Life Satisfaction and Insomnia among Elderly Community Dwellers of Lalitpur, Nepal

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ABSTRACT

Introduction
Life satisfaction during elderly is essential in ageing process. Globally, insomnia is a problem that degrades the health of elderly people, which also interferes with the quality of life.

Methods
A descriptive cross-sectional study was conducted to identify life satisfaction and insomnia among 501 community dwellers elderly of Lalitpur by using structured interview schedule on socio-demographic information, Satisfaction with Life Scale (SWLS) to measure a life satisfaction and Pittsburgh Insomnia Rating Scale (PIRS) to identify the prevalence of insomnia.

Results
Data was edited, classified, and coded manually. Then, data entry and data cleaning were done using Epi data software and data analysis was done using SPSS software version 16. Descriptive and inferential statistics were used to analyze data. The study showed that 31.9% and 35.7% of respondents were highly satisfied and satisfied with their life respectively. However, 6% and 0.6% of respondents were dissatisfied and extremely dissatisfied with their life respectively. Study reveals that 50.5% of respondents had insomnia. Ethnicity, current job status, and health problems during night sleep were significantly associated with life satisfaction. Similarly, age, marital status, educational status, current job status, current physical health problems, presence of disease, taking medication at present and health problems during night sleep were significantly associated with insomnia.

Conclusion
Most elderly people were satisfied with their life, but majority of them suffered from insomnia. Therefore, it is necessary to plan awareness program regarding life satisfaction and insomnia by concerned authority to help elderly to stay healthy and improve their quality of life.

Keywords: *Elderly, insomnia, life satisfaction*

INTRODUCTION

Life satisfaction is very personal experience which determine quality of life of individual.[1] It is the process of viewing one's life as a whole rather than what he/she is feeling right now which is linked with health and morbidity.[2]

Insomnia is continuous difficulty with sleep initiation, duration, quality occurring despite getting time and chance and results in difficulty in day time activities but not falling asleep even in daytime.[3] There is no accepted standard on sleep need of elderly but It may depend on patient's perception and functional status.[4] So, this study helps to identify the

level of life satisfaction and prevalence of insomnia among elderly.

METHODS

A descriptive cross sectional research design was used to identify life satisfaction and insomnia among community dwellers elderly aged 60 years and above in Lalitpur Metropolitan city and Godawari Municipality former Karyabinayak Municipality of Lalitpur district. Ethical approval was taken from Institutional Review Board of Institute of Medicine, Mahajgunj, Kathmandu. This area was selected purposively. The sample size was 501 elderly after calculating by taking prevalence of 50% and 5% marginal error. Non probability proportional quota sampling technique was used to select sample from five strata. Respondents who were available and willing to participate during the study were included in the study but who were not able to respond properly, who were taking sleeping pills at present and had severe problem of hearing or speaking were excluded in this study. Structured interview schedule was used to collect required data which consist of three parts namely part I socio demographic information, part II Satisfaction with Life Scale (SWLS) and Part III Pittsburgh

Insomnia Rating Scale respectively. Content validity of the instrument was established by literature review and research experts. The questionnaire was developed in English language and then translated into Nepali language. Back translation was done to identify the conceptual equivalence, linguistic equivalence and semantic equivalence of the instrument. Pretesting of translated instrument was done among 10% of the actual sample size in Bajrabarahi of Godawari Municipality, Lalitpur by using Nepali version of structured interview schedule. Reliability of the instrument was tested using Cronbach's Alpha for life satisfaction and insomnia related statements which gave excellent value of 0.962 and 0.992 respectively. Necessary modifications were done based on the findings of pretesting. Before conducting the research, formal administrative approval was obtained from administration of Lalitpur Nursing Campus and authority of Lalitpur Metropolitan city and Godawari Municipality. Verbal informed consent was sought from each participant. Anonymity and confidentiality was strictly maintained throughout the study. Along with researchers, enumerators were allocated for data collection from the period of 1st to 30th April, 2017. Data were analyzed

Table 1. Socio demographic characteristics of the respondents

Characteristics	Frequency	Percent
		n=501
Age of elderly		
<65	155	30.9
65-74	212	42.3
75-84	96	19.2
≥ 85	38	7.6
Mean age in years ± SD	**70.23 ± 8.287**	
Gender		
Female	274	54.7
Male	227	45.3
Marital Status		
Married	317	63.2
Widow	125	25
Widower	50	10
Unmarried	7	1.4
Divorced	2	0.4
Educational Status		
Illiterate	297	59.3
Read and Write Only	144	28.8
Primary Level	18	3.6
Secondary Level	25	4.9
Higher Secondary Level	6	1.2
Bachelor and Above	11	2.2
Current Job Status		
Not Working	428	85.4
Working	73	14.6
Financial Dependency on Other		
Yes	409	81.6
No	92	18.4
Physical Health Problems		
Yes	331	66.1
No	170	33.9
Disease		
Yes	266	53.1
No	235	46.9
Health Problems during Night Sleep		
Yes	288	57.5
No	213	42.5

Table 2: Level of satisfaction and insomnia of respondents

n=501

Characteristics	Frequency	Percent
Life satisfaction level		
Highly satisfied (30-35)	160	31.9
Satisfied (25-29)	179	35.7
Average Level of Satisfaction (20-24)	82	16.4
Slightly Below Average Level of Life Satisfaction (15-19)	45	9
Dissatisfied (10-14)	32	6.4
Extremely dissatisfied (5-9)	3	0.6
Insomnia		
Present	253	50.5
Absent	248	49.5

Note. Insomnia Present = Score > 20. Insomnia Absent = Score ≤ 20 (Moul et al., 2002).

using statistical package for social science (SPSS) version 16. Descriptive and inferential statistics were used to for analyzing the data.

RESULTS

Table 1 shows that more than one third (42.3%) of the respondents were aged 65-74 years. Majority (54.7%) of the respondents were female. Majority (63.2%) of the respondents were married. Most (59.3%) of the respondents were illiterate. Majority (85.4%) of the respondents were not working. More than three quarter (81.6%) of the respondents were financially dependent.

More than half (66.1%) of the respondents had some sort of physical health problems. Among them 53.1% suffered from disease such as hypertension, respiratory disease, diabetes, etc. Also above table shows that 57.5% had health problems like nocturia, cough, pain, etc during night sleep.

Table 2 depicts that less than one third (31.9%) of the respondents were highly satisfied and

Table 3 *Association between Socio-demographic Variables and Life Satisfaction*

n = 501

Variables	Life Satisfaction				X^2 Value	*p* -value
	Dissatisfied		Satisfied			
	N	(%)	*N*	(%)		
Age group in years						
Below 75	26	7.1	341	92.9	0.02	.886
Above or Equal to 75	9	6.7	125	93.3		
Ethnicity						
Janajati	18	7.0	240	93.0	17.34	.000* [c]
Brahman	10	4.4	215	95.6		
Others[a]	7	38.9	11	61.1		
Religion						
Hindu	34	7.6	416	92.4	1.43	.232[d]
Buddhist/Christian	1	2.0	50	98.0		
Marital Status						
Married	20	6.3	297	93.7	0.61	.435
Others[b]	15	8.2	169	91.8		
Educational Status						
Illiterate	25	8.4	272	91.6	2.30	.129
Literate	10	4.9	194	95.1		
Current Job Status						
Not Working	35	8.2	393	91.8	6.42	.011* [d]
Working	-	-	73	100.0		
Financially Dependency on others						
No	5	5.4	87	94.6	0.42	.518
Yes	30	7.3	379	92.7		

Note. Satisfied: Aggregate of highly satisfied, satisfied, average level of satisfaction, slightly below average level of satisfaction; Dissatisfied: Aggregate of dissatisfied and extremely dissatisfied. [a]: Dalit/Madhesi. [b]: Unmarried/widow, widower, divorced. [c]: Value of likelihood ratio. [d]: Yates correction. * = *p*-value significant at ≤ .05 level.

35.7 percent of respondents were satisfied with their life. Above table also displays that more than half (50.5%) of the respondents had insomnia.

Table 3 depicts that there is significant association of ethnicity (X2 = 17.34, p = .000), current job status(X2 = 6.42, p = .011) with life satisfaction.

Table 4 reveals that there is significant association between health problems during

Table 4 *Association of Current Physical Health Problems, Presence of Disease, Taking Medication at Present, Health problems during Night with Life Satisfaction*

n =501

Variables	Life Satisfaction				X^2 Value	*p*-value
	Dissatisfied		Satisfied			
	N	(%)	*N*	(%)		
Current Physical Health Problems						
Yes	28	8.5	303	91.5		
No	7	4.1	163	95.9	3.26	.071
Presence of Disease						
Yes	23	8.6	243	91.4		
No	12	5.1	223	94.9	2.41	.121
Taking Medication at Present						
Yes	19	7.9	223	92.1		
No	16	6.2	243	93.8	0.54	.463
Health Problems During Night Sleep						
Yes	29	10.1	259	89.9		
No	6	2.8	207	97.2	9.91	.002*

Note. Satisfied: Aggregate of highly satisfied, satisfied, average level of satisfaction, slightly below average level of satisfaction; Dissatisfied: Aggregate of dissatisfied and extremely dissatisfied. * = *p*-value significant at ≤ .05 level.

Table 4 reveals that there is significant association between health problems during night sleep and life satisfaction (X^2 = 9.91, *p* = .002).

night sleep and life satisfaction (X2 = 9.91, p = .002).

Table 5 demonstrates that there is significant association of age, marital status, educational status and current job status with Insomnia.

Table 6 shows that there is significant association of current physical health problems, presence of disease, taking medication at present, health problems during

night sleep with insomnia.

DISCUSSION

The current study showed that 42.3% of the respondents were aged 65-74 years. Most of the respondents (54.7%) were female. Majority (63.2%) of the respondents was married. More than half (59.3%) of the respondents were literate. The present study shows that 53.1% of the respondents had

Table 5 *Association between Socio-demographic Variables and Insomnia*

n =501

Variables	Insomnia				X^2Value	*p*-value
	Absent		Present			
	N	(%)	*N*	(%)		
Age Group in Years						
Below 75	199	54.2	168	45.8		
Above or Equal to 75	49	36.6	85	63.4	12.24	.000 *
Ethnicity						
Janajati	122	47.3	136	52.7		
Brahman/Chhetri	119	52.9	106	47.1	2.35	.309
Others	7	38.9	11	61.1		
Religion						
Hindu	218	48.4	232	51.6		
Buddhist	21	58.3	15	41.7		
Christian	9	60.0	6	40.0	1.99	.370
Marital Status						
Married	179	56.5	138	43.5		
Others [a]	69	37.5	115	62.5	16.76	.000 *
Educational Status						
Illiterate	123	41.4	174	58.6	19.08	.000 *
Literate	125	61.3	79	38.7		
Current Job Status						
Working	48	65.8	25	34.2		
Not Working	200	46.7	228	53.3	9.03	.003 *
Financially Dependency on Others						
Yes	195	47.7	214	52.3	2.96	.085
No	53	57.6	39	42.4		

[a]: Unmarried/Widow, Widower/ Divorced). * = *p*-value significant at ≤ .05 level.

Table 5 demonstrates that there is significant association of age, marital status, educational status and current job status with Insomnia.

disease. Among them, majority (53.8%) of the respondents had hypertension. The current study shows that more than half (57.5%) of the respondents had health problems during night sleep. Among them, majority (68.4%) of the respondents had nocturia during night sleep. About half (48.3%) of the respondents were satisfied with their life which is consistent

Table 6 *Associations of Current Physical Health Problems, Presence of Disease, Taking Medication at Present, Health Problems during Night Sleep, with Insomnia*

n =501

Variables	Insomnia				X^2 Value	*p* -value
	Absent		**Present**			
	N	*(%)*	*N*	*(%)*		
Current Physical Health Problems						
Yes	138	41.7	193	58.3	23.79	.000 *
No	110	64.7	60	35.3		
Presence of Disease						
Yes	107	40.2	159	59.8	19.52	.000*
No	141	60.0	94	40.0		
Taking Medication at Present						
Yes	94	38.8	148	61.2	21.27	.000*
No	154	59.5	105	40.5		
Health Problems During Night Sleep						
Yes	98	34.0	190	66.0	64.88	.000*
No	150	70.4	63	29.6		

Note. * = *p*-value significant at ≤ .05 level.

Table 6 shows that there is significant association of current physical health problems, presence of disease, taking medication at present, health problems during night sleep with insomnia.

with the study conducted in Iran where 40% of the elderly were satisfied with their life.[5]

The current study shows that 31.9% of the respondents were highly satisfied and 35.7 % of respondents were satisfied with their life. The result is consistent with the previous study in Russia, Turkey, Netherlands, and Malaysia revealed that 68% [6], 63.4 % [7], 80% [8] and 90.4% [9] of the respondents were satisfied with their life respectively.

The current study presents that sleep quality among respondents is excellent in 2.4%, good in 35.9%, fair in 52.3%, and poor in 9.4% as compared to other people. This study is supported by the study conducted in China where majority of respondents reported that prevalence of poor sleep quality was 41.5% [10]

The current study reveals that more than

half (50.5%) of the respondents had insomnia. The findings of the previous study conducted[11] in Nepal revealed that 40.6% of the respondents had insomnia. Furthermore, similarly, a previous study conducted in Brazil[12] showed that 55% of the respondents reported insomnia. Yet another cross-sectional epidemiological study conducted in Singaporeans showed that 13.7% of older adults reported at least one sleep problems, 69.4 % reported sleep interruption at night, 49.4% having difficulty having asleep, 22.3% reported early morning awakening and 11.4% had all three problems.[13]

The current study reveals that there is association of ethnicity and current job status, and health problems during night sleep with life satisfaction. This study showed similarity with a previous cross-sectional study conducted in Turkey that current employment is significantly associated with life satisfaction.[14]

A cross-sectional descriptive study was conducted in Macau yielded that medical illness was associated with low life satisfaction.[15] Another cross-sectional study conducted in Korea revealed that being female, higher economic statuses, monthly allowance, living with a spouse and self-rated overall health were associated with enhanced life satisfaction.[16] This two studies findings is contrast with the current study that there is no association of age, religion, marital status, educational status, financially dependency on others, current physical health problems, presence of disease and taking medication at present with life satisfaction.

The current study shows that there is association of age, marital status, educational status, current job status, current physical health problems, presence of disease, taking medication at present and health problems during night sleep with insomnia. This findings is somehow similar with previous study conducted in Nepal that there was significant association between health problems during night sleep and insomnia.[11]

The current study shows no association of ethnicity, religion, financially dependency on others with Insomnia which is comparable with the previous study conducted in Nepal that there was no significant association of financial dependency with insomnia.[11]

The field based descriptive study[17] was conducted in the Sivas City of Turkey among 71 elderly people to find life satisfaction level of elderly shows that 36.6% subjects were not satisfied with their life which is contrast with the present study which shows that 35.7% of the respondents were satisfied and 31.9% respondents were highly satisfied with their life.

A cross sectional study[18] conducted to find out the factors associated with insomnia among 843 elderly patients aged 60 years and above attending a geriatric centre in Nigeria shows the point prevalence of insomnia was 27.5% and insomnia was significantly associated with being female, unmarried, formally educated, living below the poverty line, not being physically active, health complaints of abdominal pain, generalized body pain and persistent headaches but this current study shows the prevalence of insomnia is 50.5% and age, marital status, educational status, current job status, current physical health problem, presence of disease, taking medication at present, health problems during night sleep.

Current study showed 50.5% prevalence of insomnia among 501 elderly. There is significant association between age, education, marital status, current job status, presence of physical health problem, presence of disease, and taking medication at present, health problems during night sleep. This findings is somehow similar with a cross sectional study conducted[19] to find out the prevalence of insomnia among elderly patients attending Nium Hospital, Bangalore, India among 600 elderly patients showed the prevalence of insomnia as 82.17% and there is strong relationship between insomnia and old age, dietary habits, exercise, occupation.

The study[5] conducted to examine life satisfaction among 250 elder people residing in Gorgan, Iran shows significant relationship between level of education, type of living and gender with life satisfaction among elderly which is similar with current study which shows significant association between variables like ethnicity, current job status and health problems during night sleep with level of satisfaction among elderly.

Based on the findings of the study, it is concluded that most of the elderly people were satisfied towards their life but insomnia were prevalent among elderly of Karyabinayak Municipality, Lalitpur. Concerned authority need to plan awareness program related to life satisfaction and insomnia and undertake suitable measures that will help elder people to stay healthy, maintain and preserve quality of life. It might be helpful for nurses and other health care personnel to get information regarding insomnia and factors associated with quality of life among elderly. Similar research can be conducted on large scale to assess the quality of life among elderly people so that findings can be generalized.

CONFLICTS OF INTEREST

None declared.

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