vancouver, Canada: A qualitative study. *Harm Reduction Journal*, *14*(3), 1–8. https://doi.org/10.1186/s12954-017-0132-7

Toncar, M., Reid, J. S., & Anderson, C. E. (2007). Effective spokespersons in a public service announcement. *Journal of Communication Management*, *11*(3), 258–275. https://doi.org/10.1108/13632540710780247

Weber, R., Westcott-Baker, A., & Anderson, G. (2013). A multilevel analysis of antimarijuana public service announcement effectiveness. *Communication Monographs*, *80*(3), 302–330. https://doi.org/10.1080/03637751.2013.788254

White, H. A., & Dillon, J. F. (2000). Knowledge about other's reaction to a public service announcement: The impact of self persuasion and third-person perception. *Journalism & Mass Communication Quarterly*, *77*(4), 788–803.

Won, K., Lee, J., Ryu, J., & Jeong, S. (2017). Effects of Anti-Smoking Public Service Announcements on the Attitudes of Korean College Students toward Smoking. *Osong Public Health and Research Perspectives*, *8*(6), 397–403. https://doi.org/10.24171/j.phrp.2017.8.6.07

Appendix I

Television Messages

Message of Rajesh Hamal….[https://www.youtube.com/watch?v=S7iZnO7bftI]

Message of Yamraj….. [https://www.youtube.com/watch?v=AxwJ605S-bE]

Message of Suntali Dhurmus…[https://www.youtube.com/watch?v=gN4yWo_jxYg]

Message of Jigri-Pande…[https://www.youtube.com/watch?v=5wmARgqcH54]

Message of Dr Koirala….[https://www.youtube.com/watch?v=TrI8bMY9nrY]

Mother-Son Talking from aboard….[https://www.youtube.com/watch?v=Hxqoqt-xj5U]

Message of Pashupati's song …[https://www.youtube.com/watch?v=zywZI3bh-kU]

Message of couple/husband-wife talking…[https://www.youtube.com/watch?v=OPR9y8PIDqQ]

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

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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,

$$n = (Z\_ \propto \text{^}2\, pq)/d\text{^}2$$

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)
30 – 45	28(26.2)	54(35.8)	82(31.2)
45 – 60	27(25.2)	39(25.8)	66(23.8)

Variables	Insured	Uninsured	Total
	Frequency (percentage)	Frequency (percentage)	n (%)
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

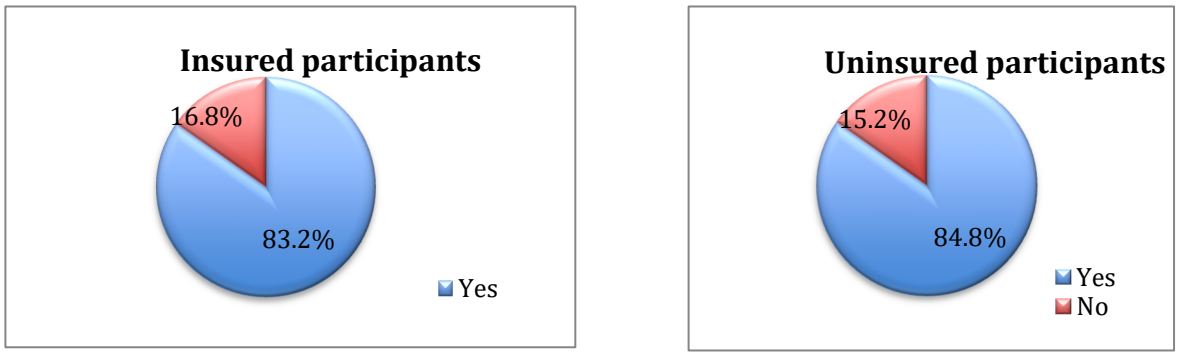

Figure 1: Satisfaction of insured and uninsured participants

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

		Insured		Uninsured		Total
S.N	Items	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)

		Insured		Uninsured		Total
S.N	Items	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
5	Time given by a service provider/doctor	2.78±0.58	74(69.2)	2.80±0.66	102(67.5)	176(68.2)
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, x_1^2-6.230). 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

Insured						
Variables	**Satisfaction**		**Value**	**p-value**	**OR**	**95% CI**
	Yes	**No**				
	N (%)	N (%)				
	89(83.2)	18(16.8)				
Type of visit						
First	66(82.5)	14(17.5)				
Follow up/ referral	23(85.2)	4(14.8)	Fisher=0.504	1.000	0.820	0.423-1.709
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

Insured						
Variables	**Satisfaction**		**Value ⧖**	**p-value**	**OR**	**95% CI**
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 ⧖**	**p-value**	**OR**	**95% CI**
	Yes	**No**				
	N (%)	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*, l2378. doi: 10.1136/bmj.l2378

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., Majumdara, 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 cc o-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

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Role of Informal Education, and Human-Agent on Insurance Industry

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Abstract

This article discusses how the insured persons learn to be responsible for managing the risk via insurance and the role of agents in this process. So that, a dozen of purposively selected persons were interviewed with unstructured and open-ended questions. Interpretation of so generated qualitative information suggests that people rarely appreciate insurance, and agents are as dominant as the product in buying decisions. Employing informal education to make citizens responsible for their risk management is almost ineffective. The role of agents in enabling customers as prudent risk managers by raising their awareness about different insurance products is observed as a conflict of interests between the state and the agent. In a liberal society, persuading people by a profit-making company is dominant than the state-delivered awareness program. These findings not only question the role of the insurance agent, a human resource for facilitating people to learn about insurance, as commission-based workers instead of professional but also problematize the legitimacy of transferring the state's responsibility of educating citizens to the private companies.

Keywords: Human-Agent, Informal Education, Insurance Industry, Life-skill Learning, Risk-Management Education

1. Introduction

In Nepalese insurance market, more than 100 types of life insurance products are available through19 different life insurance companies. These companies are owned by state, domestic private sector, foreign investor, and jointly owned by domestic and foreign investors, and regulated by Insurance Board (henceforth, IB). Insurance companies, on the one hand, prepare human agents by providing short-term training and IB grants license, and, aware and encourage citizens to get insured, on the other. Generally, the insurance product is sold but not bought to safeguard the company from adverse selection and information asymmetry.

Insurers produce a large number of sale agents to render their services to potential customers providing training and needful information. Agents work as a mediator between insured and insurance companies and act as a "Field Underwriter". Thus, the agents have identified potential policy buyers, and aware them of the importance of insurance, and convince them to buy policies. On the one hand, the agents seem the key person of the insurance business, and on the other hand, they are found under pressure because of a monopolistic competition among the companies, as well as, intra-company and inter-company competitions of agents.

In liberal economy, the state's responsibility of risk management has not only been transferred the to the profit-making companies but also state social insurance, welfare, and security provisions have been substantially reduced in the favor of private-sector alternatives (Ericson, Doyle & Barry, 2003, p. 29). For example, the government has handed the authority to financial institutions such as banks and insurance to decide to whom to accept as risks. Thus, companies have segmented the population into risk pools, and have decided to whom to sell or not to sell the insurance policies for the benefits of companies.

The subject, in liberal risk regimes, requires knowledge of risk to be an active consumer. This knowledge is increasingly available in the risk-centered stories in mass media with a more specialized publication. Both one-way education through media and two-way interactive education via a human agent is equally pertinent convincing to the potential customers of an insurance policy.

In Nepal, commercial general insurance service was started in 1947 with the establishment of Nepal Insurance Company, and commercial life insurance was commenced in 1973 by Rashtriya Beema Sansthan. Nepal government-initiated social health insurance since 2015 which is still not obligatory but commercial third-party motor liability insurance and term life insurance for foreign migrant workers is mandatory. There is an ideological, political, legal, socio-cultural, and economic debate about making insurance voluntary or mandatory. ILO Social Security Convention 1952 has recommended a minimum of, nine different types of social insurance but the coverage is not satisfactory. The coverage of commercial life insurance is almost 25% (Insurance Board, 2020) whereas the coverage of social insurance (universal health coverage) is far below the coverage of commercial insurance.

For both modes of insurance policies, the citizens must be educated: either to convince the rationale of mandatory insurance or to make them aware and able for choosing, and at the same time, taking responsibility of choice, making a decision in voluntary insurance. Insurance policy is a matter of selling rather than buying. An insurance company, via its agents, selects the customer, and unless recommended by an agent one cannot buy an insurance policy directly from the office of the company.

The aforementioned conditions for voluntary insurance; and status of insured numbers, together imposed two assumptions: (a) people are not sufficiently aware to buy voluntary products of insurance, and (b) people are aware but they have no economic capacity to buy

these products. It is a matter of curiosity how these two factors are acting on making ready a person buying an insurance policy. Among the aforementioned assumptions, the first is related to the process of persuading that composed of constructing belief and developing a positive attitude toward insurance. However, considering the logistic and academic limitations, on the one hand, and interest of researcher and prioritizing of the issue, on the other, a study was conducted to explore the experience of people regarding their perception toward insurance policy, and the role of agents in buying an insurance product.

Revolving around the axis of this objective, a dozen of neighbors and teaching faculties were purposively selected and their experiences about buying insurance products were dug out through 'qualitative interview' as used by Knapik (2006). So generated verbal formation was interpreted, and extracted three themes: (a) people rarely appreciate insurance; therefore, it looks like buying an insurance policy is for the agents rather than themselves; (b) insures rely almost upon the agent instead of the comparison of different companies and products and choosing the best; and (c) the role of the insurance agent is mostly requesting, creating emotional pressure rather than educating for mutual appreciation. Therefore, this finding problematizes the channel of informal education that state-employed to make people aware of risk management and insurance. It also questions the conflicting roles of agents- i.e., an agent of a private company to expand the business, at the same time, an agent of the state to enhancing social welfare through educating people; and their positions and capacities of deliberating the roles.

2. Review of Literature

This article ventures cross-cutting issue- the implication of educational principles of public awareness into the promotion of insurance business. Therefore, a brief discussion has been made to conceptualize 'risk management and insurance', educating people to make responsible for insurance decisions, and the role of insurance agents in educating people and linking these concepts.

2.1 Public Awareness in Liberal Society

A nation invests in educating its citizen because the educated people are relatively better at making the right decisions in their daily lives, as well as, they can easily be mobilized as per the policies of the state (Chabbott & Ramirez, 2000). Nations' efforts to educate people are categorized into three complementary modes: formal, non-formal, and informal. The formal modes are delivered through schools and colleges; non-formal is through skill development and vocational training centers; and informal is through mass media, seminars, interactions, workshops, and informal conversations, etc.

State-delivered public awareness is one form of informal education that is targeted for a huge mass of diverse backgrounds, and it is loosely designed, delivered, and evaluated. Learning in informal education is guided and designed by the learner rather than teacher and

institutions, therefore it is tantamount to life-long and life skill learning. Pozgaj (2008) opined that informal education is "acquired through everyday activities when a person freely chooses what knowledge and skills they want to master and how they want to accomplish it. A person has control over the learning process and its results (p. 1)".

In a liberal society, states transfer their role in private organizations and people should be self -aware to take advantage of a competitive market. In liberal society it is claimed that services are personalized by putting users at the heart of services, enabling them to become participants in the design and delivery, services will be more effective by mobilizing millions of people as co-producers of the public goods they value (Leadbetter, 2004, p. 19) and thus, people make decisions about their lives in a different way. This is bottom-up, mass social innovation, enabled by the state (Leadbetter, 2004, p. 16). But the capitalist can develop the culture of consumerism, and shape the choices people make their profit for what Migone (2007) describes as 'Hedonistic consumerism'. Nevertheless, people are forced to take sole responsibility for their actions. . . . "That means people have to shoulder more responsibility for assessing and managing the risks of their behaviour (Leadbetter and Lownsbrough, 2005, p. 27)". Therefore, in a liberal society, citizens as consumers should be updated to the policies and programs of the state, as well as develop their skills to have access.

2.2 Informal Education in Risk Management

In a liberal society, risk management is the business of individuals instead of the state. Therefore, risk-management education is essential for citizens so that they can know, choose, and take responsibility for their choice. The state should provide them opportunities and facilitators so that they can learn about managing their risk with different methods, where one is buying an insurance product. Risk management education to the citizens covers sufficient knowledge about the sources of risk, and ways of managing it, on the one hand, and skill in a comparative analysis of insurance products available in the market, on the other (Hall, Knight, Coble, Baquet & Patrick, 2003). From the perspective of consumer right, Ericson, Doyle, and Barry (2003) opine-

> "The insurance industry is instructive for advancing the sociology of consumption. Insurance is a product that most buyers with little appreciation. They spend large sums of money to purchase something they have little knowledge about and therefore cannot adequately assess concerning price and feature. The only material thing they obtain at the outset is a piece of paper: a legal contract that they rarely read and even more rarely understand. They do understand that embedded in the contract is a promise to pay if something goes wrong (p. 5)".

The aforementioned excerpt suggests that policy buyers need sufficient knowledge so that they can analyze the value-price ratio of any insurance product. In a liberal economy, as suggested by Ericson, Doyle, and Barry (2003), there are six principles regarding individuals' self-responsibility in risk-taking that the state actively promotes-

" (a) people are presumed to have enough self-restraints, willingness to share, and capacity for self-governance; (b) a free-market is supposed to provide security and propensity by encouraging fragmented individuals; (c) people must become educated, knowledgeable, reflexive risk-taker; (d) each individual is to be her political economy, and informed, self-sufficient consumer or labor markets, personal security markets; (e) within a range of responsible risk-taking all differences, and the inequalities that result from them, are a matter of choice; and (f) the state is a necessary but uneasy partner, a problem subject to vigilant monitoring and active reform (p. 36)".

Moreover, the insurance market is not free from fraud, and "prosecution and punishment of insurance fraud through the legal system is extremely rare (ibid, p. 19)". It indicates that in a liberal society, citizens are let free to swim in a lake of the profit-making market where an informed, clever, and prudent can get more benefits and unaware, straightforward, and average people do not. Private (or profit-making) insurance companies have implemented the policy to minimize welfare 'social transfer' and maximize liberal 'risk transfer' to the level of organization and individuals. Through insurance contracts, "the state actively promotes individual responsibility for risk. This promotion involves an attack on welfare, including the moral risks posed by state insurance systems and the mangling and dependency that result at the level of welfare recipients. Reconfiguring itself and but one player in the inter institutional filed of insurance, the state limits its role to turning people into responsible risk-takers and managers who purchase private insurance, offering at best a temporary safety net when things go wrong (ibid, p. 14)"

In such a market system, knowing about insurance policies, products, choices, etc., is one part of doing risk management. Risk management is not only one aspect of life skill, but also a part of lifelong learning as discussed by Singh (2015, p.19). Therefore, public awareness about insurance is a kind of informal education where "the attainment of learning follows practices that depend on the interactive, dialogic and experiential subject matter (Hewitt, 2018, preface)".

2.3 Human-Agent in Alternative Education

The non-formal and informal education is collectively called alternative education, the counterpart of mainstream formal education. An empirical study conducted by Ghimire (2018) suggests that human agents through alternative education can bring changes in the health and nutrition habit of socially backward people. The Government of Nepal (MoES, 2007) has adopted an 'oral literacy campaign', as a form of an awareness campaign (Policy 1). The strategy of implementing such a campaign is discussion sessions and mobilization of various communication media. To make learning effective, the government has established 'Community Learning Centers', where a social mobilizer, a human agent, is appointed to conduct a literacy campaign by mobilizing both the individuals and the community where various development activities for the welfare of the community can be conducted (MoES, 2007).

Self-learning, for layperson, about insurance policy is almost impossible, it requires facilitators to explain and interpret the clauses and provisions of the contract. One way of public awareness through media is not sufficient. Raising public awareness is not the same as telling the public their responsibility (UN Women, 2010). Like a social mobilizer, an insurance agent can interact with potential policy buyer, explain the importance of insurance products, suggests for the best product, and assist in the official process of the contract.

People get information through different electronics and printed media as well as social interactions. But, education, of risk management and insurance, is more than awareness, because, education requires, beyond receiving the information, responding and valuing- i.e., developing understanding and attitudes according to the message of the information delivered. Just information, though, the rational-empirical method is not sufficient to change the value of a person, that requires normative-reeducative strategy (Nickols, 2010). Selling insurance products, and collecting premium periodically resembles educating to educating.

Insurance policy, as proactively selling products, demands human agent who approaches to the buyers, explains, presents the evidence or cases of benefits of insurance, follow up or supervise the people in work, etc. By this process, an agent plays role in developing a belief that buying an insurance product is the best way of risk management. "Traditionally beliefs have been linked with information about an object, attitudes to the evaluation of that object conceptualized beliefs as more than just cognition, capable of arousing effect around the object of the belief and thus having a motivational function (Seel, 2012, p. 448)". Clusters of beliefs form attitudes that are functionally and cognitively connected to the value system. Therefore, an agent can play a crucial role in developing the value of insurance for people, but the danger is that s/he implicitly influences for the benefits of her/him and the affiliated company rather than the customer. regarding the selling of in(security) Ericson, Doyle & Barry (2003) opine-

> Insurance products are less consumer-driven, many of them are sold proactively and aggressively by providing lucrative incentives to sales staff. Marketing (in)security is substantially different from marketing of material goods, in which brands identities and cultivates 'coolness' through positive lifestyle images and a sense of immediacy (p. 5).

The literature review indicates an ambivalent condition of public awareness in a liberal society. The first logic is that private insurance companies via their agents approach the potential policyholders with the intention of the state in managing the risk of subjects. The second logic is that private insurance companies, on the one hand, educate the potential customers via their agents who work on a commission basis, so that they work for the self-benefits among affiliated companies, and the state, on the other hand, via its regulatory authority, educates citizens enabling them to make the best choice among many products. Thus, interests of state and private companies encounter and conflict while making decisions

in insurance policy buying. It is crystal clear that this incommensurability exists during the interaction between agents and insures to arrive at a contract. Leaving behind observing this issue in the field, this review encourages exploring- how the insurance companies and their agents are perceived by the customers in the course of learning and deciding about insurance products.

3. Methodology

As the study aimed to explore individuals' experiences regarding perception toward insurance policy, and the role of agents in buying (or offering) insurance products, it employed phenomenological design. Therefore, it rejects the belief that objects in the external world exist independently and information about objects is reliable but accepts that how things as insurance appeared in or "presented to the consciousness of the study subjects" (Groenewald, 2004, p. 43). The paradigm of the study was constructionism- i.e., participating with the people, and co-constructing the knowledge with and about the customers of insurance products.

As the term phenomenology equates to 'modes of appearing', or 'a thing experienced by individuals', the best avenue of inquiry of individuals' "subjective understanding" is interviewing (Seidman, 2006, p. 12). Therefore, a dozen of close friends including teaching faculties and neighbors, who were ready to share their experiences of how they decided to buy insurance policy were consulted. To increase the credibility of this study prolonged engagement had been employed. The information was inductively analyzed by generating themes and the themes were further analyzed to solving the research problem.

4. Citizens' Experiences about Insurance

In phenomenological interviews, one studies another subject, which means that two autonomous subjects, capable of producing accounts of themselves and their worlds, interact together in an ever-developing conversation (Høffding & Martiny, 2015, p. 2). The researcher, in this study, seeks a second-person perspective. In the process of the interview, the interviewer (researcher) got not only first-hand knowledge of the interviewee, with a lot of discursive knowledge but also a lot of tacit knowledge. This knowledge has influenced while analyzing the information.

Analyzing the information implicitly begins with the conversation, and then a selection from the plethora of transcript because "phenomenology is not interested in quail in the sense of purely individual data that are incorrigible, ineffable, and incomparable (Gallagher & Zahavi 2008, p. 28)". Rather, it seeks to explore its essential structures and conditions of possibility and aims to disclose structures that are inter-subjectively accessible, and its analyses are consequently open for corrections and control. Therefore, analysis followed the axial coding- i.e., segregating and selecting the themes around of axis of a research question, by considering "the types of phenomena, contexts, causal and intervening conditions, and consequences (Kelle, 2005, p.?)" deciding insurance policy buying.

4.1. Some Excerpts and Meaning

From the conversations to a dozen, excerpts of experiences of the five purposively selected subjects (by changing their names) are presented here to share with the readers as first-hand information. The meaning of each excerpt paragraphs has been extracted in the succeeding paragraph. The subjects present diverse backgrounds as well as experiences, but their excerpts and meaning indicate certain common patterns.

(a) Suvash Kumal

Suvash Kumal is a 39-year-old school graduate. He has been running fancy clothes shops for 10 years. An agent of an insurance company, whose shop is next to his, had tried to sell him a life insurance policy many times. Besides him, the other three agents also had requested him to buy. Three years ago, when his daughter went to Japan to work, the agent again came to convince him, saying that- "you are a businessman, you can get a loan from the same company after the 3 years of policy start; if you get an accident: the company will bear the cost of treatments; after that, if you get disable, the company will provide the disability benefits, or if you get demise company will pay the sum assured". He was recommended by other two insured persons: the shop-room owner, and adjacent homeowner, to buy the policy. They also had bought the same product from the same agent. They told him that the company is the best among all, and an agent is also trustworthy person their suggestions made him buy the insurance product by realizing that if his daughter and son won't care for him at old age, or in case of accidental disability, the insurance will be his sole supporter.

The agent not only frequently requested but also created pressure by recommendation of two influencing policyholders. The buyer has supposed that the agent is urging him for his benefits, though; he has realized that the agent won't cheat him. Suvash is hopeful to the contract paper as explained by the agent; he will be helped, if something will go wrong. Nevertheless, he has hesitantly and suspiciously bought the policy in the recommendation and urging.

(b) Ram Bhandari

Ram Bhandari is a 53-year-old associate professor of TU. He runs a private school as well. Twelve years ago, he had bought life insurance policy at the request of his own of the relatives who was an agent. For seven years he paid an annual premium regularly. Then he went to India for Ph.D., he discontinued paying a premium. With the burden of study, he forgot or did not take it seriously. A few months ago, the agent met by chance reminded him to continue by paying all the dues. His wife urges him either to continue or terminate by refunding how much he can. Even though, he has no time to think over it and execute what he thinks to decide (this sentence demands another supportive sentence). He hesitantly

expressed- "what can I do, the company won't refund, nor I like to store more money there unproductively, instead of investing in the productive sector?

For him, the insurance product is not appreciative; he bought it only because he could not deny the request of the agent. He has bought some obligatory and medical insurance for *Karmachari Sanchaya Kosh*. Even in his accidental death, his wife gets pensions, and he has sufficient property to survive. For him, paying the premium, documenting, claiming in saturation is just bothering of time and money.

(c) Mahendra Khatiwada

Mahendra Khatiwada is a 30-year-old college dropout. He has been running a hardware shop with an annual turnover of above 200 million for seven years. He had bought a policy of premium of 10 thousand per annum, 15 years ago, but terminated after seven years. In my question "why are you not interested in insurance" he replied as- "for businessmen, every amount of money is worth to multiply our profit, then how can we turn such active money into inactive by spending in the name of premium?" In my curiosity- "but, there are many businessmen who buy the policies of millions" he explained- "yes, I understood what you mean, only those businessmen who have a link and setting to earn much money via insurance fraud (compensation of loss claim) buy insurance policies". He presented three cases of familiar and renowned businessmen of Chitwan district who had become rich overnight by insurance fraud. Finally, he says- as businessmen we must think that the insurance company which is doing business with others' (i.e.- insured) money (premium), of insurance, how can we think to put our worthy cash ideal in a bank?

As a young energetic businessman, he has understood insurance is beneficial only for those who can fraud, otherwise, it is just a waste of productive money.

(d) Rashika Gurau

Rashika Gurau is a 30-year-old high school dropout, spinster. She has been running a tailoring shop for ten years with her three sisters. One of her relatives requested her to buy a life insurance policy to which she could not deny. It was just an amount of three thousand and five hundred rupees per annum, and it is collected as saving, therefore she accepted. As told that she could not terminate it before, but after 15 years, she will get more than twice the collected amount and bonus, etc. she supposed that the scheme was not bad.

She bought insurance because she could not deny the request of the agent. Meanwhile, realized that paying a premium, on the one hand, turns into saving for the future, and on the other hand, support, if something will go wrong with her. She took the help of the 'insurance' (contract) as explained and promised by the agent, because she has no other more helpful hopes- family members, property, job, etc., in the day when she becomes unable to earn.

(e) Naresh Shrestha

Naresh Shrestha is a 47-years-old, lecturer of TU by profession. He had bought an insurance policy 15 years ago, and became an agent of the same company, and mediated for all the members of his family. He has mediated for more than 20 people, in the early years. Now, almost all persons who may accept his urge and request are insured, and he is unable to convince the persons of the outer sphere. He says- "insurance is important, but most of the layperson be ready to buy a policy in the urge of agents, as honoring their request. There are many of my agent friends who earn more than two million per annum from the commission of the insured premium. An agent who rides a car befriends with rich- business, party, club, etc., can have to buy policies of millions, and get commission accordingly, but, for those (like us) who ride motorcycles, and whose friends and relatives are not willing to buy policies, agentship is just self-humiliation".

His decision of buying insurance policies was influenced by the motivation of the commission of the agent. However, his knowledge of insurance as an agent and then context, suggest that he realized insurance as risk management. But, for him, insurance is the forced selling business, and the agent who works in commission-basis must have, at first, access to the rich persons, and then, so deep friendship that they won't deny his request.

4.2.Interpretation and Findings

Interpretation is the heart of qualitative research. Willing (2017) opines that "the language of 'analysis' is associated with science whereas the language of 'interpretation' with arts and humanities (p. 256)" and for Bryan (2002), "the purpose of the analysis is seen to be the establishing of cause whereas interpretation is considered to be about the elucidation of meaning (p. 2)". Thus, the axial themes are interpreted to make meanings, and thus produced meanings are presented as the findings of the study.

(a) People rarely appreciate insurance

Among the subjects of the study who participated in the interview, regardless of their academic qualification, and profession, certain phenomena appear. Ram and Mahendra did not appreciate insurance. They were not worried about risk and relied on transferring the liability of risk by buying an insurance policy. Moreover, for Mahendra, 'insurance' is tantamount to fraud, and an approach of moneymaking for both company and insured. It is a system of exploiting the honest and layperson and supplying to the depraved and cleaver.

(b)Agents are dominants instead of product

Suvash and Rashika bought the policy, but they were imposed by agents. Nevertheless, the insurance contract has made them a little hopeful to their worrying future. Suvash was, though, informed many years before, he took a decade to decide to buy. Rather than understanding by comparison among the different, he chooses the company and product in the recommendation of the other two insured, and the agent to whom he got friendship. It suggests that a familiar and trustworthy agent is the key source of convincing. The principle

of awareness about insurance assumes that people learn about the companies and their products, and identify the best for them, and the people, in this process, will study the documents and interact with agents. But the experiences of the subjects suggest the contrary to the assumption.

As Naresh reported, an agent convinces potential customers to buy a policy by making them so close friends that they would not deny the request for buying insurance products. It suggests that agentship looks like the art of friendship rather than professionalism. This finding threatens the general assumption regarding agentship, and professional development of insurance agents.

5. Conclusion

There are three types of insurance products. The first type is offering- 'Employees Provident Fund' offers health insurance to its members; second is the obligatory- 'third-party vehicle insurance' is one of the examples; and third is voluntary insurance- as the aforementioned subjects had bought. While imposing citizens the obligatory types, or letting them voluntarily buying, clients' awareness, acceptance, and self-responsibility to choose are must as a hallmark of a democratic society, and the state's responsibility in liberalism towards citizens as claimed by Hung, Yoong, and Brown (2012)-"a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing (p.8)." The OECD (2007) has highly appreciated the consumer education- "households should be encouraged and provided with the possibilities to enhance their awareness and their responsibility relative to the coverage of their overall risk-exposure as well as their understanding and knowledge of insurance products and markets (p. 4)." The findings contradict the claim of liberal society. But, lacking knowledge about insurance in public suggests that the government has not valued insurance as much as it must. Citizens rarely approach the awareness programs and pamphlets about risk management and insurance. People perceive insurance as a crook way of businessmen for moneymaking rather than an honest way of risk-sharing. Moreover, there is lacking informal learning about insurance and life skill about risk management.

Instead of a separate and reliable channel of a guardian, the state has applied the channel of profit-makers. People almost rely on agents even to decide whereas obligatory for buying, even though, they perceive agent as fraud setter. "Insurance sector faces many more unethical practices, such as untrue advertisements, half-truths, and nondisclosure of material information, (p. 10)". Similarly, Cooper and Frank (1991) have identified six types of unethical behavior committed by insurance agents in Malaysia, where, sales and company policy would be the driving force for unethical intention, as agents need to constantly match the expectations and targets set by the company (Haron, Ismail & Razak, 2011). Insurance market based on intra-company and inter-company competition, unit and target-based payment always possess the risk of unethical work, nonetheless, the state has transferred the

role of educating into the agents of private companies. In this situation, how can the state's policy of public awareness through agents be a true-teaching?

Persuading people by a profit-making company is dominant than the state-delivered awareness program. People decide to buy a product because of the relationship with the agent, the role of an agent is crucial for both to make citizens responsible and capable of risk management; and the selling of companies. Contrary to this icon, an agent is sometimes perceived as a fraud-setter between a company and customers, and the fraud-setter also can be a successful agent. To overcome this ambivalence, the agent who takes insurance products to potential customers must be an expert and moral educator. So that, an agent as a teacher of informal education, like a school or college teacher, must be developed as a professional. How can the insurance agents be supposed as agents of the state to educate citizens without any 'performance-based reward' as insurance companies provide a commission?

An agent carries out two incommensurate, if not conflicting, roles that are- educating people risk and insurance, and meanwhile, selling them insurance products for the benefits of a company. It creates a pertinent doubt of whether the interest of the state- i.e., wakening citizens to take full responsibility of risk management; and the interest of the profit-making company and commission-driven agents- i.e., persuading one to buy their products, completely commensurate? This controversy and ambivalence suggest a study on how the agents can be developed as professionals who can define their roles in the destiny of the 'socialism-oriented just society' as envisaged by the constitution of Nepal.

References

Byrne, D. (2002). *Interpreting quantitative data*. SAGE Publications Ltd.

Chabbott, C. & Ramirez, F. O. (2000). Development and education. In H. B. Kaplan (ed.). *Handbook of the Sociology of Education (pp. 163-88)*. Springer Science + Business Media, LLC.

Cooper, R. W. & Frank, G. L. (1991). Ethics in the life insurance industry: The issues, helps and hindrances. *Journal of the American Society of CLU &ChFC, 45*, 54-66.

Ericson, R. V., Doyle, A., & Barry, D. (2003). *Insurance as governance*. University of Toronto Press.

Gallagher, S., & Zahavi, D. (2008). *The phenomenological mind: An introduction to philosophy of mind and cognitive science* (2nd ed.). New York: Routledge.

Ghimire, S. (2018). Need for human-agent and role of alternative education in social development. *Bibek, 34*(11) 57-69. Available at https://www.researchgate.net/publication/343416704_

Groenewald, T. (2004). A phenomenological research design illustrated. *International Journal of Qualitative Methods, 3*(1) 42-55. doi/pdf/10.1177/160940690400300104

Hall, D. C, Knight, T. O., Coble, K.H., Baquet, A. E. & Patrick, G. F. (2003). Analysis of beef producers' risk management perceptions and desire for further risk management education. *Review of Agricultural Economics, 25* (2) 430-448.

Haron, H., Ismail, I. & Razak, S. H. A. (2011). Factors influencing unethical behavior of insurance agents. *International Journal of Business and Social Science, 2* (1) 84-100.

Hewitt, P. (2018) (ed.). *Formal and informal education: learning skills.* NY: The English Press. http://dr-ama.com/wp-content/uploads/2014/05/four_strategies.pdf

Høffding, S. & Martiny, K. (2015). Framing a phenomenological interview: what, why and how. *Phenom Cogn Sci*. DOI 10.1007/s11097-015-9433-z.

Hung, A., Yoong, J. &Brown, E. (2012). Empowering women through financial awareness and education. http://dx.doi.org/10.1787/5k9d5v6kh56g-en

Kelle, U. (2005). "Emergence" vs. "forcing" of empirical data? A crucial problem of "grounded theory" reconsidered. *Forum: Qualitative Social Research, 6* (2).

Knapik, M. (2006). The qualitative research interview: participants' responsive participation in knowledge. doi.org/10.1177/160940690600500308

Leadbetter, D. &Lownsbrough, H. (2005). *Personalisation and participation: the future of social care in Scotland*. London: Demos.

Leadbetter, D. (2004). *Personalisation through participation: a new script for public services*. London: Demos.

Migone, A. (2007). Hedonistic consumerism: patterns of consumption in contemporary capitalism. *Review of Radical Political Economics, 39* (2), 173-200. DOI: 10.1177/0486613407302482

Ministry of Education and Sports (2007). Non-Formal Education Policy, 2063 (2007 AD). Kathmandu: Author.

Nickols, F. (2010). *Four change management strategies*. Retrieved from https://www.nickols.us/four_strategies.pdf

OECD. (2007). Awareness and education on risk and insurance revised analytical and comparative report. Paris: Author R. from http://www.oecd.org/finance/insurance/38962007.pdf

Pozgaj, Z. (2008). informal learning in lifelong education (modified from a presentation at the 31st International Convention MIPRO 2008 in Opatija, Croatia, May 2008). Retrieved from https://core.ac.uk/download/pdf/234940363.pdf

Prakash, R. & Gupta, L. (2013). Unethical practices and control of IRDA in Indian insurance market. *Pacific Business Review International, 6* (5) 8-12.

Seel, N. M. (2012) (Ed.). *Encyclopedia of the sciences of learning*. Springer Science+ Business Media, LLC.

Seidman, I. (2006). *Interviewing as qualitative research: a guide for researchers in education and the social sciences (3rd ed.)*. Teachers College Press.

Singh, M. (2015). *Global perspectives on recognising non-formal and informal learning: why recognition matters*. UNESCO Institute for Lifelong Learning.

UN Women (2010). Public awareness. retrieved form https://www.endvawnow.org/en/articles/248-public-awarness.html

Willing, C. (2017). Interpretation in qualitative research. In C. Willig & W. S. Rogers (Ed.). *The Sage handbook of qualitative research in psychology.* Sage Publications.

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Impact of Lapsed Policies in Life Insurance Industries of Nepal

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Abstract

Growth and competition are rapidly rising in life insurance sector. Companies have challenge to stay in the market and earn profit as well as build trust among the end users. In this context, companies have to expand business by selling more life insurance policies. However, only selling new policies might not be the solution to increase profit. Thus, company needs to ensure minimum to zero lapse rates for the sustainable growth of the company. This study investigated the impact of lapse rate and revival rate on net worth, profitability, life fund, and total premium income of life insurance industries in Nepal over the period 2010-2019. The study employed Generalized Method of Moments (GMM) for empirical estimation. The empirical results showed the lapse rate, profitability, revival rate and surrender rate of 23.91%, 2.64%, 88.82% and 3.83%, respectively in the life insurance industries in Nepal during the 10 years' period. The lapse rate was significantly negatively correlated with life fund and the total premium income with the–model coefficients of 0.1474065 and -0.19244, respectively. Moreover, the empirical estimation showed a significant positive correlation between lapse rate and profitability. This might be because high lapse rate lowers the provision of unexpired risk and life fund resulting in higher amount of profitability. The revival rate was significantly positively correlated with the profitability. This might be because higher revival rate increases the renewal income of a company, resulting in more funds available for investment thereby bringing positive cash inflow for the company. However, the revival rate did not show any significant association with net worth, life fund and total premium income.

Keywords*:* **Augmented Dickey-Fuller test, Generalized Method of Moments, Jarque-Berra test, Revival Rate, Surrender Rate**

1. Introduction

Insurance is a risk mobilization technique through the scientific study of risk profiling. The insurance sector plays an important role in the service-based economy and its services are now being integrated into wider financial industry (Malik, 2011). By exploring the risks (financial) associated with the people and society, insurance contributes to the economic growth by nurturing the long term investment through the capital collected from accumulated savings from individuals. Precisely, insurance as a risk indemnifier and financial intermediary can promote economic growth by managing risk in a more effective way and by mobilizing domestic savings in long term investment (Ward & Zurbruegg, 2000). Both life and non-life insurance companies collect scattered savings from ordinary people and create capital for the nation.

A typical life insurance contract provides a package of options or rights to the policy owner that is not precisely duplicated by any other combination of commonly available contracts. Viewed from this perspective, life insurance enjoys a unique position in the field of investments and should be judged in this light (Smith, 1982). Life insurance policies offer capital preservation and growth, as well as protection, depending on the product type (Poufinas & Michaelide, 2018). Life insurance collects premium from policyholders against their risk. If any default occurs or if the policy term matures, whichever comes first, the insurer is liable to pay the predefined amount. This is the general working principle of a life insurance company. Now the question comes, what if the policy holders are unable to pay premium after a certain time interval. What impact does it exert on the life insurance company? If policy holders are unable to pay their premium, it becomes a lapse policy within a specific period. If a policy holder restates such lapse policy under predefined guideline, it then becomes a revive policy and the risk coverage of the insured continues.

Lapse rate is the rate at which life insurance policies terminate because of failure to pay the renewal premiums by the policy holders on stipulated dates. Lapses influence the profitability and liquidity of insurance companies through acquisition cost, loss of income from renewal premiums etc and hence needs to be controlled and managed carefully (Vidyavathi, 2013). More specifically, lapse rate refers to the number of lapse policy upon the total issued policy and the revival rate refers to the revived policy upon the total lapse policy for the period.

There might be various internal and external reasons for lapse polices in life insurance industries. Some of the major internal reasons might be 'force selling' and 'miss-selling', while the external reasons might be economic condition and policyholders' behavior. Whatever might be the reasons; such lapses have negative impact on the premium collection and net-worth of a life insurance company.

Life Insurance sector in Nepal is significantly rising. Awareness and importance of life insurance is also significantly growing. Growth and competition are rapidly rising in life insurance sector. In such market place, sustainable growth and development of life insurance industries is very crucial. However, in Nepal, the studies on sustainable growth in life insurance sector are limited and the quantitative evaluation is largely lacking. Therefore, it is crucial to examine the lapse policies and the revival rates in the life insurance sectors as well as evaluate the impact of lapse rate and revival rate on net worth, life fund and profitability of the insurance companies to ensure their sustainable growth.

Companies have challenge to stay in the market and earn profit as well as build trust among the end users. In this context, companies have to expand business by selling more life insurance policies. However, only selling new policies might not be the solution to increase profit. Thus, company needs to ensure minimum to zero lapse rates for the sustainable growth of the company. Thus, this study was carried out to find out the lapse rate and its impact on profitability, net worth, life fund and total premium income, which will add value to achieve sustainable growth and expansion of the life insurance industry.

The study is based on the descriptive analyses of lapse policies in life insurance sector in Nepal in terms of number and premium and its impact on net worth, life fund and profitability over a 10 years period (2010-2019). The study attempts to examine the magnitude and trend of lapse rate, revival rate and surrender rate in the life insurance industries in Nepal. Moreover, the study examines the impact of lapse rate and revival rate on net worth, life fund, profitability and total premium income. The study also makes comparative examination of lapse rate, revival rate, surrender rate, life fund, profitability, net worth and total premium income. The findings are expected to add value to the policyholders, the insurer and mainly to the regulator for effective supervision and risk management of overall life insurance industry.

The study included the economic and panel data collected from Beema Samiti. Data related to lapse rate, revival rate, surrender rate and profitability were collected on an annual basis. The study is limited to the period from 2010 to 2019 AD. A panel data consisting of 17 cross sections (insurance company) covering a 10-year period is used for this study.

2. Literature review

Fier and Liebenberg (2013) found that voluntary lapses are related to large income shocks, and consistent with the policy replacement hypothesis. The decision to lapse of life insurance policy is directly related to the purchase of a different life insurance policy. Their study also found that age is an important moderating factor in the lapse decision. Changes in income appear to_directly affect the lapse decision more for younger households while they are generally unrelated to the lapse decision for older households. This implies that income and age of the insured have predominant impact on the lapse decision of life insurance policies.

Vidyavathi (2013) found that lapses influence the profitability and liquidity of insurance companies through acquisition cost, loss of income from renewal premiums and hence needs to be controlled and managed carefully. Lapse rate is an important ratio for insurance companies providing life insurance products for the customers. Lapse rate constitutes one of the main indicators to assess the product and service quality of the insurers.

Mall and Sahoo (2015) found that product characteristics i.e. sum insured, product type, outstanding premium, mode of payment, policy duration, outstanding policy duration, and the policyholder characteristics, such as age of the policyholder, occupation, dependency, and marital status, are significant determinants of lapsation. Their study shows a better depiction of the lapse drivers and is expected to help insurance companies and other intermediaries to understand lapsation.

Subashini and Velmurugan (2015) found that miss-selling of the product, financial burden to the policyholders and high premium rates are the major determinants of lapsation in Indian insurance market. They found that, because of these factors, in spite of rapid progress, insurance sector in India is suffering with high rate of lapsation.

Kiesenbauer (2012) found that the major determinants of lapse policies are very similar across all product categories, except that the direction of impact is reversed for the product category "other" among five different product categories (endowment, annuity, term life, group and other) which consists almost exclusively of unit-linked business. In particular, the interest rate and emergency fund hypotheses are only supported for unit-linked business, while these hypotheses do not hold for the remaining product categories. Overall, the analysis provides an understanding of lapse dynamics related to economic indicators and company characteristics.

Subashini and Velmurugan (2016) found that the foremost problem faced by insurance industry sector is the growth of lapsation rate. The main reason for the lapse in insurance policies is miss-selling, unfair business practice, delay in claim settlement and poor policy servicing. Miss-selling complaints is the dominant kind of grievances in the life insurance industry (IRDAI Annual Report 2014-15).

Yu, Cheng, and Lin (2019) found that the unemployment rate is positively related to lapse rates, and the driving force is migrant population rather than local urban residents. Insurer's reputation is negatively linked to lapse rates. Interest rates are positively (negatively) associated with lapse rates of investment-type (protection-type) products. Lapse rates of health products are not related to interest rates. Fourth, empirical result suggests that high lapse rates can potentially weaken the insurers' financial soundness and harm new business.

Kuo, Tsai, and Chen (2003) found that the unemployment rate affects the lapse rate in both the long and short run, whereas the interest rate causes variations in the lapse rate mainly in the long run. The interest rate hypothesis is favored against the emergency fund hypothesis in the sense that the interest rate is more economically significant than the unemployment rate in explaining the lapse rate dynamics.

Belth (1968) found that lapse rates have a substantial effect on price, and that consideration should be given to the use of expected lapse experience in the classification of life insurance applicants.

Parihar (2020) found that sum assured value significantly differed in public and private insurance sector across the time span. Public sector insurance companies are paying higher amount then the private sector. Considering various time for the study, the same technique reveals that the guaranteed amount paid to the policyholder in various years is different throughout the time span. But at the same time lapse ratios do not show any significant difference in public and private sector across the time. Lapse ratios are same across the sectors and also across the various time.

3. Methodology

3.1 Data sources

In the present study, we examined the impact of Lapse Rate (LR), Revival Rate (RR) on profitability (ROA), Net Worth (NW), Life Fund (LF), TPI (Total Premium Income) of 17 life insurance companies in Nepal for the period 2010-2019. Out of 19 life insurance companies, 17 life insurance companies were taken as the sample due to data availability. This study has taken Return on Assets (ROA) as the proxy of profitability. This is expressed in percentage and taken as dependent variables for the entire study. Different experimental variables were used to analyze the impact of LR, RR and SR on Profitability, Net worth, Life fund and TPI. The main focus of our study was to find a linkage between LR, RR and ROA, NW, LF and TPI in life insurance industries in Nepal.

The annual financial data relating to ROA, NW, LF, TPI, FPI, LR, RR, SR for a 10-year period were taken from the concerned companies itself. This study solely relied on the secondary source of data collected from Beema Samiti.The choice of variables and time period were determined based on data availability. A brief discussion and background of variables used in this study are summarized in Table 1.

Table 1: Description of variables and their sources

Variable	Explanation	Source of data	Period
Lapse rate **(LR)**	No. of Lapse policies/No. of policies issued	Beema Samiti	2010-2019
Revival rate **(RR)**	No. of revived policies/No. of lapse policies	Beema Samiti	2010-2019
Profitability **(ROA)**	Return on Assets in percentage	Beema Samiti	2010-2019
Net-worth **(NW)**	Amount in millions	Beema Samiti	2010-2019
Life fund **(LF)**	Amount in millions	Beema Samiti	2010-2019
First premium income **(FPI)**	Amount in millions	Beema Samiti	2010-2019
Total first premium income **(TPI)**	Amount in millions	Beema Samiti	2010-2019
Surrender rate **(SR)**	No. of surrendered policies/No of issued policies	Beema Samiti	2010-2019

3.2 Research variables

Based on existing literatures, we selected lapse rate (LR), revival rate (RR), and surrender rate (SR) as independent variables and the profitability (ROA), life fund (LF), net worth (NW), first premium income (FPI) and total premium income (TPI) as dependent variables.

3.2.1 Dependent variables

ROA is a common tool to measure profitability of a company. ROA gives an idea as to how efficient a company's management is at using its assets to generate earnings. A higher ratio

implies that the available sources and tools are employed efficiently. The formula to calculate ROA is as follows:

$$\frac{\text{Net Profit after tax} - \text{Preference Dividend}}{\text{Total Assets}}$$

Net Worth is defined as the assets minus liabilities of an individual and company. It is a measure of what an entity is worth. Relatively high net worth signifies a good financial strength and ultimately good credit rating of an individual or a company. Similarly, a low or negative net worth signifies a weak financial strength and a low credit rating. It can be calculated as:

Net worth = Paid up Capital + Reserve and surplus fund + Catastrophic fund + -write off expense -Loss transfer from P/C account

Life insurance fund means the fund established under section 18 of Directive"Financial statement of life insurer" issue dated 2068/03/10 BS. Life fund is the sum obtained from the revenue account of the insurer after deduction of payment in respect of business are made. Life fund is also called Life Assurance Fund. It is placed on the liability side of the company's Balance Sheet.

First Premium Income (FPI) is the initial (first) amount paid by the policyholder to the insurer as the premium for the policy.

Total Premium Income (TPI) is the amount received by the insurance company as premium from new and old policyholders as first premium and renewal premium income. TPI can be calculated as:

TPI = FPI + Renewal Premium Income (RPI)

Higher the TPI and FPI, bigger the company size, growth and LF and NW.

3.2.2 Independent variables

Based on existing literature, we regarded LR, RR & SR as independent variables in this study and we attempt to examine the impact of these variables on ROA, LF, NW, TPI and FPI.

Lapse rate explains how many policyholders fail to renew their insurance policy during the period. It is an amount of the number of policies issued by an insurance company that are not renewed (including forfeiture policy) divided by the number of policies that were enforced at the period. The ratio serves as an imperative tool in the insurance industry because it discloses how efficient a company is at retaining its customers and earnings. Lapsed policies differ from canceled policies. For the present study lapse rate is calculated as follows:

$$\frac{\text{Number of lapse policy (Inculding forfeiture policy) for the period}}{\text{Total number of policy issue for the period}}$$

Revival rate refers to the number of reinstated policies by the policyholder (starting their risk coverage from policy after lapse) relative to the number of lapse policy during the year. This ratio explains what percentage of lapse policies is being reinstated or revived during the period. This ratio indicates the efficiency and ability of a company to retain its old customers. The revival rate is calculated as follows:

$$\frac{\text{Number of revive policy for the period}}{\text{Number of lapse policy (inculding forfeiture policy) for the period}}$$

Surrender rate indicates the number of terminated policies by the policyholders other than the maturity claims. Higher SR has negative impact on the company's profitability and sustainability as well as public branding and trust. Lower SR implies high people trust as well as sound financial sustainability. Generally, lower surrender rate is preferred in a life insurance industry. The surrender rate is calculated as follows:

$$\frac{\text{Number of surrender policy for the period}}{\text{Total number of policy issue for the period}}$$

3.3 Normality test

The study investigated whether the variables followed the normal distribution. This study relied on the Jarque-Berra (JB) test where a null hypothesis of normality was tested against the alternative hypothesis of non-normal distribution. For normal distribution, the JB statistic was expected to be statistically indifferent from zero.

H_0 : JB = 0 (normally distributed)

H_1 : JB ≠0 (not normally distributed)

Rejection of the null for any of the variables would imply that the variables were not normally distributed and a logarithmic transformation was necessary.

3.4 Econometric specification

Prior to estimation, the test for non-stationary (unit root) was performed by employing the Augmented Dickey-Fuller (ADF) test and Levin, Lin and Chu test (Levin, Lin, & Chu, 2002)in order to determine the integration of variables and to avoid the spurious regression coefficients. The unit root test results (see Table 2) show that all variables are stationary after second differencing.

Table 2: Panel unit root test results

Variables	ADF - Fisher Chi-square	p-value	Levin, Lin & Chu test	p-value
Lapse rate (LR)	34.4374	0.0047	-5.32306	0.000
Revival rate (RR)	58.6324	0.000	-7.21141	0.000
Surrender rate (SR)	86.9079	0.000	-9.55507	0.000
Net worth (NW)	51.1436	0.000	-7.64639	0.000
Life fund (LF)	84.799	0.000	-8.45212	0.000
Profitability (ROA)	83.3612	0.000	-11.5969	0.000
Total first premium (TPI)	62.4433	0.000	-10.4275	0.000

The past studies encourage designing a dynamic panel model for consistent estimation of parameters. The lagged dependent variable is treated as a regressor on the right-hand side to show some degree of persistence in the level of LR and RR, respectively.

$$Y_{it} = \alpha Y_{it-1} + \beta X_{it} + \eta_i + \varepsilon_{it}, |\alpha| < 1, i = 1\ldots\ldots, N, t = 1\ldots\ldots T \quad \ldots\ldots\ldots\ldots(1)$$

Here, subscripts i and t denote the cross-sectional and time dimension of the panel, respectively. Y_{it} is the vector of dependent variables (NW, LF, ROA and TPI).Y_{it-1} is the vector of lagged dependent variables.X_{it} is either lapse rate or revival rate. α and β are the vector of coefficients

to be estimated. η_i is the unobserved company-specific effect and ε_{it} is the error term. The equation (I) assumes that the error term ε_{it} satisfies the orthogonality conditions.

In equation (I), Y_{it-1} is correlated with the fixed effects, which is called the dynamic panel bias that cannot be solved by the static panel data models. In the presence of lagged dependent variable, Ordinary Least Square estimation gives upward biased results. Similarly, the random effects estimator gives downward biased results in the dynamic panel data model (Baltagi, 2008). The within-group estimators also cannot solve the dynamic panel bias (Bond, 2002; Nickell, 1981). The Generalized method of moments (GMM) proposed by Arellano and Bond (1991) and generalized by Arellano and Bover (1995) and Blundell and Bond (1998) are found to be more efficient in solving the dynamic panel bias. These general estimators address such problems by first-differencing the equation (I)as follows.

$$\Delta Y_{it} = \alpha \Delta Y_{it-1} + \beta \Delta X_{it} + \Delta \varepsilon_{it} \quad \text{(II)}$$

In equation (II), the fixed effect is removed but the lagged dependent variable is still correlated with the new error term. Such endogeneity problems are also solved by the GMM estimations. Both difference GMM and system GMM are designed to remove the dynamic panel bias (Arellano & Bond, 1991; Arellano & Bover, 1995; Holtz-Eakin, Newey, & Rosen, 1988) through instrumental variables. However, the system GMM is an extended form of difference GMM and is more reliable in estimating robust results.

Generalized method of moments is a popular econometric trick designed for a short time dimension with a large number of cross sectionals' panel, and where all the independent variables are not strictly exogenous. It is precisely the case in our sample where T=10 and N=17. In order to elude the problem of dynamic panel bias and endogeneity in autoregressive panel data, this study uses system GMM proposed by Arellano and Bover (1995) and Blundell and Bond (1998). To ensure reliable estimation results, the number of instruments does not exceed the number of cross sections (companies) over the study period in all specifications (Roodman, 2006). Literature has shown that the system GMM estimator has a lower bias and higher efficiency than all the other estimators, including the standard first-differences GMM estimator (Soto, 2009).

In order to check the fitness of GMM specification models, we apply two specification tests suggested by Arellano and Bond (1991), Arellano and Bover (1995) and Blundell and Bond (1998). First, we perform the over-identifying restrictions test via Sargan specification to check the validity of the instruments used as the moment conditions. Second, we test the fundamental assumption of serial uncorrelated error.

3.5 Data analysis and presentation

The study used EViews 9, Stata 14 statistical package and Microsoft Excel 2016 for data analyses and presentation of the study findings. Quantitative data was analyzed using descriptive statistics, which included measures of tendencies (mean, median) and measures of dispersion (standard deviation and range). Inferential statistics involved measurement and relationship, which included correlation and regression.

3.6 Trend analysis

A trend is the general direction the market is taking during a specified time period. Trend analysis attempts to predict and examine the movement of position/ status of a market over a period. We carried out trend analyses for each of the eight industry-related variables. The trend analyses were divided into (1) individual companies' trend analysis and (2) industry average trend analysis for each variable.

4. Results and discussion

4.1 Descriptive statistics

The study variables were collected on an annual basis. All the data used for this study are secondary. LR, RR, SR, ROA are in percentage whereas LF, NW, TPI & FPI are amount in millions. Table 3 describes the basic features of the variables. Descriptive statistics provide summaries about the sample and they form a fundamental basis for every quantitative data analyses.

The lapse rate of the insurance companies over the study period range from 0 to 101.78% with a mean of 23.91% and a standard deviation of 19.76%. The revival rate over the study period

range from 0 to 539.49% with a mean of 88.82% and a standard deviation of 135.64 %. The ROA ranges from 0.79 to 21.47% with a mean of 2.64% and a standard deviation of 4.02%. The TPI, which refers to the average collected saving from ordinary people, range from 77.27 to23111.02 million Nepalese Rupees with a mean of 2283.02 million and a standard deviation of 3437.34 million. The NW over the study period range from 73.50 million to 9568.52 million Nepalese Rupees with a mean of 1382.49 million and a standard deviation of 14853.98 million.

Table 3: Descriptive statistics.

Variables	FPI	TPI	LF	NW	LR	ROA	RR	SR
Mean	876.17	2283.02	7607.66	1382.49	23.91	2.64	88.82	3.83
Median	463.17	1321.98	3036.61	989.53	21.01	0.07	33.10	2.30
Maximum	9263.43	23111.02	65451.16	9568.52	101.78	21.47	539.49	20.41
Minimum	56.00	77.27	16.89	73.50	0.00	-0.79	0.00	0.00
Std. Dev.	1347.54	3437.72	12207.04	1485.98	19.76	4.02	135.64	4.57
Skewness	3.64	3.59	2.71	3.64	0.94	1.87	1.92	1.56
Kurtosis	19.18	18.44	10.66	18.42	4.12	7.17	5.61	5.24
Jarque-Bera	1284.67	1184.21	356.07	1175.63	19.64	125.73	83.38	60.40
Probability	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sum	85864.24	223735.60	737942.80	134101.9	2342.73	253.59	8260.50	375.68
Sum Sq. Dev.	176000000	1150000000	14300000000	212000000	37866.89	1538.35	1692647	2025.29
Observations	98	98	97	97	98	96	93	98

4.2 Trend analysis

4.2.1 Company average trend analysis

Table 4 show the average NW, LF, TPI and FPI of individual life insurance company over ten years (2010-2019) period.

Table 4: Average NW, LF, TPI and FPI of 17insurance companies in Nepal.

S.N.	Company Name	NW	LF	TPI	FPI
1	Asian Life	817.73	5,360.01	1,851.06	607.89
2	Citizen Life	1,972.96	376.50	565.58	522.83
3	Gurash Life	665.76	1,907.31	733.23	275.22
4	IME Life	1,601.00	437.00	728.00	628.50
5	Jyoti Life	1,756.80	435.46	651.30	571.93
6	LIC Nepal	1,220.17	22,382.43	4,832.65	1,704.74
7	Met Life	854.52	9,863.63	2,062.33	422.52
8	National Life	1,316.87	3,091.36	1,095.16	402.01
9	Nepal Life	3,636.17	26,303.55	8,692.29	3,410.79
10	Prabhu Life	1,486.03	207.82	294.12	264.99
11	Prime Life	1,316.87	3,091.36	1,095.16	402.01
12	Reiable Nepal	1,503.57	352.37	431.65	391.38
13	Reliance Life	1,572.56	230.43	414.00	389.81
14	Sanima Life	1,421.30	270.76	264.32	219.34
15	Sun Nepal Life	1,526.60	387.93	537.98	**451.41**
16	Surya Life	746.55	1,536.80	842.53	307.32
17	Union Life	1,745.75	1,270.93	1,958.81	1,829.52
	Industry Average	**1,382.49**	**7,607.66**	**2,283.02**	**876.17**

Note: Figures are in million.

Tables 4 provides an overview of NW, LF, TPI and FPI of different insurance companies over the study period. Among the 17 Companies, Nepal life has predominant lead in industry with 3636.17 million net worth, which is more than the industry average. The life fund of Nepal Life is 26303.55 million, which is again 2.63 times more than the industry

average. Similarly, the total first premium income (TPI) and the first premium income (FPI) are 8692.29 million and 3410.79 million, respectively, which are almost three times higher than the industry average. LIC Nepal and Met Life are, respectively, in the second and third lead in terms of NW, LF, TPI and FPI. The market share of Nepal Life and LIC Nepal together contribute to around more than 50%. Thus, through the risk management perspective, close watch should be maintained in these companies because if any default occurs in these two companies, it might swap the whole life insurance industry.

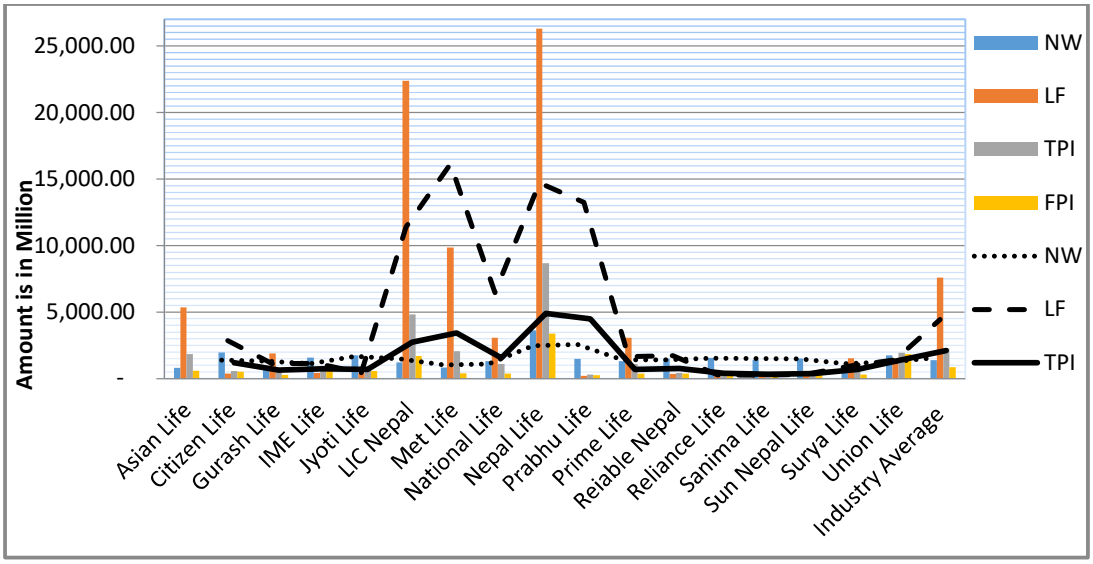

Figure 1. Comparative analyses of NW, LF, TPI and FPI of life insurance companies.

Figure 1 provides a comparative overview of the company's status in term of NW, LF, TPI and FPI.From Figure 1, it is clear that Nepal life, LIC Nepal and Met Life are leading industries. The performance of these three companies is above the industry average for NW, LF, TPI and FPI over the period.

Table 5 shows the comparative overview of companies in terms of ROA, LR, RR and SR over the study period. The ROA of Citizen Life (10.93%), Asian life (9.17%) and IME life (6.49%) are in the lead. The ROAs of most of the newcomer companies are in sound condition due to lesser amount of total assets in new companies compared to old companies. The reason behind this might be the operation size of companies. Gurash Life has the highest average lapse rate (LR) of 50.81% and the second highest average revival rate (RR) of 224.59 %, which indicates effective renewal of lapse policies over the period. It also has the highest surrender rate (SR) of 3.87% (see Table 5).

Table 5. Average value of ROA, LR, RR and SR of insurance companies in Nepal.

S.N.	Company Name	ROA	LR	RR	SR
1	Asian Life	9.17	21.25	1.74	2.34
2	Citizen Life	10.93	3.19	0.00	0.00
3	Gurash Life	0.01	50.81	224.59	3.87
4	IME Life	6.49	0.81	0.00	0.00
5	Jyoti Life	0.06	0.76	0.00	0.00
6	LIC Nepal	0.01	17.65	46.72	9.61
7	Met Life	0.08	9.16	48.07	1.45
8	National Life	5.20	38.37	48.04	3.39
9	Nepal Life	0.03	18.01	349.64	9.95
10	Prabhu Life	0.00	0.00	38.24	0.00
11	Prime Life	5.20	38.37	48.04	3.39
12	Reiable Nepal	3.88	3.45	0.20	0.00
13	Reliance Life	3.73	1.77	50.26	0.00
14	Sanima Life	1.04	1.72	0.00	0.01
15	Sun Nepal Life	0.04	5.15	0.00	0.00
16	Surya Life	0.05	37.00	44.38	3.58
17	Union Life	6.46	1.34	4.56	0.00
	Industry Average	**2.64**	**23.91**	**88.82**	**3.83**

Note: Rates are in percentage.

National life and Prime life have the second highest LR followed by Surya Life (third) and Nepal Life (fourth). Of all the companies, Nepal life has the highest revival rate (349.64%) and also the highest surrender rate (9.95%). The revival rates of most other companies are below the industry average. Nepal Life and LIC Nepal have above industry average surrender rates of 9.95% and 9.61%, respectively (Table 5). This again raises the question on the efficiency shows by the RR ratio. This might be due to huge number of policy holders across the country. This trend is more evident from Figure 2.

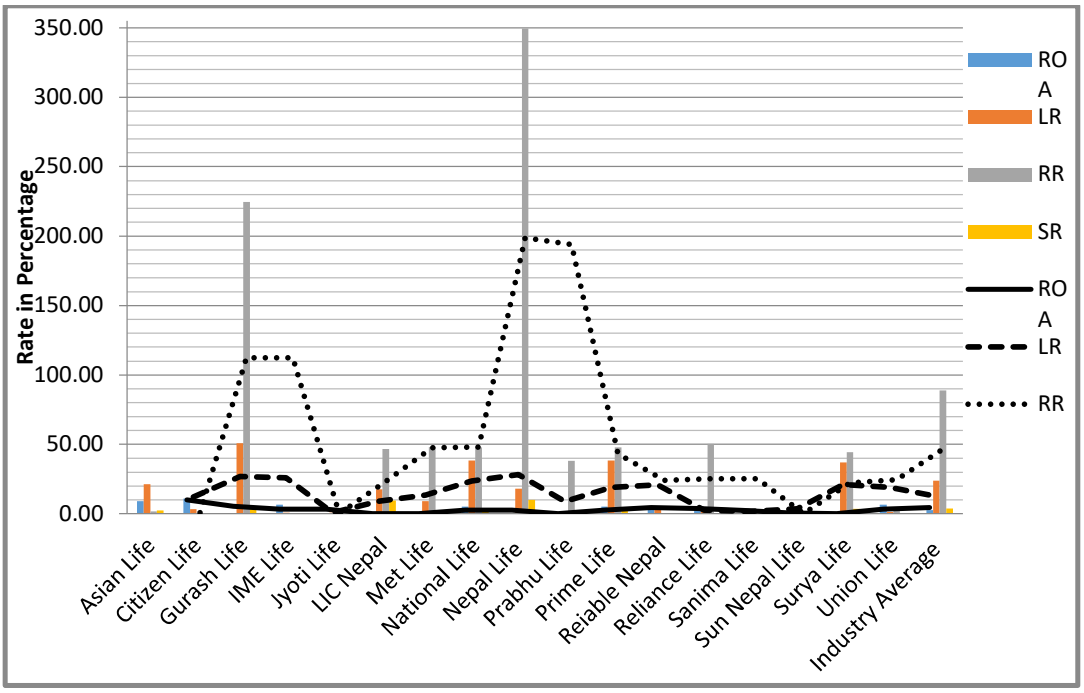

Figure 2. Comparative analyses of ROA, LR, RR and SR of life insurance companies in Nepal.

Nepal Life has the highest RR in industry with below industry average value for LR (18.01%) indicating efficient renewal of lapse policy. Gurash Life has the highest LR (50.81%) with 224.59% RR and 3.87% SR indicating its efficiency in recovering lapse policies. Other companies have below industry average values for LR, RR, SR except LIC Nepal and Nepal Life, which have above industry average SR of 9.61% and 9.95%, respectively (Figure 2).

4.2.2 Industry average trend analysis

Table 6 shows the trend analysis of NW, LF, TPI & FPI over the 10 years' period in life insurance industry in Nepal. If we observe the life insurance industry over the 10 years' period, we notice 1382.49 million of NW, 7607.66 million of LF, 2283.02 million of TPI and 876.17 million of FPI as the industrial average (Table 6).

Table 6. Trend analysis of NW, LF, TPI and FPI of life insurance industry.

S.N.	Year (BS)	NW	LF	TPI	FPI
1	2066	336.18	2015.99	778.18	284.80
2	2067	380.74	2792.68	946.92	301.93
3	2068	518.97	3722.02	1227.99	405.61
4	2069	722.42	4957.19	1446.63	416.58
5	2070	920.27	6393.56	1903.74	646.08
6	2071	1062.28	8390.83	2528.60	942.67
7	2072	1409.34	10974.84	3243.90	1108.26
8	2073	2076.21	13867.14	3876.18	1202.67
9	2074	2192.56	8348.53	2489.29	912.96
10	2075	2338.56	10693.99	3164.73	1639.72
	Industry Average	**1382.49**	**7607.66**	**2283.02**	**876.17**

Note: Figures are in million.

Figure 3 shows the trend of NW, LF, TPI and FPI over the study period. It shows the highest growth of LF and TPI in the year 2073.

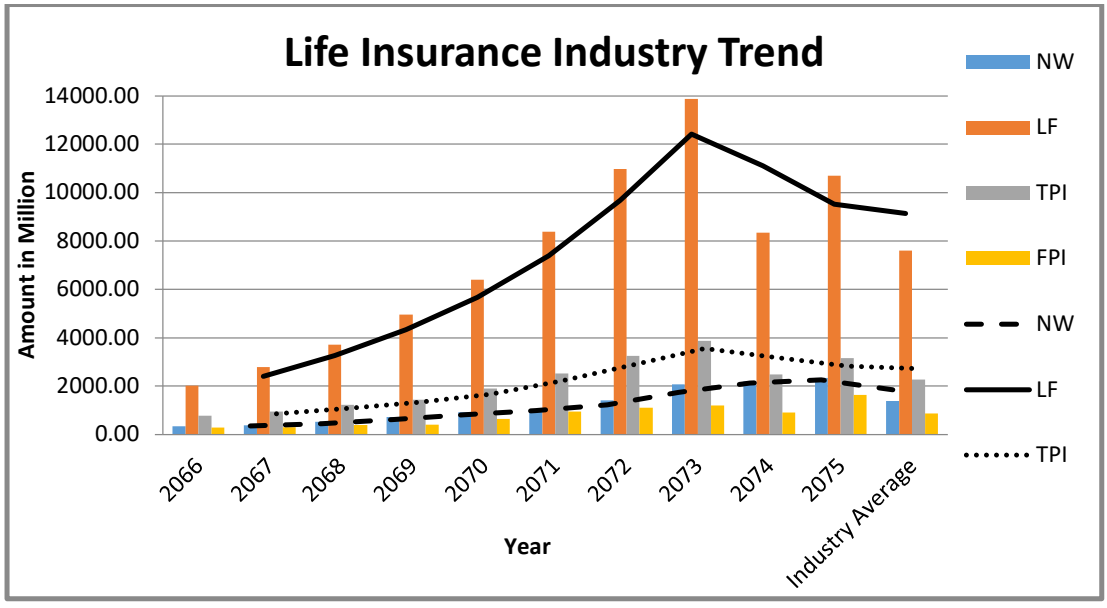

Figure 3. Trend analyses of NW, LF, TPI and FPI of life insurance industry in Nepal.

Looking at Figure 3 and Table 6, it is clear that NW, LF, TPI, FPI is increasing from 2066 BS to 2073 BS, whereas LF became maximum in the year 2073BS and started to fall

henceforth. This might be due to the addition of 10 new life insurance companies in the market after 2073 BS. Other variables like TPI and FPI are increasing at decreasing rate with respect to the past, whereas NW reached the maximum in the 2075 BS and increasing at decreasing rate. The reason behind this might be full operation of all new life insurance companies in the market after 2075 BS.

In general, the trend shows an overall growth in NW, LF, TPI and FPI over the period. If we examine the trend line in Figure 3, TPI and LF have similar growth pattern over the period. The reason behind this might be the predominant impact of TPI over LF in valuation of life insurance industry and a constant growth of NW over the period.

Table 7: Trend analysis of LR, ROA, RR and SR of life insurance industry

S.N.	Year (BS)	LR	ROA	RR	SR
1	2066	27.48	1.98	43.65	2.63
2	2067	32.18	5.31	46.81	2.22
3	2068	32.87	2.67	57.78	2.94
4	2069	37.04	4.14	85.17	4.92
5	2070	30.17	2.38	110.35	5.27
6	2071	32.23	1.53	114.42	5.24
7	2072	30.32	2.16	125.82	5.47
8	2073	29.91	1.97	115.92	6.40
9	2074	11.53	2.48	87.58	2.91
10	2075	7.59	2.48	94.72	2.68
	Industry Average	**23.91**	**2.64**	**88.82**	**3.83**

Note: Rates are in percentage.

Table 7 shows the trend of LR, ROA, RR and SR over the period and the overall industry average of these variables. Table 7 shows 23.91% LR, 2.641% ROA, 88.82% RR and 3.83% SR as the industry average. This indicates that the industry has 23.91 % lapse rate over the period with an average profitability of 2.64%. Similarly, industry has 88.82% of RR over the LR and 3.83% SR. Table 7 also shows overall industry trend of LR, SR, RR and ROA over the period. This trend is more clearly elucidated in Figure 4.

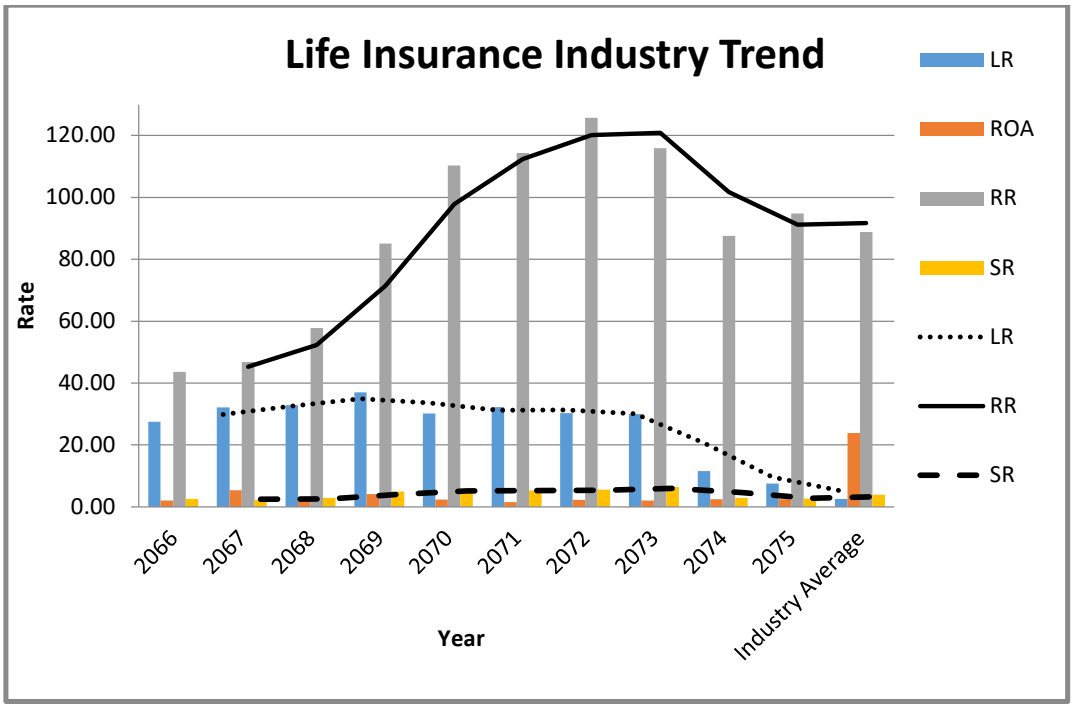

Figure 4*:* Trend analyses of LR, RR, ROA and SR in life insurance industry in Nepal.

If we examine the RR curve, it is increasing at increasing rate till 2070BS and increasing at decreasing rate till 2072BS reaching a maximum in 2073-74BS after which it started to decrease. The reason of this behavior of the RR curve might be due to the behavior of the LR curve, which shows an increasing trend till 2069 BS and constantly decreasing trend till 2073 BS and rapidly decreasing trend post 2074 BS. The reason behind overall behavior of the RR and LR curves might be due to the increasing awareness of life insurance industry followed by the realization on the importance of life insurance by the Nepalese following huge casualties due to the devastating earthquake in 2071 BS. Apart from that, the strong presence of regulatory authority and insurance company might be another reason.

If we examine the SR cure, it has slow growth rate of11.78% till 2069 BS and rapid growth rate at 67.34% from 2069 BS to 2070BS and a constant growth rate of 21.4% from 2071BS to 2073 BS and rapid fall at 58.12% from 2074 BS onwards. Overall, the SR rate of all insurance companies is falling down in life insurance industry. This might be due to the strong presence of regulatory authority as well as insurance awareness amongst policyholders.

4.3 Empirical estimation results

The empirical estimation results are reported in Table 8. The lagged value of each variable (NW, ROA, LF and TPI) was strongly positively significant in all models, which confirms the presence of strong persistence of these variables. The result showed that the previous years' values explained over 77 %of the current value, which indicates that the NW, ROA, LF and TPI shock likely has a prolonged effect in the insurance industry.

Table 8.GMM estimation results of four response variables against their respective lagged values and the lapse rate (LR).

Response variables	Predictor variables	Statistics
Net Worth (NW)	Lapse rate	0.06756 (0.94)
	Lagged NW	0.9867613∗∗∗(25.06)
	Sargan test p-value	0.9606
	A-B AR (2) test p-value	0.2691
Life Fund (LF)	Lapse rate	-0.1474065∗∗∗ (-2.76)
	Lagged LF	0.8620322∗∗∗(40.75)
	Sargan test p-value	0.9917
	A-B AR (2) test p-value	0.9604
Profitability (ROA)	Lapse rate	0.0641996∗∗∗(12.28)
	Lagged ROA	0.7772652∗∗∗(64.93)
	Sargan test p-value	0.9295
	A-B AR (2) test p-value	0.4927
Total Premium Income (TPI)	Lapse rate	-0.19244∗∗(-2.33)
	Lagged TPI	0.849579∗∗∗(35.63)
	Sargan test p-value	0.9356
	A-B AR (2) test p-value	0.596

Notes: *z-statistics are given in parentheses. ∗∗significant at α level 0.05, ∗∗∗significant at α level 0.01.*

The Sargan Test p-value for all models was more than 0.05, which indicate highly significant validity of this dynamic GMM model. Moreover, to check the fitness of the

GMM specification models, we applied two specification tests suggested by Arellano and Bond (1991), Arellano and Bover (1995) and Blundell and Bond (1998) in all models. Result of this test was also positive, stating fitness of the employed GMM model (Table 8).

According to the empirical estimation, the lapse rate was significantly negatively correlated with life fund (LF) and total premium income (TPI) with coefficients of -0.1474065 and -0.19244, respectively (Table 8). It might be because higher lapse rate reduces premium income of the insurer, resulting in less life fund provision. Similarly, higher lapse rate indicates that many people are not renewing their insurance contracts resulting in lesser TPI.

The lapse rate (LR) was significantly positively correlated with profitability (ROA). It is because, lapse rate refers to failure to pay premium or failure to continue the risk coverage of policy. Therefore, lower the provision of unexpired risk and life fund, higher is the profitability. Moreover, due to increased lapse rate, insurers are getting fund to invest with less expenses (less unexpired risk Provision/Life fund to policyholder). Apart from that, ROA has several other internal and external impacting factors, such as productivity, operation efficiency and investment opportunity.

The empirical estimation results for revival rate are reported in Table 9. The revival rate is significantly positively correlated with the profitability (ROA). The reason behind this might be that higher revival rate indicates higher renewal income resulting in more funds available for investment, thereby bringing positive cash inflow for the company. However, the revival rate did not show any significant association with net worth (NW), life fund (LF) and total premium income (TPI) (Table 9).

Table 9: GMM estimation results of four response variables against their respective lagged values and the revival rate (RR).

Response variables	Predictor variables	Statistics
Net Worth (NW)	Revival rate	-0.05359 (-0.68)
	Lagged NW	1.068807*** (16.62)
	Sargan test p-value	0.9339
	A-B AR (2) test p-value	0.3287
Life Fund (LF)	Revival rate	-0.0167 (-1.09)
	Lagged LF	1.039614*** (95.86)
	Sargan test p-value	0.9759
	A-B AR (2) test p-value	0.0424
Profitability (ROA)	Revival rate	0.031503*** (15.39)
	Lagged ROA	0.910329*** (39.99)
	Sargan test p-value	0.9399
	A-B AR (2) test p-value	0.4754
Total Premium Income (TPI)	Revival rate	-0.01109 (-0.65)
	Lagged TPI	1.047954*** (23.24)
	Sargan test p-value	0.9398
	A-B AR (2) test p-value	0.2132

Notes: *z-statistics are given in parentheses*. ***significant at α level 0.01*.

5. Conclusion and recommendations

The study was conducted with a view to examine the impact of lapse rate and revival rate on net worth, profitability, life fund, and total Premium income of life insurance industry of Nepal over the period of 2010 -2019AD. The study found 23.91% lapse rate, 2.64 % ROA, 88.82% revival rate and 3.83 % surrender rate over the period. The lapse rate is significantly negatively correlated with life fund (LF) and total premium income (TPI) with the model coefficients of -0.1474065 and -0.19244, respectively. This might be because higher lapse rate reduces the premium income of the insurer, resulting in less life fund provision. Similarly, higher lapse rate indicates that lots of people are not renewing their insurance contract resulting in lesser the TPI. Moreover, the empirical estimation shows that the lapse rate (LR) has a significant positive association with profitability (ROA). This might be because high lapse rate lowers the provision of unexpired risk and life fund resulting in higher amount of profitability. The revival rate is significantly positively correlated with the profitability (ROA). This might be because a higher revival rate increases the renewal income of a company resulting in more funds available for

investment for insurer thereby bringing a positive cash inflow for the company. However, the revival rate does not show any significant association with net worth (NW), life fund (LF) and total premium income (TPI).

This study gives strong foundation to guide policy in the areas of risk management and good governance in life insurance industry. Moreover, it gives a clearer picture of the Nepalese life insurance industry in terms of Lapse rate, revival rate, surrender rate, net worth, life fund, total premium income and first premium income. The findings enable concerned stakeholders to make strategies to invest and operate effectively in life insurance market. It also provides value addition to the regulators for risk-based supervision and enables them to locate the risk factor associated with lapse rate and surrender rate in the life insurance industry. The findings might be equally useful to the insurance companies to understand the contemporary conditions and emerging trends of surrender rate, lapse rate and revival rate. This makes them understand their real position in the market. This might help them to build strategic plans to improve operation their overall functioning. The study like this is expected to create awareness among the general readers and public about the importance of life insurance industries. This knowledge might inspire general public to increase investment in life insurance companies by purchasing life insurance policies or sharing investment in life insurance companies. There may be other behavioral and cognitive factors influencing lapse rate as well and profitability, Net-worth and life fund. For example, the policyholder behavior as well as people and organizational behavior, efficiency, strategic planning may also have also influenced the lapse rate, Net-worth, profitability, Life fund, revival rate as son. However, these factors are not covered in the current study. The behavioral impact of lapse policy on Life Insurance Company might be another topic for future research.

Reference

Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies, 58*(2), 277-297.

Arellano, M., & Bover, O. (1995). Another look at the instrumental variable estimation of error-components models. *Journal of Econometrics, 68*(1), 29-51.

Baltagi, B. (2008). *Econometric analysis of panel data* (4th Revised ed.): John Wiley & Sons.

Belth, J. M. (1968). The impact of lapse rates on life insurance prices. *Journal of Risk and Insurance, 35*(1), 17-34.

Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics, 87*(1), 115-143.

Bond, S. R. (2002). Dynamic panel data models: A guide to micro data methods and practice. *Portuguese Economic Journal, 1*(2), 141-162.

Fier, S. G., & Liebenberg, A. P. (2013). Life insurance lapse behavior. *North American Actuarial Journal, 17*(2), 153-167.

Holtz-Eakin, D., Newey, W., & Rosen, H. S. (1988). Estimating vector autoregressions with panel data. *Econometrica, 56*(6), 1371-1395.

Kiesenbauer, D. (2012). Main determinants of lapse in the German life insurance industry. *North American Actuarial Journal, 16*(1), 52-73.

Kuo, W., Tsai, C., & Chen, W. K. (2003). An empirical study on the lapse rate: The cointegration approach. *Journal of Risk and Insurance, 70*(3), 489-508.

Levin, A., Lin, C.-F., & Chu, C.-S. J. (2002). Unit root tests in panel data: Asymptotic and finite-sample properties. *Journal of Econometrics, 108*(1), 1-24.

Malik, H. (2011). Determinants of insurance companies profitability: an analysis of insurance sector of Pakistan. *Academic Research International, 1*(3), 315-321.

Mall, S., & Sahoo, S. (2015). Determinants of lapsation of life insurance policies: an empirical investigation for the Indian market. *International Journal of Financial Services Management, 8*(2), 133-147.

Nickell, S. (1981). Biases in dynamic models with fixed effects. *Econometrica, 49*(6), 1417-1426.

Parihar, S. S. (2020). Lapsation and sum assured of life insurance sector in India. *Prestige International Journal of Management and Research, 12*(1/2), 211-216.

Poufinas, T., & Michaelide, G. (2018). Determinants of Life Insurance Policy Surrenders. *Modern Economy, 9*(8), 1400-1422.

Roodman, D. (2006). How to do xtabond2: An introduction to 'difference'and 'system GMM in stata. *Center for Global Development Working Paper No. 103*.

Smith, M. L. (1982). The life insurance policy as an options package. *Journal of Risk and Insurance, 49*(4), 583-601.

Soto, M. (2009). System GMM estimation with a small sample. *Institut d'Anàlisi Econòmica (CSIC) Working Paper 780.09*.

Subashini, S., & Velmurugan, R. (2015). Lapsation in Life Insurance Policies. *International Journal, 3*(4), 29-39.

Subashini, S., & Velmurugan, R. (2016). A study on lapsation of insurers in life insurance policies in Coimbatore. *International Journal of Management Research and Reviews, 6*(5), 560.

Vidyavathi, K. (2013). Lapsation of life insurance policies: Literature review. *ZENITH International Journal of Business Economics & Management Research, 3*(11), 134-141.

Ward, D., & Zurbruegg, R. (2000). Does insurance promote economic growth? Evidence from OECD countries. *Journal of Risk and Insurance, 67*(4), 489-506.

Yu, L., Cheng, J., & Lin, T. (2019). Life insurance lapse behaviour: evidence from China. *The Geneva Papers on Risk and Insurance-Issues and Practice, 44*(4), 653-678.

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Factors Associated with Non-Enrollment in National Health Insurance Scheme in Kaski District, Nepal

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Abstract

Health insurance poses a vital role in developing countries, to attain an equitable health outcome to all citizens by ensuring universal health coverage. This study aims to assess the factors associated with non-enrollment in National Health Insurance Scheme (NHIS) in a setting of Nepal. A cross-sectional study was conducted among 492 households (246 non-enrolled and 246 enrolled) of Kaski district, Nepal from May to August 2020. Data were gathered from face-to-face interview. Data were entered in Epi data 3.1 and analysed by using statistical package for social sciences (SPSS16). Descriptive and inferential statistics were performed to analyze the data. The household without elderly family members were 2.06 times less likely to enroll in the scheme (AOR=2.060, CI=1.141-3.721, p<0.01). Similarly, non-enrollment increases with the decreasing wealth quintile of the family (AOR=4.312, CI=1.881-9.880, p<0.001). Families who perceived their family health status as fair was more likely to join the scheme than those as a good health status. Households who had poor or average knowledge on the scheme were almost five times more likely to non-enrollment (AOR=4.641, CI=2.841-7.582, p <0.001). Factors that determine the non-enrolment in NHIS are households had without elderly family members, poor wealth quintile, self-perceived good health status and poor knowledge on NHIS. Effective coordination from different stakeholders need to increase the health insurance coverage and increase the health literacy through the wide coverage of health communication program.

Key words: Factors, Kaski, Nepal, National health insurance scheme, non-enrolment,

1. BACKGROUND

The significance of National Health Insurance Scheme (NHIS) can be hardly exaggerated in the present age of health awareness. In the past 15 years, many countries have adopted universal health coverage (UHC) as an aspiration for national policy (Reich et al., 2016). Social health protection policies, such as health insurance, help expand affordable access to health care for vulnerable groups (Knepper et al., 2012). Health insurance is attracting more and more attention in low and middle-income countries as a means for improving health care utilization and protecting households against impoverishment from out-of-pocket expenditures (Spaan et al., 2012). According to WHO report on global spending on health, the concern for health spending is growing much rapidly, which is on an average 6% in low and middle-income countries, compared to high-income countries (4%) (WHO, 2019). Sustainable Development Goal (SDG), target 3.8 which clearly states "Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all" (Martin, 2019). Health insurance is a means of achieving universal health coverage (UHC) and SDG by 2030 in many countries including Nepal. The current total expenditure in health as a percentage of Gross Domestic Product (GDP) has been increasing i.e. 6.15 % in 2015 which is the highest over the 15 years Nepal (WHO, SEAR, 2017). Further, out of pocket (OOP) expenditure on health was 55.44% during 2018 in Nepal (World Bank, 2019). Recent data in Nepal shows that the enrollment status in the national health insurance is only 8% in 2019 among the total population of 26,494,504 (Health Insurance Board, 2020) . In Kaski district, non-enrollment is also high i.e. 20% and non-enrollment remains still high. (HIB Jan 13, 2020, Kaski Data). Increasing non-enrollment may lead to failure of the program and there might be several factors associated with it. Thus, this study aims to assess the factors affecting non-enrollment in NHIS in Kaski, Nepal.

1.1 Overview of NHIS in Nepal

National health insurance scheme is a social health security program run by government of Nepal, a family-based program to enable its citizens to access quality health care services without placing financial burden on them. The concept of health insurance in Nepal existed in many forms from community-based health insurance, community drug program, social health insurance and now national health insurance. This was possible with the support of many developmental partners. This is a voluntary based program and provides subsidy to the specific groups (100% exemption for ultra-poor, elderly population above 70 years old, severe disability, listed diseases and 50% exemption on premium amount to Female Community Health Volunteers (FCHVs) as envisaged in national health insurance policy (Nepal Law Commission, 2021).

2. METHODS

2.1 Study Setting

The study was conducted in rural and urban area of Kaski District, Nepal. Kaski lies in the Gandaki Province with its attitude ranging from 450 meters to 8091 meters from lowest to highest (District Administration Office, 2018). It has four rural municipalities with one

metropolitan city. The district is inhabited by multi- ethnic communities such as Gurung, Brahmin, Chhetri, Magar, Newar, among others. Of all the districts of Gandaki province, it has the highest number of population. Representative samples were taken from all the municipalities. According to the Health Management Information System (HMIS) the district's total population is 571032 of which 479963 inhabited in Pokhara metropolitan and remaining population live in four rural municipalities (Nepal in data, 2019). National health insurance has been implemented in this district since December, 2016. According to Health Insurance Board, Gandaki Province Office, enrollment in January 2020 was only 20% of the total population of the district.

2.2 Study Design, Sample Size and Data Collection

The study design was cross-sectional to gather the data. Sample size was determined by Daniel formula. The total sample obtained from the formula was 246. Then the total sample size was taken 492 (246=enrolled and 246=non-enrolled) households. To calculate sample size margin of error was taken 5%, proportion of enrolled population was 20% (Data taken from HIB, Gandaki Province Office) and Z statistic at 95% confidence level. Sampling was done by multistage probability sampling method. First Kaski district was taken, and then wards were selected by simple random method. Required sample size of the selected wards was determined based on the probability proportional to size (PPS). Enrolled and non-enrolled households from each selected wards were taken by simple random method.

Enrollment assistants of NHIS assisted the researcher to locate the required households. The inclusion criteria of the study were enrolled and non-enrolled households of selected wards of Kaski district who had been living for more than six months in that area. Likewise, an exclusion criterion was participants who were unable or not willing to participate in the study due to any reason were excluded. Data were collected through face-to-face interview from the household heads or spouses of household heads or family members who dealt with the financial or other household related works. Data collection tool was prepared based on the published and unpublished literatures and reports. Experts were consulted to design and finalize the tools. Pre-testing was done in similar setting on 10% (49 households) which were not included in the study wards of the research. The tool was slightly revised after pre-testing. The tool contained four sections, socio-demographic and economic characteristics, household morbidity and health status, knowledge, perception on NHIS and health service and enrollment status.

2.3 Data Management and Analysis

Data were entered in Epi data 3.1 and analysed using statistical package for social sciences (SPSS16). Descriptive analysis was performed to describe socio-demographic profile, health status and morbidity related characteristics, knowledge on NHIS, perception on NHIS and health services of participants and pattern of enrolled and non-enrolled people under NHIS. Pre-defined syntax on wealth quintile was used to categorize wealth quintile and inputs were given on the items like source of drinking water, toilet facility, floor quality, cheap and expensive utensils, number of sleeping room, TV, refrigerator, phone, bike, car and

electricity. Obtained ranges were used to allocate cut points, then based on the measured cut points each households' wealth quintile was categorized. Rooted in the hierarchy of cut-points households were divided into lowest quintile (Q1), second quintile (Q2), third quintile (Q3), fourth quintile (Q4) and fifth quintile or highest (Q5). Questions on knowledge were scored and each correct question has given 1 point and no points for incorrect responses. Then knowledge levels were categorized as good (3 or more correct answer) and average/poor (below ≤2 correct answer). Perception on NHIS and health services were summarized by using mean score of households' perceptions on the score of five point Likert scale. Below average score was considered "negative perception" and above average score was considered "positive perception". Inferential analysis (binary logistic regression) was applied to identify the most independent factors. The odds ratio, 95% CI and p values was reported while showing the association between outcome and independent variables. These results were considered significant at 5% level of significance.

3. RESULTS

Socio-demographic and Economic Characteristics

Table 1 represents the socio-demographic characteristics of the family. Most (77.2%) of the surveyed households were headed by males. On the other hand, higher proportions (32.1%) of the household heads were more than 60 years and the median age being 51 years ranging from 22 to 90 years. Nearly two thirds (65%) of the household head belonged to Brahmin/Chettri ethnic group and 9 in every 10 (92.5%) of the household ascribed to Hindu religion. Most (86.6%) of the household heads were married. More than half (55.9%) of the households had nuclear family type and three quarters (75.5%) of household had five or less family members. More than three quarters (82.3%) of the families lived in their own home and majority (36.4%) of the household head had secondary level. Of the 470 studied households, majority of the heads (24.3%) had agriculture as a main occupation. Likewise, majority (62.8%) of the family had 1-2 salary employed in the family and most (27.6%) of them had monthly income of NPR 10-30 thousand. In the same way, most (21%) of the families belonged to highest wealth quintile followed by (20.1%) third quintile and so on.

Table 1: Characteristics of Study Participants

Characteristics	Frequency (n)	Percentage (%)
Household Head Sex		
Male	380	77.2
Female	112	22.8
Household Head Age (Years)		
< 30	13	2.6
30 – 40	95	19.3
40 – 50	111	22.6
50 – 60	115	23.4
≥60	158	32.1
	Median= 51,Min= 22, Max= 90	
Ethnicity		
Brahmin/Chettri	320	65.0
Dalit	80	16.3

Characteristics	Frequency (n)	Percentage (%)
Janajati	77	15.7
Others (Giri, Thakuri Madhesi Muslim)	15	3.0
Marital Status		
Married	426	86.6
Widow/Widowed	61	12.4
Separated	5	1.0
Family Type		
Nuclear	275	55.9
Joint	211	42.9
Extended	6	1.2
Household Size		
≤5 members	372	75.6
≥6 members	120	24.4
Household Ownership		
Own home	405	82.3
Rented	74	15.1
Rent Free	13	2.6
Education Status of Household Head		
Cannot read and write	46	9.3
Informal education	68	13.8
Basic education	123	25.0
Secondary	179	36.4
Higher secondary	76	15.5
Occupation (n=470)		
Agriculture	114	24.3
Business	106	22.6
Service	97	20.6
Retired	54	11.5
Daily wages	37	7.9
Home maker	29	6.2
Abroad	18	3.8
Driving	12	2.5
Tailoring	3	0.6
Monthly income of the Family (NRs) (n=489)		
< 10000	23	4.7
10000 – 30000	135	27.6
30000 – 50000	134	27.4
50000 – 70000	88	18.0
≥70000	109	22.3
Median= 36400, Min= 2000, Max= 2050000		
Wealth Index		
Lowest Quintile (19-61)	100	20.3
Second Quintile (61-71)	97	19.7
Third Quintile(71-81)	99	20.1
Fourth Quintile(81-86)	93	18.9
Highest Quintile(≥86)	103	21.0

Health Status and Morbidity Related Characteristics

Majority (70.5%) of the families had no past illness events in the last six months. Nearly half (47.8%) had chronic illness or needed continuous health services in the families. Majority (51.0%) families perceived their health as a good followed by 42.7% fair health status.

Knowledge on NHIS

Most (93.3%) of families were aware about the existence NHIS. Among the families who were aware of NHIS, 52.3% were aware through Enrollment Assistants followed by 32.2% through friends/neighbor/relatives. Among the enrolled households more than half (52.3%) had poor/average knowledge and rest of the others had good knowledge on it

Perception on NHIS

Most (83.1%) of the household had positive perception on NHIS while rest of them had negative perception on it.

Reasons of Enrollment, Discontinuation of Membership and Non-enrollment

Table 2 represents the reasons of enrollment, discontinuation of membership and non-enrollment. Among enrolled families, majority 67.1% joined the scheme because premium fee is low compared to user fee followed by 39.8% illness and injuries occurs frequent in the family. Of the enrolled families who were not willing to continue their membership, majority (61.5%) of them said there was long waiting time followed by (52.8%) no adequate medicines and few (15.4%) said the NHIS process was tedious, there was unequal behavior in the hospital, had no near service point and covered elsewhere. Similarly, of the non-enrolled family majority (26.0%) were not enrolled because they felt family members were mostly healthy and no need to be enrolled followed by (22.8%) not interested in the scheme.

Table 2: Reasons of Enrollment, Discontinuation of Membership and Non-enrollment

Reasons	Frequency (n)	Percentage (%)
***Reasons of Enrollment (n=246)**		
Premium is low compared to user fee	165	67.1
Illness and injury occurs frequent in family	98	39.8
Risk protection and future security	28	11.4
Utilize health services	20	8.1
Utilize government free service	18	7.3
Support others	10	4.1
Forced by EA	8	3.3
Others (Sponsor, neighbor)	4	1.6
Enrolled Households who were not willing to continue their membership		10.6
***Reasons of Discontinuation of Membership (n=26)**		
Long waiting time	16	61.5
Not adequate medicines	14	53.8
No good health services	13	50.0
Not utilized NHIS	8	30.8
Others (tedious, unequal behavior)	4	15.4
***Reasons of Non-enrollment (n=246)**		
Mostly healthy and no need to be enrolled	70	26.0
Not interested in the scheme	56	22.8
Covered elsewhere	40	16.3
Not aware about scheme	38	15.4
Family problem	38	15.4
Not satisfied with the services	30	12.2
Bad compliments about the scheme	25	10.2

Cannot afford premium	24	9.8
EA did not come to enrol	9	3.7
Service point far	3	1.2
Others (Senior citizens, HIB office closed)	2	3.3
Non-enrolled household future plan to join the NHIS	135	54.9

*Multiple Responses

Factors Associated with Non-enrollment

Table 3 illustrates having no elderly population aged 60 years and above (COR=2.76, CI=1.89-4.01, p<0.001), non-privileged ethic caste groups (p<0.001), non-hindu religion (COR=0.39, CI=0.19-0.82, p<0.01), nuclear family type (COR=2.79, CI=1.93-4.40, p<0.001) and less household size (COR=2.25, CI=1.47-3.35, p<0.001) showed statistical significant association with non-enrollment while sex of household head, presence of children aged 0-5 years in the family, presence of children aged 6-16 years in the family and household head marital status did not show any significant association with non-enrollment. Decreasing educational level of household head, not having self-owned home (COR= 0.38, CI=0.23-0.67, p<0.001) and daily earners workers (p<0.001), less household monthly income, lowest wealth quintile were associated with non-enrollment.

Table 3. Factors Associated with Non-enrollment

Variables	**Enrollment Status**		**COR**	**CI**	**p value**
	No(%)	**Yes (%)**			
Sex of HH					
Male	192 (50.5)	188 (49.5)	**1.09**	**0.72-1.67**	**0.667**
Female	54 (48.2)	58 (51.8)			
Age group of HH					
<30	9 (69.2)	4 (30.8)			**<0.001***
30-40	63 (66.3)	32 (33.7)			
40-50	61 (55.0)	50 (45.0)			
50-60	57 (49.6)	58 (50.4)			
≥60	56 (35.4)	102 (64.6)			
Presence of children aged 0-5 years					
None	181 (51.1)	173 (48.9)	**1.17**	**0.79-1.74**	**0.422**
≥ 1	65 (47.1)	73 (52.9)			
Presence of elderly above 60 years					
None	179 (59.7)	121 (40.3)	**2.76**	**1.89-4.01**	**<0.001***
≥ 1	67 (34.9)	125 (65.1)			
Ethnicity					
Brahmin/Chhetri	124 (38.8)	196 (61.3)			**<0.001***
Dalit	59 (73.8)	21 (26.2)			
Janajati	54 (70.1)	23 (29.9)			
Others	9 (60.0)	6 (40.0)			
Religion					
Hindu	220 (48.4)	235 (51.6)	**0.39**	**0.19-0.82**	**0.01***
Non-Hindu	26 (70.3)	11 (29.7)			
Marital status					
Married	212 (49.8)	214 (50.2)	**0.93**	**0.55-1.56**	**0.79**
Widowed/Separated	34 (51.5)	32 (48.5)			
Family type					
Nuclear	168 (61.1)	107 (38.9)	**2.79**	**1.93-4.40**	**<0.001***
Joint/Extended	78 (35.9)	139 (64.1)			
HH size					
≤5 members	204 (54.8)	168 (45.2)	**2.25**	**1.47-3.45**	**<0.001***
≥6 members	42 (35.0)	78 (65.0)			
HH education status					
Cannot read and write	20 (43.5)	26 (56.5)			**0.004***

Variables	Enrollment Status		COR	CI	p value
	No(%)	Yes (%)			
Informal education	31 (45.6)	37 (54.4)			
Basic education	80 (65.0)	43 (35.0)			
Secondary	83 (46.4)	96 (53.6)			
Higher secondary	32 (42.1)	44 (57.9)			
HH ownership					
Self-owned	186 (45.9)	219 (54.1)	**0.38**	**0.23-0.67**	**<0.001***
Rented/Rent free	60 (69.0)	27 (31.0)			
HH occupation					
Agriculture	50 (43.9)	64 (56.1)			**<0.001***
Business	52 (49.1)	54 (50.9)			
Service	44 (45.4)	53 (54.6)			
Retired	21 (38.9)	33 (61.1)			
Daily wages	35 (94.6)	2 (5.4)			
Home maker	10 (34.5)	19 (65.5)			
Abroad	15 (83.3)	3 (16.7)			
Driving	8 (66.7)	4 (33.3)			
Sewing	2 (66.7)	1 (33.3)			
HH Monthly income (NRs)					
< 10000	17 (73.9)	6 (26.1)			**0.005***
10000 - 30000	78 (57.8)	57 (42.2)			
30000 - 50000	69 (51.5)	65 (48.5)			
50000 – 70000	37 (42.0)	51 (58.0)			
≥70000	44 (40.4)	65 (59.6)			
Wealth quintile					
Lowest Quintile	76 (76.0)	24 (24.0)			**<0.001****
Second Quintile	55 (56.7)	42 (43.3)			
Third Quintile	40 (40.4)	59 (59.6)			
Fourth Quintile	35 (37.6)	58 (62.4)			
Highest Quintile	40 (38.8)	63 (61.2)			

Logistic Regression Analysis

Table 4 represents the findings of logistic regression analysis. While adjusting those associated variables, factors associated with non-enrollment found to be presence of elderly population in the family, wealth quintile, self-perceived family health status and knowledge on NHIS. Data showed that having no elderly population in the family were 2.06 times less likely to enroll in the scheme (AOR=2.060, CI=1.141-3.721, p<0.01). Similarly, the odds of non-enrollment increases with the decreasing wealth quintile of family. Family who perceived their family health status fair was more likely to join the scheme. Likewise, knowledge also influences the willingness to enroll in the scheme. Households who had poor or average knowledge on the scheme were almost 5 times more likely to non-enrollment (AOR=4.641, CI=2.841-7.582, p<0.001).

Table 4: Unadjusted and Adjusted Odds Ratio using Logistic Regression Analysis

			Enrollment in NHIS			
Variable	UOR	95% CI	p value	AOR	95%CI	p value
Age of HH (years)						
< 40 (Ref)	1			1		
≥ 40 years	2.414	1.543-3.777	<0.001	1.172	0.589-2.333	0.651
Presence of elderly						
None (Ref)	1			1		
≥ 1	2.760	1.895-4.019	<0.001	2.060	1.141-3.721	**0.017**
Ethnicity						
Underprivileged	1			1		

			Enrollment in NHIS			
Variable	UOR	95% CI	p value	AOR	95%CI	p value
(Ref)						
Privileged	3.857	2.589-5.746	<0.001	1.754	0.981-3.135	0.058
Religion						
Non-Hindu (Ref)	1			1		
Hindu	2.525	1.218-5.232	0.013	2.030	0.749-5.499	0.164
Family type						
Nuclear (Ref)	1			1		
Joint/extended	2.798	1.936-4.044	<0.001	1.410	0.747-2.662	0.290
HH size						
≤ 5 (Ref)	1			1		
≥ 6	2.255	1.471-3.457	<0.001	1.034	0.457-2.342	0.936
HH education						
Below secondary (Ref)	1			1		
Above secondary	1.505	1.054-2.147	0.024	1.086	0.625-1.887	0.770
HH ownership						
Rented/rent free (Ref)	1			1		
Self-owned	2.616	1.596-4.920	<0.001	1.050	0.511-2.160	0.894
HH occupation						
Informal (Ref)	1			1		
Formal	1.548	1.048-2.287	0.028	0.758	0.445-1.289	0.306
HH monthly income						
<15000 (Ref)	1					
≥ 15000	1.410	0.858-2.317	0.175			
HH monthly expenditure						
<15000 (Ref)	1					
≥ 15000	1.554	1.013	2.385			
Wealth quintile						
Lowest quintile (Ref)	1			1		
Second quintile	2.418	1.314-4.450	0.005	2.062	0.942-4.512	0.070
Third quintile	4.671	2.539-8.594	<0.001	3.466	1.538-7.813	**0.003**
Fourth quintile	5.248	2.818-9.772	<0.001	3.905	1.726-8.835	**0.001**
Fifth quintile	4.987	2.720-9.145	<0.001	4.312	1.881-9.880	**0.001**
Past illness events						
No (Ref)	1			1		
Yes	1.774	1.196-2.629	0.004	1.275	0.760-2.138	0.357
Continuous health services needed						
No (Ref)	1			1		
Yes	2.009	1.465-3.009	<0.001	1.206	0.716-2.030	0.481
Self-perceived health status						
Good (Ref)	1			1		
Fair	2.426	1.674-3.517	<0.001	2.829	1.662-4.817	**<0.001**
Poor	1.138	0.411-3.148	0.804	1.707	0.401-7.264	0.469
Knowledge on NHIS						
Poor/average (Ref)	1			1		
Good	4.856	3.260-7.233	<0.001	4.641	2.841-7.582	**<0.001**
Perception on NHIS						
Negative (Ref)	1			1		
Positive	2.242	1.367-3.677	0.001	1.764	0.927-3.358	0.084
Perception on HS						
Negative (Ref)	1					
Positive	0.706	0.485-1.029	0.070			

4. Discussion

The objective of the study was to assess the factors associated with non-enrollment. It was found that the major factors associated non-enrollment were presence of elderly population in the home, wealth quintile, self-perceived family health status and knowledge on NHIS.

The result of the study found no any significant association of household head age with the non-enrollment. This might be the fact that health is everyone's concern and it should not be limited by the household head age. But the many study revealed that non-enrollment decreases with decreasing age group of household heads (Jude et al., 2018; Manortey et al., 2014; Nsiah-Boateng et al., 2019). Similarly, proportion of male and female members in the families were not predictors of non-enrollment. The reason might be family health concern is not abide by the gender role. However, such studies do not exist to explore such association.

Having no elderly population aged 60 years and above in the family was a significant factor of non-enrollment in the NHIS. This might be due to the fact that younger age groups feel that they have less health problems as compared to elder population. Other reasons might be elderly population wants future health security in their life and Government of Nepal is also protecting elder population by subsidizing the premium of geriatric population aged above 70 years. Existing literatures of Nepal and Ghana are similar with the present study (Adhikari et al., 2019; Badu et al., 2018; Jehu-Appiah et al., 2011) however another literature of the Nepal showed the contradictory result (Ghimire et al., 2019).

This study found that ethnicity was not predictor of non-enrollment in the scheme. This could be due to the geographical setting and population characteristics. Nevertheless findings from other studies say that underprivileged ethnic group has higher non-enrollment (Adhikari et al., 2019; Ghimire et al., 2019). Likewise, present study found religion has no association with non-enrollment. This result is consistent with the findings of other studies (Adhikari et al., 2019; Paudel, 2019). Similarly, family type and household type were not predictors of enrollment. This findings is not in line with the other studies (Jehu-Appiah et al., 2011; Nsiah-Boateng et al., 2019; Paudel, 2019; Sarker et al., 2017). Furthermore, in this study household ownership was not a significant factor of non-enrollment. This might be the fact that all want future security in health and that is not restricted by whether people lives in self-owned home or other homes. This finding is coherent with the study of Ethiopia (Jehu-Appiah et al., 2011). Present study found education as a not important factor of non-enrollment. But other studies showed contrast result that odds of enrolling increases with the educational level (Acharya et al., 2019; Adhikari et al., 2019; Jehu-Appiah et al., 2011; Jude et al., 2018; Manortey et al., 2014; Paudel, 2019).

Facts from various studies have shown the positive association between socio-economic status and non-enrollment (Ghimire et al., 2019; Jehu-Appiah et al., 2011; Mirach et al., 2019; Paudel, 2019). The present study also showed that non-enrollment increases with the decreasing socio-economic status in the society. In Nepal there is a provision of subsidizing poor and ultra-poor population in the scheme but due to delay in governmental procedure of identifying and distributing poverty card, poor populations are left behind. Those populations are not able to pay the premium amount and are deprived of utilizing the necessary health services when they are in need. Another reason might be they are not aware about the existence of such scheme. The result of present finding contradicts to the findings of other

study of Nepal, which found that non-enrollment was higher in rich wealth quintile (Acharya et al., 2019). This differences might be due to the study setting because present study is conducted in urban and semi-urban area whereas the other study was conducted in NHIS piloted districts which may represent remote areas of Nepal so that data represents the more variant population characteristics than present study.

Previous study finding showed that past illness events in the household were positively associated with subscription to NHIS (Ghimire et al., 2019). However present study reveals contrast result. Correspondingly previous literatures showed having no chronic illness in the family increases non-enrollment (Ghimire et al., 2019; Mirach et al., 2019; Paudel, 2019). But this study didn't found any significant association. Self-perceived health status is an influencing factor of non-enrollment in NHIS. This study finding showed that the odds of non-enrollment was higher among those household who perceived their family health status as a good. This result is consistent with the finding of Kenya and Ethiopia (Mirach et al., 2019; Otieno et al., 2019). This is obvious that if household members do not have any health problems, they would never prefer to be enrolled until and unless they have severe health problems and may have a thinking that they should no waste money unnecessarily. Problem is that such people failed to understand the nature of the program. As we know, the nature of the NHIS in Nepal is contributory i.e. taking from rich and giving to poor and from healthy to unhealthy. This unawareness and misunderstanding of the program features might be one of the major reason of non-enrollment.

This study found that statistical significant association between perception on NHIS and non-enrollment. Nonetheless previous study presented the positive perception on NHIS tends to more enrollment (Jehu-Appiah et al., 2012). Another factor which affects the enrollment is knowledge about the scheme. Household having poor knowledge about the scheme have higher non-enrollment rate. This study is in line with the results of other studies of Nigeria (Ibukun et al., 2013; Yusuf et al., 2019). It is not easy to enroll each and every one until and unless they understand the depth of the program. Knowledge levels vary according to their educational level, need factor, individual interest, availability and accessibility of related advertisement and so on.

5. Conclusion

The non-enrolled households, nearly half of them had no future plan about joining the scheme. Major reasons of non-enrollment in the scheme are mostly healthy and no need to be enrolled in the scheme, not interested in the scheme, covered elsewhere, not aware about the scheme, family problems, not satisfied with the health services and bad compliments about the scheme from the enrolled. Besides that, factors that determine the non-enrolment in NHIS are households had without elderly family members, poor wealth quintile, self-perceived good health status and poor knowledge on NHIS.

A comprehensive social and behavior change communication program is necessary to change the perception of population towards health insurance. Consideration should also be given to mandatory enrollment of all family members. It is crucial to bring the poor population under the scheme to reduce the non-enrollment gap between rich and poor. Effective coordination from different stakeholders for the increase the health insurance coverage and ensure better quality of health services.

Reference

Acharya, D., Devkota, B., & Wagle, B. P. (2019). Factors Associated to the Enrollment in Health Insurance: An Experience from Selected Districts of Nepal. *Canadian Center of Science and Education*, *15*(2), 90–99. https://doi.org/10.5539/ass.v15n2p90

Adhikari, N., Wagle, R. R., Adhikari, D. R., Thapa, P., & Adhikari, M. (2019). Factors Affecting Enrolment in the Community Based Health Insurance Scheme of Chandranigahapur Hospital of Rautahat District. *Journal of Nepal Health Research Council*, *16*(41), 378–384. https://doi.org/10.33314/jnhrc.v16i41.1581

Badu, E., Agyei-Baffour, P., Ofori Acheampong, I., Preprah Opoku, M., & Addai-Donkor, K. (2018). Households Sociodemographic Profile as Predictors of Health Insurance Uptake and Service Utilization: A Cross-Sectional Study in a Municipality of Ghana. *Advances in Public Health*, *2018*, 1–13. https://doi.org/10.1155/2018/7814206

District Administration Office. (2018). *Brief District Information (Kaski)*. https://daokaski.moha.gov.np/page/ja-l-l-ka-sa-ka-shha-pa-ta-para-caya-2

Ghimire, P., Sapkota, V. P., & Poudyal, A. K. (2019). Factors Associated with Enrolment of Households in Nepal's National Health Insurance Program. *International Journal of Health Policy and Management*, *8*(11), 636–645. https://doi.org/10.15171/ijhpm.2019.54

Health Insurance Board. (2020). *District wise insurees*. http://dashboard.hib.gov.np:81/

Ibukun, O. A., Olatona, F. A., Oridota, E. S., Okafor, I. P., & Onajole, A. T. (2013). Knowledge and uptake of community-based health insurance scheme among residents of Olowora, Lagos. *Journal of Clinical Sciences*, *10*(2), 8.

Jehu-Appiah, C., Aryeetey, G., Agyepong, I., Spaan, E., & Baltussen, R. (2012). Household perceptions and their implications for enrolment in the National Health Insurance Scheme in Ghana. *Health Policy and Planning*, *27*(3), 222–233. https://doi.org/10.1093/heapol/czr032

Jehu-Appiah, C., Aryeetey, G., Spaan, E., Hoop, T. de, Agyepong, I., & Baltussen, R. (2011). Equity aspects of the National Health Insurance Scheme in Ghana: Who is enrolling, who is not and why? *Social Science & Medicine*, *72*(2), 157–165. https://doi.org/10.1016/j.socscimed.2010.10.025

Jude, A. C., Atanga, S. N., Falang, D. C., & Nso, E. H. (2018). Factors associated with Non Enrollment into Community Based Health Insurance Schemes in the Bamenda Health

District, Cameroon. *International Journal of Public Health and Epidemiology Research*, *4*(2), 12.

Knepper, C., Charlet, D., Jain, N., & O'Connell, T. (2012). *National health insurance in Asia and Africa: Advancing equitable Social Health Protection to achieve universal health coverage*. unicef. https://www.unicef.org/socialpolicy/files/National_health_insurance_in_Asia_and_Africa-Final-22MAY12.pdf

Manortey, S., Alder, S., Crookston, B., Dickerson, T., VanDerslice, J., & Benson, S. (2014). Social Deterministic Factors to Participation in the National Health Insurance Scheme in the Context of Rural Ghanaian Setting. *Journal of Public Health in Africa*, *5*(1). https://doi.org/10.4081/jphia.2014.352

Martin. (2019). Goal 3: Ensure healthy lives and promote well-being for all at all ages. *United Nations Sustainable Development*. https://www.un.org/sustainabledevelopment/health/

Mirach, T. H., Demissie, G. D., & Biks, G. A. (2019). Determinants of community-based health insurance implementation in west Gojjam zone, Northwest Ethiopia: A community based cross sectional study design. *BMC Health Services Research*, *19*. https://doi.org/10.1186/s12913-019-4363-z

Nepal in data. (2019, March 6). Excel-Estimated Target Population for FY 2075/76. *Excel-Estimated Target Population For FY 2075/76*. https://nepalindata.com/resource/excel-estimated-target-population-fy-207576/

Nepal Law Commission. (2021, January 13). *Health Insurance Board Regulation 2019*. https://shs.gov.np/. https://hib.gov.np/en/detail/health-insurance-board-regulation

Nsiah-Boateng, E., Prah Ruger, J., & Nonvignon, J. (2019). Is enrolment in the national health insurance scheme in Ghana pro-poor? Evidence from the Ghana Living Standards Survey. *BMJ Open*, *9*(7), e029419. https://doi.org/10.1136/bmjopen-2019-029419

Otieno, P. O., Wambiya, E. O. A., Mohamed, S. F., Donfouet, H. P. P., & Mutua, M. K. (2019). Prevalence and factors associated with health insurance coverage in resource-poor urban settings in Nairobi, Kenya: A cross-sectional study. *BMJ Open*, *9*(12), e031543. https://doi.org/10.1136/bmjopen-2019-031543

Paudel, D. R. (2019). Factors Affecting Enrollment in Government Health Insurance Program in Kailali District. *Journal of Nepal Health Research Council*, *17*(3), 388–393. https://doi.org/10.33314/jnhrc.v17i3.2026

Reich, M. R., Harris, J., Ikegami, N., Maeda, A., Cashin, Araujo, E. C., Takemi, K., & Evans, T. G. (2016). Moving towards universal health coverage: Lessons from 11 country studies | Elsevier Enhanced Reader. *The Lancent*, *387*(10020), 811–816. https://doi.org/10.1016/S0140-6736(15)60002-2

Sarker, A. R., Sultana, M., Mahumud, R. A., Ahmed, S., Islam, Z., Morton, A., & Khan, J. A. M. (2017). Determinants of enrollment of informal sector workers in cooperative based health scheme in Bangladesh. *PLOS ONE*, *12*(7), e0181706. https://doi.org/10.1371/journal.pone.0181706

Spaan, E., Mathijssen, J., Tromp, N., McBain, F., ten Have, A., & Baltussen, R. (2012). The impact of health insurance in Africa and Asia: A systematic review. *Bulletin of the World Health Organization*, *90*(9), 685–692. https://doi.org/10.2471/BLT.12.102301

WHO. (2019, January 24). *Universal health coverage (UHC)*. Universal Health Coverage (UHC). https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)

WHO, SEAR. (2017). *Health financing profile 2017: Nepal*. WHO, Regional office for SEAR. https://apps.who.int/iris/handle/10665/259643.

World Bank. (2019). *Out-of-pocket expenditure (% of current health expenditure) | Data*. https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS

Yusuf, H. O., Kanma-Okafor, O. J., Ladi-Akinyemi, T. W., Eze, U. T., Egwuonwu, C. C., & Osibogun, A. O. (2019). Health Insurance Knowledge, Attitude and the Uptake of Community-Based Health Insurance Scheme among Residents of a Suburb in Lagos, Nigeria. *West African Journal of Medicine*, *36*(2), 103–111.

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