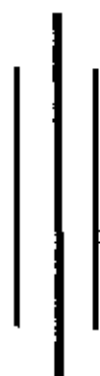


**Impact of Self Care Educational Intervention, on The  
Health Practice of Elderly In Selected Areas of  
Kathmandu District.**



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## Summary of the study

An impact study of the educational intervention regarding self health care practice among elderly people was carried in three selected areas of Kathmandu valley (Thapathali, Chabel and Pashupati area). Prior to the study, with the help of the municipality authority, health camps were launched in those areas to get the baseline data of the elderly people and to know their health problems as well as to let the people know about the project. This is the first phase of the study. Advertising of the health camps was done through pamphlet, banners and house-to-house motivation through the volunteers in the area. There were two doctors, two nurses, supervisors and volunteers and helpers employed in all the areas. The clients in the camp were provided with free health check up, free medication, counseling and referral services. There were 45 clients of the age between 60 to 95 came to Thapathali area, 56 clients of the age between 60-100 in Chabel area, and 47 clients between the age of 60 to 90 in Pashupati area. The maximum number of clients who came for services in all the areas was of the age group between 60 to 65. In all the areas the females outnumbered the males. The highest problem found in Thapathali was peptic ulcer (33.3%), in Chabel- problems related to bones and joints where as in Pshupati (31.1%), respiratory was the commonest (49%) among the listed top ten diseases. The remaining problems present were hypertension, diabetes, weakness/ giddiness, eye problem, heart problems, and the problems of insomnia.

Following the health camp, the second phase of the study started with the preparation of the research tools and their pre test among 10% elderly of samples in Maharajgunj area. Using purposive sampling technique, elderly people who were of the age above 60 years and who agreed to volunteer for the pre, post and interventional study samples were selected and pre tested by interviewing a semi structured questionnaire, after getting the formal consent from the municipality. Major health problems and the self-health care practice were identified following which health care package was developed and intervened after validating them by consulting the experts. Two weeks after the educational intervention the same interviewer using the same tool posttest the subjects. There were 38 elderly in Thapathali area, 40 and 41 in Pashupati and Chabel respectively selected for the sample study. The majority among them was of the age group 65-69years.

The majority of the respondents (84%) had problems related to joints and bones as in the first phase during pretest. The posttest result was not significant ( $p$  value=0.56) although, the use of backrest while sitting or standing and stretching legs while sitting during posttest had significantly changed. The rest of the top ten problems seen among the study samples were in vision/eye, teeth, gastric region, respiratory, impaired memory, heart problem, headache insomnia

and insomnia. The highest significant result in post test were seen in the problems related to gastric and insomnia ( p value= 0.0001). The second highest significant result (p value=0.0002) was in constipation problem probably due to dietary modification and formation of exercise habit. Of all the daily habits of the subjects, the most significant change were seen in dietary habit of taking vegetarian diet instead of non vegetarian and in restricting the habit of bending down unnecessarily (P value-<0.0001). Frequency of taking daily meal, smoking/drinking, and going for morning walk did not show significant results. The meal of all the samples consisted mostly of rice, pulses (dal) and vegetables. Taking milk and fruits were rarely seen.

Similarly in recreational habits, significant results were seen in the daily and weekly visits of temples and relatives and in doing social work as these were increased. The daily exercise habits during posttest were significantly increased after the implementation of the educational package (p value=<0.001). Regarding personal hygienic habits, increased number of the elderly started brushing their teeth at night and after each meal during posttest (p value= <0.001). Another change in personal hygienic habits seen was, significantly increased number of elderly in the sample bathing by cleaning the skin folds with soap and water after the educational intervention.

In conclusion majority of the samples lacked nutritious diet. There was slight change after the intervention but not satisfactorily. The samples lacked motivation towards change and they needed consistent reinforcement. Many of them had psychological problems like insomnia and insecurity. The children in many houses had less time to spend with the samples. The sample themselves if initiated self health care many health problems could be controlled but there were enthusiasm towards this. Some of them vocalized that their problems will end only after their death thus showed little interest in the teaching and they had less value for their life. Decreasing economical conditions due to the age were seem the main important factor for their feeling of powerlessness thus leading them to the lack of interest in life. The changes that were brought are the education should be made sustainable by bringing more of health awareness programs. Package programs regarding self health care should be on going. There should be more government programs that show respect to the elderly.

# Chapter 1

## A. Introduction

An interventional research project on elderly people in relation to their self health care practice was conducted in three selected areas of Katmandu district. The study consisted of two phases. The first phase was to conduct health camp. The second phase was the educational intervention study. The aim of conducting health camp were to assess the extent of health problems of the elderly in the areas, to locate them for the main study, and to help the elderly by providing medical and referral services.

The second phase aims at implementing educational intervention to improve the self-health care practice in major areas of health problems of elderly in the selected areas.

### 1. *Objectives of the study:*

To identify the extent of health care problems and provide necessary help to the elderly in the areas by:

- Advertising for the health camps
- Conducting health camps
- Performing health check up
- Providing prescribed medicine
- Providing referral services to an appropriate health institutions/ health facilities
- Select major health problems/needs of elderly

To implement health care educational program and measure the improvement, as well as maintenance in their self-health care practice by:

- Assessing the self-health care practice of elderly people in the maintenance of health through per-test.
- Developing self-health care module (package) according to the top ten health problems of the elderly people.
- Intervening the module (package) prepared, through health education program to the elderly people.
- Finding the impact of intervention through posttest.

## **B. Methodology**

### **1. Study design**

The study design used for first phase of the study was descriptive survey, which provided the base line information about the health problem/need of the elderly in the study areas. The elderly people were interviewed, examined by doctors and their old health records were reviewed to assess the health problems. The second phase of study was conducted to pre and posttest the self health care practice of elderly to find out the impact of the self health care educational intervention that were implemented to lessen or prevent their health problems.

### **2. Tools used**

The tools used for the first phase of the study was an open ended pretested questionnaire named as Health Card for Senior Community consisting of health check up format, which constitute patients' biography, present and past health history, their health problems, clinical findings and referrals made as shown in Annex 1. In order to make the clinical findings, physical examination was done by the doctors for whom the height, weight, blood pressure, temperature, pulse and respiration were checked using same instrument by the same professional health personal in all the areas who were hired and trained for the job.

For the second phase of the study, a semi-structured questionnaire was prepared consisting the respondents' socio-demographic characteristics, health problems, self health care habit regarding the activities of daily living and their method of tackling the health problems (Annex 3). The same tool was used for post testing to test the effect of the educational intervention. The educational intervention consists of a health care package module prepared after the pretest based on the need-identified health problems of the samples. The package had the self health care guide for the top ten health problems of the respondents so as to prevent the conditions, their home remedy, and when to refer the health personnel. This module was used among the same group of respondents by organizing health education session in all the three selected area.

The tools used for the study were pretested in the similar setting among 12 elderly in Marajgunj area, and necessary changes were made. Consulting and discussing among three subject experts of higher health authority from recognized health institution was done to validate the content of the health care module as well as the tool for the data collection. The consultation of a Nepali language teacher was also sought, as the module used was in Nepali language.

### **3. *Study Population and Sampling***

The study area chosen for the study were Thapathali, Chabel, and Pashupati Deupatan area. In the first phase of the study all the elderly citizens from these three areas were included for the baseline study in order to find out the actual population for the second phase. In the first phase, health camps were organized to gather information regarding the health problems and the location of the elderly. At Thapathali, the health camp was held on 20th Magh 2058, at Chabel 27th Magh 2058 and at Pashupati 4th Falgun 2058. Before conducting health camps, advertising were done by making telephone contacts, displaying banners and spreading pamphlets in different places, as well as personal visits were made from house to house by volunteers. In all the areas, elderly people attended health camps from various regions, even beyond the selected areas also. The address and the telephone number of the elderly who came from the selected areas were noted down and they were followed for the pre and post testing as well as for the educational interventions of the self health care module.

From the health camps attendances and from the personal contact, 40 elderly were selected purposively for the second phase of the study from every selected area as they had to be of the age above 60years and should be willing to participate in pre and post test as well as intervention part of the second phase.

### **4. *Data collection technique***

A team of trained health personnel was formed, who were trained regarding the data collection during pre and posttest and module implementation, after which they did the data collection and module implementation in all the three places. Same health personnel did the data collection during pre and posttest period, and module intervention in all the study areas in order to establish reliability of the instrument. Interviewing technique was adapted to pre and post tests the samples. Prior to the data collection the local authorities were approached for the consent. The respondents' and their relatives were told about the objectives of the study, and their verbal consent was taken before conducting the study. While visiting their houses for data collection, and for health education intervention, dates for the appointments were fixed according to their conveniences, and the permission was taken before entering the house. These samples after pretesting were visited door to door to collect information regarding their health problem and their self health care capabilities and health habits. A healthcare module consisting of the top ten health problems identified in the pretest was developed. The implementation of the health care module was done in-group as well as in an individual basis according to the need of the elderly. Two to four weeks after the implementation of the modules, post testing was conducted to find out the impact of the implementation of the module by making a house-to-house visit.

## C. Assessment findings

### 1. *Finding of first phase of the study*

The number of elderly attending the health camp in the first phase of the study is shown in Table 1. The total numbers of elderly attending in the three health camps were 160 in number. These elderly were explained about the purpose of the health camp and their verbal consent was obtained before the health examination. The number of elderly attending the camps varied only in small number as seen in the table. The maximum number of 60 elderly was in Chabel area. Thapathali and Pashupati area had equal number of elderly attending the health camp (50 each). In all the areas females attending the health camps outnumbered the males. This either shows that females were more conscious about their health or males did not attend the camp for some reasons. Opportunistic sampling technique was used for the selection of this sample, as all the elderly who could attend the health camps were included in the sample. In order to do this health camps, two doctors, two nurses and peons and supervisors were employed to work in the clinics. Provision of instrument for physical examination (weighing machine, Sphygmomanometer, thermometer, scale) and medications were made available for all the health camps. The camps were arranged in the three areas on three separate days from 9A.M. in the morning till late in the evening in order to provide ample time for the elderly to attend the camp. The doctors did the physical examination and the nurses measured the height, weight, temperature, pulse, and respiration of the elderly coming to the camps. Some of the elderly were referred for the consultation of various disease to different health institutions, some of them were eye, medical, orthopedic, gynecology and mental.

**Table 1: Number of elderly for the first phase of study**

Health camp areas	Number of elderly attending the health camp		
	Male	Female	Total
Thapathali	11 (22.0%)	39 (78.0%)	50 (31.2%)
Chabel	17 (28.3%)	43 (71.7%)	60 (37.5%)
Pashupati	20 (40.0%)	30 (60.0%)	50 (31.2%)

### 2. *Age of elderly attending the health camp*

The age distribution of the elderly attending the health camp in Table 2 shows that younger group of elderly were more prevalent in all the selected areas than the older ones. As the age of the elderly increased their number dropped down slowly. The table illustrates that the age group belonging to 60-65 did have more than 40% attendances in all the areas, with each successive age groups' attendances dropping down to half.



This may be due to the lack of independence to come to the camp, as they needed someone to follow them due to their weak and fragile health conditions. The city life of city dweller has very little spare time to accompany the elders to the health camps. Many elderly who came to the camp expressed this fact. One deaf and blind 100 years old elderly who came to Chabel area for health camp was left by his attendant, and had to be made special arrangement to return him to his destination by the investigator. There were many sad heart-rending stories narrated by the elderly who attended the camps. They had to make many adjustments and compromise to live in life.

**Table 2 Age distributions of elderly in the three health camps**

Age	Thapathali (N=45)	Chabel (N=56)	Pashupati (N=47)
60-65	19 (42.2%)	27 (48.2%)	21 (44.7%)
66-70	13 (28.9%)	14 (25.0%)	11 (23.4%)
71-75	7 (15.6%)	4 (7.2%)	8 (17%)
76-80	3 (6.7%)	8 (14.3%)	1 (2.1%)
81-85	2 (4.5%)	1 (1.9%)	4 (8.5%)
86-90	0	0	2 (4.3%)
91-95	1 (2.2%)	0	0
96-100	0	1 (1.9%)	0

### 3. *Health Problems seen in the three health camps*

The health camps identified the top ten health problems of the elderly attending the health camps as seen in table 3. The topmost problems were seen to be the acid peptic disease and orthopedic problems in Thapathali and Chabel health camps, which prevailed among 20 to 30 percent of elderly. But in Pashupati area health camp, the most prominent problem was seen to be respiratory disorders (in 49% of the elderly). This problem ranked third in other two areas. The next prominent problem in Thapathali, was hypertension (15.6%) where as in Chabel, weakness and eye problem followed next (14.3%) in the list. Weakness and giddiness were also found among 21.3% of the elderly in Pashupati health camp. The rest of the health problems were seen in less than 10% of elderly in all the three areas of the camps. The rest of the top ten health problems were diabetes mellitus, heart problem, hearing problem and insomnia. However, the health problems varied from one place to another. Among the three areas of the health camps, the elderly of the Thapathali were seen to have lesser health problems than the others, which may be because the elderly of this area were fortunate enough to have regular health check up conducted by the local NGO since long time.

**Table 3. Distribution of health problems in the health camps**

Health problems	Thapathali (N=45)	Chabel (N=56)	Pashupati (N=47)
Acid Peptic Disease	15 (33.3%)	13 (23.2%)	6 (12.8%)
Orthopedic problems	14 (31.1%)	21 (37.5%)	10 (21.3%)
Respiratory	8 (17.8%)	8 (14.3%)	23 (49%)
Hypertension	7 (15.6%)	1 (1.9%)	1 (2.1%)
Diabetes mellitus	4 (8.9%)	3 (5.8%)	3 (6.4%)
Weakness/giddiness	1 (2.2%)	8 (14.3%)	10 (21.3%)
Eye problem	0	8 (14.3%)	1 (2.1%)
Heart problem	1 (2.2%)	5 (8.9%)	2 (4.3%)
Hearing	0	3 (5.4%)	1 (2.1%)
Insomnia	0	4 (7.2%)	0

**Note:** Multiple responses.

#### **4. Findings from second phase of study.**

The second phase of the study compared the pre and posttests finding of the results of educational self care intervention on the elderly. During the pretest, mainly three sets of information were obtained regarding the health of the respondents for which, three groups of semi structured interview questionnaire were used. One part of questionnaire used, helped in getting base line data regarding their activities of daily living habits consisting of the diet, exercises and rest, personal hygiene, praying, entertainment, smoking and drinking watching TV, Social and religious activities and means of combating emotion, stresses. Another part helped in finding out their health problems, where as the third part helped in finding out, what they did when the problems occurred. Based on this finding of their self health care habits and their health problems, an educational self-health care module was developed and intervened. The module dealt with the respondent's top ten health problems found during the pretest. It stated how to prevent from occurring these problems, what to do at home when the problems occurred as home remedy, and when to consult the health personnel. The third part of the second phase of study gave the level of difference made in the respondents' behaviors after the intervention in dealing with the top ten health problems, for which the same pretest questionnaire were used to measure the change during posttest. The inmates of Bankali Bridhhashram of Pashupati were also included as respondents at Pashupati area.

### **5. *Social-demographic findings:***

The majority of the respondents in this phase also, like in the first phase constituted females (61.3%). Only 38.7 % males were present in the second phase. Majority (56%) of them come from joint family, and mostly live with their sons and daughters. The rest were either coming from nuclear family or single family (21.8% each). The single family constitutes those who were staying in the Pashupati temple area as monks. Table 4 shows that majority of respondents (95.8%) were Hindus. Only 4.2% constitute Buddhists. Regarding ethnicity, majority (35.3%) were Newars, followed by Brahmins (29.4%) and Chhetris (25.2%) respectively. The rest of the casts belonged to other category consisting of Gurung, Magars etc. Regarding the education status 59.7% of them were illiterate and only 40.3% were literate. Among the literates also, 58.3% had just primary education, followed by secondary education (25%) and higher secondary education (16.7%). Regarding family employment, majority (67.2%) of the family members were unemployed (see table 4). Less than 40% were employed/self employed. This indicates that the majority was economically not well off.

**Table 4. Socio Economic Status of Respondents**

S. No.	Educational status	Frequency (n=119)	Percentage
1	Illiterate	71	59.7
2	Literate	48	40.3
	2.a. Primary	28	58.3
	2.b. Secondary	12	25.0
	2.c. Higher Secondary and above	8	16.7
	Total	48	100
<b>B. Ethnicity</b>			
1	Brahmin	35	29.4
2	Chhetri	30	25.2
3	Newars	42	35.3
4	Others	12	10.1
<b>C. Religion</b>			
1	Hindu	114	95.8
2	Buddhist	5	4.2
<b>D. Marital status</b>			
1	Married	54	45.
2	Unmarried	8	6.7
3	Widow/Widower	57	47.9
<b>E. Family Structure</b>			
1	Single	26	21.8
2	Nuclear	26	21.8
3	Joint	67	56.3
<b>F. Family Employment</b>			
1	Employed	26	21.8
2	Unemployed	80	67.2
3	Self employed	13	10.9

#### 6. *Daily habits of respondents*

Table 5 given below indicates the respondents' change in daily habits after the educational intervention. The highest significant change is seen in the habit of taking vegetarian diet and their bending habits after the intervention ( $p$  value=  $<0.0001$ ). There were only 22 samples taking vegetarian diet during pretest, which changed to 77 during posttest. Similarly in the elderly, the not bending habits seen during posttest were significantly along with sometimes and often bending. Other habits like taking drinking/smoking /walking habits did not show significant change during posttest. Regarding, the reason of drinking most of the elderly mentioned festival drinking during pre ( $>81\%$ )and posttest (62%). Regarding, the frequency of taking food, elderly taking one time meal taking

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had been reduced and the frequency of taking three time meal were increased during slightly during post test.

**Table 5. Eating/drinking/ smoking /walking habits**

S. No.	Habits	Pretest N=119		Post test N=119		p value
		No.	%	No.	%	
<b>A. Food</b>						
1	Vegetarian	22	18.5	77	64.7	<b>&lt;0.0001</b>
2	Non vegetarian	97	81.5	42	35.3	
<b>Frequency of meals taken per day</b>						
1	One time	16	13.4	10	8.4	0.064
2	Two times	79	66.4	70	58.8	
3	Three times	24	20.2	39	32.8	
<b>C. Habit of alcohol drinking</b>		N=27		N=21		
1	Daily	4	14.8	2	9.5	0.68
2	Occasionally	23	85.2	19	90.5	
<b>D Reason for drinking</b>						
1	Festival/feasts	22	81.5	13	62	0.266
2	Relaxed	1	3.7	4	19	
3	Desire	1	3.7	2	9.5	
4	Habit	3	11.1	2	9.5	
<b>E. Smoking</b>		N=40		N=26		
1	Daily	31	77.5	20	78	0.956
2	Occasionally	9	22.5	6	22	
<b>F. Morning Walk</b>		N=119		N=119		
1	Yes	62	52.1	75	63	0.088
2	No	57	47.9	44	37	
<b>G. Bending down</b>						
1	No bending	21	17.6	10	8.4	<b>&lt;0.0001</b>
2	Very often	13	10.9	45	37.8	
3	Sometimes	21	17.6	40	33.6	
4	Only when needed	53	44.5	20	16.8	
5	Not noticed/Don't know	11	9.2	4	3.4	

#### 6. Age of respondents in second phase

Following Table 6 illustrates the finding of age group of respondents attended this phase of study. In this phase, the majority of the age of the respondents was between 65-69. The second highest were of the age group between 60-64 (16%), and the third being the age group between 70- 79

(15.1%). The rest of the age category (above 80 years) included was present in less than 10%. This indicate that the age above 80 were smaller in number.

**Table 6. Age distribution of elderly in the second phase**

Age	No. of elderly	Percent
60-64	19	16.0
65-69	47	39.5
70-74	18	15.1
75-79	18	15.1
80-84	10	8.4
85-89	6	5.0
90-94	0	0
95-99	1	0.8
Total	119	100

MEAN =70.5 yrs, SD = 7.5 years, minimum = 60 yrs, maximum = 99 yrs

**7. The top ten health problems of elderly in second phase of study.**

Table 7 shows the distribution of the most frequently seen health problems in the second phase of the study. In this phase also the bone and joint problem topped the list and was seen among 84 percent of the responses. The second top problem was found to be vision/eye problem among 68.1 percent respondents of the study. The problems of teeth, gastric and respiratory were present between 52 to 59 percent of the respondents. Impaired memory, heart problem and headache constituted the problems of 30 to 38 percent of the samples. The rest of the problems were insomnia and constipation, which were in 29.4 and 25 percent respectively. Therefore most of the problems found in health camps during the first phase of the study were also present among the respondents in the second phase. However, after the educational intervention, the result showed highly significant improvement especially in the highlighted problem areas in the table such as problems related to gastric and insomnia ( $p$  value=0.00001). Other significant changes were in the problems of constipation ( $p=0.0002$ ), teeth ( $p=0.007$ ), respiration ( $p=0.004$ ) and headache ( $p=0.01$ ) respectively. In the rest of the problems the change were not significant.

# जेष्ठ नागरिकको लागि स्वयं स्वास्थ्य सेवा मोड्युल





**Table 7. Distribution of health problems in second phase**

Health Problems	Pre test (N=119)		Post test (N=119)		Total (percent)	p value
	Yes	No	Yes	No		
Bone and joints	100(84.0%)	19(16.0%)	88(73.9%)	31(26.1%)	119(100%)	0.056
Vision/eye	81(68.1%)	38(31.9%)	70(58.8%)	49(41.2%)	119(100%)	0.139
Teeth	71(59.7%)	48(40.3%)	50(42.0%)	69(58.0%)	119(100%)	0.007
Gastric	63(52.9%)	56(47.1%)	30(25.2%)	89(74.8%)	119(100%)	0.00001
Respiratory	62(52.1%)	57(47.9%)	40(33.6%)	79(66.4%)	119(100%)	0.004
Impaired memory	45(38.0%)	73(61.3%)	40(33.6%)	79(66.4%)	119(100%)	0.468
Heart problem	39(32.8%)	80(67.2%)	29(24.4%)	90(75.6%)	119(100%)	0.151
Headache	37(31.1%)	82(68.9%)	20(16.8%)	99(83.2%)	119(100%)	0.01
Insomnia	35(29.4%)	84(70.6%)	10(8.4%)	109(91.6%)	119(100%)	0.00001
Constipation	30(25.2%)	89(74.8%)	9(7.6%)	110(92.4%)	119(100%)	0.0002

### 8. Consultation when health problems arise

The consultations for the health habits of the respondents before and after the health educational intervention were as shown in table 8. They did not respond to the health problem early. Most of them (84) waited till the problem seemed serious. Only 22 responded immediately when the problem arose. Very few (3) waited till others showed the concern. The pattern of consultation was changed after the educational intervention regarding the importance of early diagnosis and treatment health problem as can be seen on the table, specially the respondents immediately consulting the health problems had increased significantly ( $p < 0.0001$ ). The respondents waiting till the problem become serious had drastically dropped to 12 but there were increased number of respondents who wait for some one to show concern before they seek help. This could be due to their diminished mobility and independence in many ways, which compelled to wait for some one's concern.

**Table 8. Consultation for health problems**

Consultation for health problems	Pre test	Post test	p value
Immediately when problem arises	22 (18.5%)	90 (75.6%)	<0.0001
When Problem seemed serious	94 (79.0%)	22 (18.5%)	<0.0001
When concern is shown by some one	3 (2.5%)	7 (5.9%)	0.332
Total	119(100%)	119(100%)	<0.0001

## 9. *Choice of the first person/place to consult for the health problems*

The responses to the first person or place the respondents approached for the problems indicate, the person or place they trust for the solution of their health problems. Table 9 shows that during the pretest, the male respondents trusting the family was in the highest (25). The second on the list is the health institution (11) followed by traditional health workers (3). Seven of the male respondents consulted others, which constitute friends and neighbors. There were 3 respondents who did not consult any body but kept the problem within them. The pretest result among female were also highest among who consulted family members but the number was slightly higher (38) than in male. Female respondents going to health institute for consultation of health problems were slightly fewer (9) than the males. However, the females consulting traditional practionors were higher (13) than the males. The females consulting other were in the same number as that of males. The females keeping the problems to themselves without consulting any body were fewer in number (1) than male. After educational intervention, the posttest result showed increasing number of respondents consulting family member in male (25) as well as females (50). The males consulting health institution has slightly reduced (10) than in pre test. No male respondents consulted traditional practionors or others or stayed by keeping their problems to themselves without telling any one. But the females consulting health institutions had greatly increased (20) than in pretest and there were still some females (2) who consult traditional practitioners. One female respondent did not want to share their health problems to any one. This showed there were rooms for improvement in the implementation of health care educational intervention. The total male respondents (46) answering this question were considerably less than that of females (73). They were reluctant to answer this question during pre as well as posttest period. Many be, they felt it was an intrusive question for them. The reluctance was seen more in front of the family members. They were not forced to answer the questions, which they did not want to answer. This situation was less evident among females although fewer of them responded this question. They seem more open than the males. It could be due to the fact that the data enumerators were females and the males did not want to reveal the problems. The place and the people consulted after intervention did not have significant change.



**Table 9. Pre and posttest on person/place to go first for consultation for problems**

Person/place of consultation	Male		Female		p value
	Pretest (N=46)	Posttest (N=45)	Pretest (N=73)	Posttest (N=73)	
Family members	25(54.3%)	35(77.8%)	38(52.1%)	50(68.5%)	0.855
Health Institute	11(23.9%)	10(22.2%)	9(12.3%)	20(27.4%)	0.128
Traditional Practitioner	4(8.7%)	0	13(17.8%)	2(2.7%)	1.0
Others	7(15.2%)	0	7(15.2%)	11(15.1%)	<b>0.008*</b>
None	3(6.5%)	0	8(11.6)	1(1.4%)	1.0

## 10. Activities of the daily living of the respondents

### A. Eating/ drinking/smoking habits

In table 10, the eating habits most of the respondents (81.5%) used to eat non-vegetarian food before educational interventions but after the educating about the importance of vegetarian diet in the prevention of heart disease the result dropped down to 60%( $p < 0.0001$ ). Other significant change in the table during post was seen in bending habit. The respondents not bending, bending sometimes and bending only when needed had significant positive response where as bending very often was a negatively significant response. The rest of the category in this table though have change did not show significance. The majority of the respondents (66.4%) used two meals a day consisting of morning and evening heavy meals with rice, pulses (dals) and vegetables which is traditional Nepali eating pattern, only 20.2% took snakes in between the meals. The third group who were staying in the temple took only one meal a day since they could get only that. Regarding the drinking of alcohol, 85.2% of the respondents used to drink alcohol occasionally only. The reasons given for them to take alcohol were mostly their culture to take drinks during festivals (81.5%). Other reasons were the desire to relax (3.7%) and habit (11.1%). This result correlates with the major ethnicity prevalent in the area, as Newars mostly use drinks during festival. Except for the respondents, who were staying in the temple, all had their control over having the type of food they like to take. Only 14 respondents out of 119 smoked at the time of study. However, some were smokers in the past but they had quit smoking due to the disease conditions. Regarding taking drugs, only one person was found taking drugs for insomnia.

**Table 10. Daily habits during second phase**

Habits	Pretest (N=119)		Post test (N=119)		p value
	No.	%	No.	%	
<b>A. Food</b>					
Vegetarian	22	18.5	77	64.7	<b>&lt;0.0001</b>
Non vegetarian	97	81.5	42	35.3	
<b>B. Frequency of meals taken per day</b>					
One time	16	13.4	10	8.4	<b>0.064</b>
Two times	79	66.4	70	58.8	
Three times	24	20.2	39	32.8	
<b>C. Habit of alcohol drinking</b>					
	N=27		N=21		
Daily	4	14.8	2	9.5	<b>0.58</b>
Occasionally	23	85.2	19	90.5	
<b>D Reason for drinking</b>					
Festiva/feasts	22	81.5	13	62	<b>0.266</b>
Relaxed	1	3.7	4	19	
Desire	1	3.7	2	9.5	
Habit	3	11.1	2	9.5	
<b>E. Smoking</b>					
	N=40		N=26		
Daily	31	77.5	20	78	<b>0.956</b>
Occasionally	9	22.5	6	22	
<b>F. Morning Walk</b>					
	N=119		N=119		
Yes	62	52.1	75	63	<b>0.088</b>
No	57	47.9	44	37	
<b>G. Bending down</b>					
No	21	17.6	10	8.4	<b>&lt;0.000 1</b>
Very often	13	10.9	45	37.8	
Sometimes	21	17.6	40	33.6	
Only when needed	53	44.5	20	16.8	
Not noticed/Don't know	11	9.2	4	3.4	

The content of the every day meal of the respondents was shown as in the table 11. The majority of their meal contents, on an average in all the three areas of study, showed the typical Nepali meal pattern, consisting of- rice, beans (Dal) vegetables for main meal, and biscuits/bread, and snacks and fruits were consumed in a small amount during the day time. Their diet seemed to be consisting of species with lot of chilies. Consuming biscuits and bread seemed more among respondents in Pashupati area. The respondents were encouraged to eat plenty of roughage in their diet. Educational intervention consisted of warning them not to take lot of spices as it cause-burning stomach. Their dietary habits did not affect much during post testing

**Table 11. Contents of Meal by Place of Study\***

Contents of meal	Thapathali	Pashupati	Chabahil	Total
Rice	38	40	38	116
Vegetable	32	37	40	109
Milk	13	11	9	33
Dal	28	40	40	108
Roti	1	4	20	25
Snacks	3	2	2	7
Biscuits/bread	0	19	8	27
Fruits	0	0	2	2

\*Note: multiple answers

### 11. *Brushing the teeth during pre and post testing.*

Regarding the frequency of brushing the teeth, there were 101 respondents answering this question. Ten respondents did not have teeth and others did not answer the question. Table 12 showed the number of times the respondents brushing their teeth on an average during the day in the three places of study. Most of the respondents used to brush their teeth only once in the morning (100). Respondents brushing their teeth at night and after each meal were only 7 and 3 respectively. When interviewed, most had unsatisfactory technique of brushing. So, they were demonstrated how to brush the teeth by using model and pictures, and encouraged to brush morning and night, and ring mouth every time after having meal, in all the three places of study areas. The posttest result had shown significant change ( $p < 0.0001$ ) as shown in the table especially in brushing at night and ringing mouth after each meal in all the areas.

**\*Table 12 Frequency of brushing teeth by place of study during pre and post testing**

Time of teeth brushing done	Thapathali		Pashupati		Chabahil		Total		p value (in total)
	Pre	post	Pre	Post	Pre	post	Pre	Post	
Morning	28	28	35	35	37	36	100	99	0.86
Night	2	10	2	25	3	20	7	55	<0.0001
After each meal	0	20	1	7	2	8	3	35	<0.0001



# Annex 1

## Health Card for Senior Community

1. Code No.:
2. Ward No.:
3. S. No:
5. Name:
4. Age:
6. Sex:
7. Address:
9. Phone No:
8. Weight:
10. Height
11. Vital Signs: a. Temperature:
  - b. Pulse:
  - c. Respiration:
  - d. Blood Pressure:
12. Health Problems:
13. Findings:
14. Treatment given:
15. Examined by:
16. Referral

## Annex 2

### List of Manpower Involved

#### Health Personnel involved In the health camp at:

##### A. Thapathall, Janakalyan Sadan

Date 20/10/058

<i>S. N.</i>	<i>Name</i>	<i>Designation</i>
1.	Dr. Shashi Sharma	Associate Professor
2.	Dr. Jyoti Sharma	Associate Professor
3.	Mrs. Nandika Devi Shakya	Associate Professor
4.	Mrs. Sabitri Basnet	Associate Professor
5.	Mrs Sarita Sharma	Lecturer
6.	Mrs. Sulochana Sagar	Lecturer
7.	Mrs. Kunti Basnet	Lecturer

##### B. Chabel, Municipality Office

1.	Dr. Shashi Sharma	Associate Professor
2.	Dr. Jyoti Sharma	Associate Professor
3.	Mrs. Nandika Devi Shakya	Associate Professor
4.	Mrs. Sabitri Basnet	Associate Professor
5.	Mrs. Sarita Sharma	Lecturer
6.	Mrs. Sulochana Sagar	Lecturer
7.	Mrs. Chandra Kala Sharma	Assist. Lecturer
8.	Mr. Parmeshwer Chhetri	Volunteer
9.	Mr. Mahesh Shakya	Volunteer
10.	Mr. Narayan Thakuri	Helper
11.	Mrs. Ganga Dhakal	Peon

##### C. Pasupati Municipality Office

1.	Dr. Shashi Sharma	Associate Professor
2.	Dr. Jyoti Sharma	Associate Professor
3.	Mrs. Nandika Shakya	Associate Professor
4.	Mrs. Sabitri Basnet	Associate Professor
5.	Mrs. Sarita Sharma	Lecturer
6.	Mrs. Sulochana Sagar	Lecturer
7.	Mrs. Chandrakala Sharma	Assist. Lecturer
8.	Miss. Radha Shresth	Volunteer
9.	Mr. Narayan Thakuri	Helper
10.	Mr. Shrivash Dhakal	Peon



**Core Group**

Mrs. Nandika Devi Shakya

Mrs. Sabitri Basnet

Mrs. Sarita Sharma

Principal Investigator

Co investigator

Co investigator

**Statistic Consultation:**

Mr. Prabin Shresth

# Questionnaire To Interview the Elderly to Study the Impact of Health Care Intervention and the Self-care Practice.

## Part I

### 1. Socio Demographic Characteristics

Serial No.

Address

Sex

- a. Male
- b. Female

Age:

Marital Status

- a. Married
- b. Unmarried
- c. Widow
- d. Divorced
- e. Separated

Family:

- a. Nuclear
- b. Joint

If joint family with whom you are staying?

Employment Status

- a. Employee
- b. Not employed

If employed

- a. Agriculture
- b. Business
- c. Industry
- a. Service
- e. Household
- c. Others

Educational Attainment

- a. Primary Level
- b. Secondary Level
- c. Higher Secondary level or above

**Religion**

- a. Hindu
- b. Buddhist
- c. Others

**Ethnicity / Caste**

- a. Brahman
- b. Chhetri
- c. Newar   
(ethnic caste)
- d. Others

**Are you a vegetarian or non-vegetarian?**

- a. Throughout life
- b. Since

**Do you have the habit of taking following:  
taking?****reason for**

- |   |  |
|---|--|
| <p>a. <b>Alcohol</b> <input type="checkbox"/></p> <p>i. Daily <input type="checkbox"/></p> <p>.....</p> | <p>ii. Occasionally <input type="checkbox"/></p> |
| <p>b. <b>Smoking</b> <input type="checkbox"/></p> <p>i. Daily <input type="checkbox"/></p> <p>.....</p> | <p>ii. Occasionally <input type="checkbox"/></p> |
| <p>c. <b>Drugs</b> <input type="checkbox"/></p> <p>i. Daily <input type="checkbox"/></p> <p>.....</p>   | <p>ii. Occasionally <input type="checkbox"/></p> |

## Do you consult someone when you have problem?

	Pre Test	Posttest
<b>If yes,</b>		
<b>i. Whom do you consult?</b>		
a. Family Members	<input type="text"/>	<input type="text"/>
b. Health Institutions	<input type="text"/>	<input type="text"/>
c. Traditional Practitioner	<input type="text"/>	<input type="text"/>
d. Others	<input type="text"/>	<input type="text"/>
<b>ii. When do you consult?</b>		
a. Whenever the problem arises	<input type="text"/>	<input type="text"/>
b. Whenever the problem seems	<input type="text"/>	<input type="text"/>
c. When the concern is shown by someone	<input type="text"/>	<input type="text"/>
d. Do you follow their advice?	<input type="text"/>	<input type="text"/>

### Part II

#### 2. Nutrition Food

##### i. How many meals do you take in a day?

a. 1 time	<input type="text"/>	<input type="text"/>
b. 2 times	<input type="text"/>	<input type="text"/>
c. 3 times	<input type="text"/>	<input type="text"/>

##### ii. Which of the following food do you take and how often?

a. Rice	<input type="text"/>	<input type="text"/>
b. Flour	<input type="text"/>	<input type="text"/>
c. Bread	<input type="text"/>	<input type="text"/>
d. Pulses	<input type="text"/>	<input type="text"/>
e. Green Vegetable	<input type="text"/>	<input type="text"/>
f. Milk/Curd	<input type="text"/>	<input type="text"/>
g. Meat/Fish	<input type="text"/>	<input type="text"/>
h. Egg.	<input type="text"/>	<input type="text"/>
i. Others	<input type="text"/>	<input type="text"/>

##### iii. Which food you do not like?

a. Hard	<input type="text"/>	<input type="text"/>
b. Soft	<input type="text"/>	<input type="text"/>
c. Over cooked	<input type="text"/>	<input type="text"/>
d. Under cooked	<input type="text"/>	<input type="text"/>
e. Moderately Cooked	<input type="text"/>	<input type="text"/>

- f. Cold Food
- g. Hot Food
- h. Spicy food

**iv. Is the food that you usually eat is:**

- a. Hard
- b. Soft
- c. Over Cooked
- c. Over cooked
- d. Under cooked
- e. Moderately Cooked
- f. Cold Food
- g. Hot Food
- h. Spicy food

**3. Elimination**

- i. Do you pass stool Everyday Normally?
- ii. Do you pass urine Everyday Normally?

**4. Personal Hygiene**

- i. Do you take bath everyday?
- ii. How often do you take bath with soap and water?
  - a. Daily?
  - b. Weekly?
  - c. Fortnightly?
  - d. Monthly
- iii. Do you care skin folding and private parts while taking bath?
- iv. Do you wash hand every time after using the toilet?
- a. After passing the urine?
- b. If yes with what?
- i. Plain water?
- ii. Soap?
- iii. Others?

**After passing the stools?**

b. If yes with what?

i. Plain water?

ii. Soap?

iii. Others?

v. How many times in a day do you brush teeth?

a. 1 time

b. 2 times

c. 3 times

vi. Do you brush the teeth everyday?

If yes when?

a. In the morning?

b. At night?

c. after having meal ?

**5. Sleep**

i. In average how many hours do you sleep during?

a. Night?

Hrs.

b. Day?

Hrs.

ii. Do you go to bet immediately after having meal ?

Yes

No

**6. Rest**

i. Do you take rest in between the work / any activity?

a. Yes

b. No

c. Sometimes

d. Occasionally

**7.A. Exercise**

i. Do you do some physical exercise every day?

Yes

No

If yes,

- a. How long? .....
- b. What type? .....

Do you go for morning walk?

Yes  No

If yes,

- d. For how long? .....
- .....

**B. Posture**

i. What is your normal position?

**While sitting?**

- a. With Backrest
- b. Without backrest

**While standing?**

- c. With back rest
- d. Without backrest

ii. Do you stand in erect position?

Yes  No

iii. Usually in what position do you sit?

- a. Folding legs/Cross legs
- b. Stretching the legs
- c. Resting the back on wall / chair/other object

iv. In your daily activities, do you bend down?

- a. Very often
- b. Sometimes
- c. Only when needed
- d. Do not know/not noticed

## Safety

### i. What safety measures you take to be prevented from possible accident or injury?

- |    |  |                          |                          |
|----|--|--------------------------|--------------------------|
| a. | Make less movement                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Walk slowly  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Always be accompanied by<br>Someone in risky environment | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Use stick or other aid                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Use ground floor room                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | No special care taken                                    | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | Others   | <input type="checkbox"/> | <input type="checkbox"/> |

### Do you partipate in any social group activities?

Yes  No

### If yes, what type of social activities?

- |    |           |                          |                          |
|----|-----------|--------------------------|--------------------------|
| a. | Social    | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Cultural  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Religious | <input type="checkbox"/> | <input type="checkbox"/> |

### How often?

- |    |              |                          |                          |
|----|--------------|--------------------------|--------------------------|
| a. | Daily        | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Weekly       | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Fortnightly  | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Monthly      | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Occasionally | <input type="checkbox"/> | <input type="checkbox"/> |

### If no; why?

## 9. Mental Health

### i. Do you involve yourself in the religious activity?

#### If yes, When?

- |    |                         |                          |                          |
|----|-------------------------|--------------------------|--------------------------|
| a. | Every morning           | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Every Evening           | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Occasionally other time | <input type="checkbox"/> | <input type="checkbox"/> |



**10. Recreational activities.**

**i. What do you do in your free time?**

- |    |                              |                          |                          |
|----|------------------------------|--------------------------|--------------------------|
| a. | Undertake religious activity | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Read books                   | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Watch TV                     | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Play Cards                   | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Do gardening                 | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Others                       | <input type="checkbox"/> | <input type="checkbox"/> |

**11. How do you spend your day? (Daily Activities)**

- |    |   |                          |                          |
|----|---|--------------------------|--------------------------|
| a. | Visiting religious place/participate in ritual activity at home | <input type="checkbox"/> | <input type="checkbox"/> |
| b. | Doing household work  | <input type="checkbox"/> | <input type="checkbox"/> |
| c. | Gardening   | <input type="checkbox"/> | <input type="checkbox"/> |
| d. | Time spent with grand children                                  | <input type="checkbox"/> | <input type="checkbox"/> |
| e. | Reading books/newspaper   | <input type="checkbox"/> | <input type="checkbox"/> |
| f. | Visiting friends/Relatives                                      | <input type="checkbox"/> | <input type="checkbox"/> |
| g. | Just sitting and thinking                                       | <input type="checkbox"/> | <input type="checkbox"/> |
| h. | Doing some manual work  | <input type="checkbox"/> | <input type="checkbox"/> |
| i. | Working for income generation                                   | <input type="checkbox"/> | <input type="checkbox"/> |
| j. | Just lying on the bed   | <input type="checkbox"/> | <input type="checkbox"/> |
| k. | Helping Others  | <input type="checkbox"/> | <input type="checkbox"/> |
| l. | Others  | <input type="checkbox"/> | <input type="checkbox"/> |

## Questionnaire for Health Problems.

### Part III

What do you do if you have any of the following problems?	Ignore	Resist	Consulting the family members use			Without consulting the family members			Undertake religious activities	Others
			modern practitioners	traditional healers	home made medicine	modern practitioners	traditional healers	home made medicine		
Headache										
Fever										
Fainting Attacks										
Vision problem										
Eye injury/ other problems										
Ear - itches, discharge										
Coughs & Cold										
General weakness										
Sore throat										
Dental problem										
Dizziness										
Stiff neck										
Pain stiffness and numbness of										
-Shoulder joints										
-Neck joints										
-Back										
-Hip joints										
-Knee joints										
-Ankle										
-Wrist fingers										
-Dry and itching skin										
-Sore skin										
Are you allergic to anything										
-Chest pain and heaviness in chest										
-Palpitation										
-Breathing difficulties										
Excessive sweating										
Nutrition										
-Excessive loss of appetite										
-Excessive gain of appetite										
-Excessive loss of weight										
-Excessive gain of weight										
Food allergy										
-Swallowing difficulties										
Elimination										
-Urinary problems										
-Stool problems										
-Nausea/ Vomiting										
-Abdominal pain										
-Acidity										
-Constipation										
-Diarrhea / dysentery										
-Frequency of urine										
-Burning urine										
-Genital discharge										
-Piles										
-Blood in urine and stool, Black stool										

# MENTAL HEALTH

What do you do if you have any of the following problems?	Ignorant	Rely	Consulting the family members use			Without consulting the family members use			Underline religious activities	Other
			modern medicine	traditional healers	home made medicine	modern practitioners	traditional healers	home made medicine		
Anxiety										
Depression										
Phobia										
Powerlessness										
Body image disturbance										
Adjustment problem										
Spiritual distress										
Self care deficit										
Eating problems										
Bathing/maintaining personal hygiene										
Dressing and grooming										
Toileting										
Impaired memory, confusion										
Sleep & rest										
Insomnia										
Sleep pattern disturbance										
Drug and alcoholic addiction										
Social isolation										

# NEPAL

