CHAPTER IV

RESULTS

This chapter presents the analysis and interpretation of the findings based on the data collected from 120 senior citizens living in rural community, Nepal, in order to determine the effectiveness of the Comprehensive Nursing Interventions (CNIs). The data was analyzed and interpreted on the basis of the study's objectives and hypotheses.

The results of the study are organized under the following headings;

- Results of the qualitative data
- Results of the quantitative data

4.1 Results of the qualitative data

A focused group discussion (FGD) among senior citizens living in similar rural community was conducted in the first phase (development of CNIs) of study as per the study objective. The factors related to well-being and QOL of the senior people were explored. The data from the FGD was analyzed qualitatively and manually by coding, categorizing and theme generation. The researcher generated the transcripts by an audio recording which was recorded with permission during the FGD. An in-depth understanding of each content area was built by reading the collected information multiple times. Then different codes were identified and grouped into categories under major themes. The FGD brought senior citizens' problems and its' related factors together with their awareness for promoting well-being and QOL.

Table 3: The generated theme from FGD among senior citizens

Themes	Sub-themes	Supportive Verbatim
Problems interfering with well-being of senior citizens.	1. Having health problems.	-Our health problems are asthma, hypertension, gastritis, sometimes fever. Family members feel burden with our problems.
	2. Dissatisfaction with agingand social relationship.	-The elderly life is the worst life among all age group.
	3. Dissatisfaction with financial status.	-If we have adequate money, we feel happy and it is easy for maintaining daily expenditure. We have limited money as expenditure is more.
	4. Psychological satisfaction.	-Nobody knows future, so we should not worry from the present for the future problem.
	5. Spiritual awakening.	- Previously we did not think that there is an existence of God, now we have realized it. After 50 years of age, religious activities have increased.
Personal habits and physiological factors affecting well-being and quality of	1. Realizing importance of vegetarian diet. 2. Realizing bad effects of smoking and alcohol.	-Vegetable diet like green vegetables help to feel fresh, energetic and digested easily. But after taking non-vegetable diet, feel heavy. -We know that smoking cause disease but I am using nicotine.

life.	3. Disturbed sleep pattern.	-Night urine disturbs sleep, our sleep is not like during younger age.
Acceptance of elderly appearance and abilities.	1. Positive attitude and acceptance of aging process.	- Old age is a natural process, our grandfather and father also became old and then died. So we need to accept this change. - We have become hopeless for outside work.
Solution to the elderly problems/Management of the elderly problems.	1. Willing to perform age appropriate activities. 2. Helping role of care giver. 3. Dissatisfaction with local health services.	- We should bring out sweating by working. An active andbusy elderly will have less problems. - The care taker happily provided food even 'khichadi andhot water', as per older people's health is also valuable. - Health post is present here but no medicine is available.So, people go to private clinic than health post.
Knowledge on provision of various support provided by the Government.	1. Inadequate awareness of the Government services provided for senior citizens.	- I don't know the provision of geriatric ward in the hospital.
Expectation from community health nurse.	1. Desired health services by CHN.	- Community nurse interact at home only even reduce our health problems. Checking and getting information will help us by getting fast treatment.

Table 3 highlighted six themes and various sub-themes related to well-being and QOL of older people, generated from focus group discussion. The themes, sub-themes and supportive verbatim are as follow:

Theme one: The problems interfering on well-being of senior citizens

Most of the participants expressed health problems like asthma, high blood pressure, gastritis, hernia, piles, high cholesterol, thyroid disorder, and any surgery and kidney disease. Most of the elderly people accepted that the elderly life is the worst life among all age group and expressed it happily. All participants liked this FGD as meeting and sharing opportunity. A social problem like lack of place for sharing (chautara/meeting place) also has effect on their well-being. All the participants expressed that social problems increased as the old age increased. Majority of them realized that the family and social relationship is distant than used to be in earlier. Comparatively, most of them like close social and family relations as earlier times.

On the discussion of financial problems and elderly well-being, majority of the participants expressed that if they had sufficient money for personal expenses and spouse need, they would be happy and satisfied. They were receiving social security fund from the government. Some of the participants handed over all social security fund to their family members.

When asking about psychological issues during elderly age, most of them shared that they were comfortable and confident, but not stressful about their future. They expressed that they liked service to people and society and were interested in welfare activities.

Sub-theme one: Having health problems:

Quotes related to sub-theme one

- Participant 6: –our health problems are asthma, hypertension, gastritis, sometimes fever. Family members feel burden with our problems.
- Participant 3: –I am continuously taking medicine related to mental problems but don‘t know the exact name of the problem. Feeling weakness, just staying at home, cannot work.
- Participant 5: –I have problem of piles for a long time, more affected last year.

  This year, I am fine with soft and cool food.

Sub-theme two: Dissatisfaction with aging and social relationship

Quotes related to sub-theme two

- Participant 8: –The elderly life is the worst life among all age group.
- Participant 3: –If we have chautara (meeting place), park or any place or building, we will be happy by sharing of experiences.
- Participant 5: –We should go to the neighbours and they also should come to our house for helping each other. Further expressed the neighbours are like brothers or sisters.
- Participant 2: –Sharing and exchanging culture of community and neighbors is decreasing, the village is becoming like city area.
- Participant 8: –Only 5 in 20 son and in-laws take care of their older parents.
- Participant 6: –We do not have this type of discussion in our area, but we love this discussion among older people.

  Sub-theme three: Dissatisfaction with financial status

Quotes related to sub-theme three

- P7: –If we have adequate money, we feel happy and it is easy for maintaining daily expenditure. We have limited money as expenditure is more.
- P5: –If we give our money received from the government to family members, then only they will help us. The help and care are of two sided.
- P4: –If we have money, we will like to give to grandchildren, so feel happy on giving.

Sub-theme four: Psychological satisfaction

Quotes related to sub-theme four

- P5: –Nobody knows future, so we should not worry from the present for the futureproblem. The statement was supported by all participants.
- P6: –Now living peacefully and happily, and wish to die easily without having serious problems.

Sub-theme five: Spiritual awakening

Quotes related to sub-theme five

- Participant 7: –Previously we did not think that there is an existence of God, now we have realized it. After 50 years of age, religious activities have increased.
- Participant 3: –Listening to religious talks help to feel relax and comfort.
- Participant 4: –Doing social service for others is good.

Theme two: Personal habits and physiological factors affecting well-being and quality of life

Most of them believe that nature and preparation of food had changed during this age,

need easily digestible foods. Some of them expressed that the type of food like vegetarian or non-vegetarian affect in health. Older people feel difficult to digest non-vegetarian food. Some of the participants had just been vegetarian. All of them believe that food habit effect on well-being and quality of life.

When discussing the substance taking habit, majority of the participants expressed that smoking and alcohol badly affect their health. They accepted that the quarreling is increased with alcohol taking habit.

Regarding sleep habit, they expressed that the realization of less sleep during elderly. Occasionally, some elderly had felt wakefulness or whole night waking. Most of the elderly participants do not sleep during day. Most of the participants do not have suspiciousness as they expressed. They usually participate in social and religious activities.

Sub-theme one: Realizing importance of vegetarian diet

Quotes related to sub-theme one

- Participant 3: –Vegetable diet like green vegetables help to feel fresh, energetic and digested easily. But after taking non-vegetable diet, feel heavy.
- Participant 6: –Green vegetable is the main thing for our health.

Sub-theme two: Realizing bad effects of smoking and alcohol

Quotes related to sub-theme two

- Participant 7: –We know that smoking cause disease but I am using nicotine.
- Participant 1: –Previously I used to take both substance but now only drink tea.

- Participant 2: –Both substances increase disease and quarreling in family.

Sub-theme three: Disturbed sleep pattern

Quotes related to sub-theme three

- Participant 6: –Night urine disturbs sleep, our sleep is not like during young age.
- Participant 7: –If we feel tense, remember previous bad events, feeling of restlessness, that effect on sleep then health.
- Participant 3: –I could not sleep whole night, completely wakeful occasionally.
- Participant 8: –If we could not sleep at night, we feel sick at morning. Supported by all participants.

Theme Three: Acceptance of elderly appearance and abilities

Most of the participants expressed their perception of elderly appearance as a natural process and accepted it even by remembering their parents and grandparents. They compared with aging process of plant also.

Sub-theme one: Positive attitude and acceptance of aging process

Quotes related to sub-theme one

- Participant 6: –Old age is a natural process, our grandfather and father also became old and then died. So we need to accept this change.
- Participant 2: – No other way rather than accepting it.
- Participant 5: – It is like development of tree, same apply with human.
- Participant 3: –We remember our father‘s activities; he used to sit in balcony and we used to work. Now same condition came for us, our children should work for us. So, accept this fact.
- Participant 8: –We have become hopeless for outside work. Supported by all participants.

Theme four: Solution to the elderly problems/Management of the elderly problems Most of the elderly people expressed that an active or busy elderly will have less problems. So they expressed that self-motivation to be busy may also be a way to preventor solve problems. All participants expressed that they need spiritual places and meeting places so that they can have communication opportunity with their group. They expectsimple support and positive attitude from the care giver.

Sub-theme one: Willing to perform age appropriate activities

Quotes related to sub-theme one

- Participant 7: –We should bring out sweating by working. Active and busy elderly will have less problems.
- Participant 3: –We simply sit at home, if we work as per our capacity, appetite and self-confidence also increased. Supported by all participants.
- Participant 5: –Older people need to participate in interaction and religious activities to feel happy and fresh. Older mothers have higher need of this comparatively. Supported by all participants.
- Participant 6: –Discussion by meeting other people in a proper place helps to build confidence also. So we need such place in our locality.

Sub-theme two: Helping role of care giver

Quotes related to sub-theme two

- Participant 2: –The care taker happily provided food even 'khichadi and hot water', as per older people's health is also valuable. Supported by all participants.
- Participant 6: –we expect care only during sick period.

Sub-theme three: Dissatisfaction with local health services

Quotes related to sub-theme three

- Participant 7: –Health post is present here but no medicine is available. So, people go to private clinic than health post.
- Participant 4: –Government said that medicine is free but it is not available here. Supported by all participants.
- Participant 5: –There is health insurance of older people by the Government, we expect total support but it is not possible.

Theme five: Knowledge on provision of various support provided by the Government

Majority of the participants expressed that they are not aware about geriatric services in government hospital i.e. separate geriatric ward and travelling discount by fifty percent. However, they were well-informed about free health services in the governmental health centre and provision of social security fund for the senior people aged 68 years and above. They were satisfied with government social policy. They further expected government full support to those elderly who are really needy and poor.

Sub-theme one: Inadequate awareness of government services for senior citizens

Quotes related to sub-theme one

- Participant 3: – We have to pay only half fare for bus service. This discount is only in Kathmandu, not available here.
- Participant 5: –I don't know the provision of geriatric ward in the hospital. Supported by most of the participants.
- Participant 8: –The government should provide complete support to those elderly who are really needy and poor.

Theme six: Expectation from community health nurse

Most of the participants shared that they would be so happy if nurse gives services in their community. They further expressed that they have not received such services yet. Their expectations from the community nurse were health education, examination, nutrition, exercise, activities and counselling services.

Sub-theme one: Desired health services by CHN

Quotes related to sub-theme one

- Participant 2: –Community nurse interact at home only even reduce our health problems. Checking and getting information will help us by getting fast treatment. Supported by all participants.
- Participant 5: –Their examination, suggestion, education at our home, are very beneficial.
- Participant 5: –Counselling service for individual health is very important.

4.2 Results of the quantitative data

The present study mentions the results on the following sub-headings:

1. Comparative description of socio-demographic characteristics of the senior citizens between control and interventional group.
2. Comparative description of current problems and health related behaviour of the senior citizens between control and interventional group.
3. Effectiveness of comprehensive nursing interventions on well-being status of thesenior citizens living in rural community.
4. Effectiveness of comprehensive nursing interventions on quality of life status ofthe senior citizens living in rural community.
5. Relationship between well-being and quality of life of the senior citizens living inrural community.
6. Comparative description of the factors associated with the well-being of the senior citizens.
7. Comparative description of the factors associated with the quality of life of thesenior citizens.

4.2.1 Description of the socio-demographic characteristics of the senior citizens

Table 4a: Socio-demographic characteristics of the senior citizens in interventional and control group N=120

Socio-demographic Characteristics	Category	Control Group (60)		Interventional Group (60)		χ^2/Fisher's Exact* Test	df	P Value
		f	%	f	%			
Age Group (in years)	60-64	27	(45.0)	28	(46.7)	2.71	2	0.26
	65-69	9	(15.0)	15	(25.0)			
	70-75	24	(40.0)	17	(28.3)			
	Mean±SD	66.80±5.53		65.70±5.21				
Gender	Male	25	(41.7)	24	(40.0)	0.034	1	0.853
	Female	35	(58.3)	36	(60.0)			
Ethnicity	Brahmin	18	(30.0)	40	(66.7)	72.25*	3	**0.000****
	Chhetri	1	(1.7)	11	(18.3)			
	Janajati	41	(68.3)	1	(1.7)			
	Dalit	0	(0.0)	8	(13.3)			
Educational Status	Illiterate	24	(40.0)	47	(78.3)	22.81*	4	**0.000****
	Literate	21	(35.0)	12	(20.0)			
	Primary	6	(10.0)	1	(1.7)			
	Secondary	8	(13.3)	0	(0.0)			
	Higher Secondary	1	(1.7)	0	(0.0)			
Marital Status	Unmarried	2	(3.3)	0	(0.0)	3.79*	3	0.256
	Married	40	(66.7)	41	(68.3)			
	Widow/ Widower	14	(23.3)	18	(30.0)			
	Divorced/ Separated	4	(6.7)	1	(1.7)			

P significant at p<0.05, **highly significant at p<0.01

According to Table 4a, the majority of the 120 senior citizens (control 60 and interventional 60) were in the age group of 60-64 years; 46.7% were in the interventional group and 45.0% were in the control group. The mean age in the

control group was 66.80±5.53 and in the interventional group it was 65.70±5.21. In terms of gender, 60.0% of the interventional group and 58.3% of the control group were female. The bulk of the population, 66.7 % in the interventional group and 30.0 % in the control group, identified as Brahmin. Regarding the senior citizens' level of education, the intervention group had a majority of illiterates (78.3%), whereas the control group had just 40.0%. Concerning marital status, 68.3 in interventional and 66.7% in control group of senior citizens were married.

Table 4b: Socio-demographic characteristics of the senior citizens in interventional and control group N=120

Socio-demographic Characteristics	Category	Control Group (60)		Interventional Group (60)		χ^2/Fisher's Exact* Test	df	P Value
		f	%	f	%			
Religion	**Hindu**	53	(88.3)	56	(93.3)	11.09*	2	**0.002**
	Buddhist	7	(11.7)	0	(0.0)			
	Christian	0	(0.0)	4	(6.7)			
MotherTongue	**Nepali**	31	(51.7)	59	(98.3)	39.80*	2	**0.000****
	Tamang	8	(13.3)	1	(1.7)			
	Newari	21	(35.0)	0	(0.0)			
Types of Family	**Nuclear**	13	(21.7)	12	(20.0)	6.23*	2	**0.046**
	Joint	39	(65.0)	47	(78.3)			
	Extended	8	(13.3)	1	(1.7)			
Number of Children	**No Child**	5	(8.6)	1	(1.7)	15.86*	4	**0.002**
	1-2 Children	11	(19.0)	11	(18.3)			
	3-4 children	28	(48.3)	14	(23.3)			
	5-6 Children	9	(15.5)	18	(30.0)			
	More than six Children	5	(8.6)	16	(26.7)			

P significant at p<0.05. **highly significant at p<0.01

According to Table 4b, 88.3% and 93.3% of senior citizens in the control and interventional groups, respectively, identified as Hindus. The majority of senior citizens, 98.3% in the interventional group and 51.7% in the control group, identified Nepali as their mother tongue. In contrast, just a small number, 13.3% in the control group and 1.7% in the interventional group, identified Tamang as their mother tongue. Approximately 65.0% (control group) and 78.3% (interventional group) of senior citizens were living in a joint family. In the control group, 48.3% of senior citizens had three to four children, compared to 23.3% in the interventional group. Only 21 senior citizens, 26.7% in the interventional group and 8.6% in the control group had more than six kids.

Table 4c: Socio-demographic characteristics of the senior citizens in interventionaland control group N=120

Socio- demographic Characteristics	Category	Control Group (60)		Interventional Group (60)		χ^2/ Fisher's Exact* Test	df	P Value
		f	%	f	%			
Current Employment Status	Service	2	(3.3)	0	(0.0)	15.50*	5	**0.000****
	Agriculture	17	(28.3)	35	(58.3)			
	Household chores	34	(56.7)	25	(41.7)			
	Business	4	(6.7)	0	(0.0)			
	Retired	2	(3.3)	0	(0.0)			
	Others	1	(1.7)	0	(0.0)			
Management of Personal Expenditure	Service/Earning	24	(40.0)	20	(33.3)	9.17*	4	**0.38**
	Personal Saving	1	(1.7)	3	(5.0)			
	Social Security Fund	18	(30.0)	30	(50.0)			
	Pension	3	(5.0)	0	(0.0)			
	Family'sSupport	14	(23.3)	7	(11.7)			
Current LivingStatus	Single	3	(5.0)	6	(10.0)	4.46*	3	0.200
	Only with Spouse	15	(25.0)	7	(11.7)			
	With Family	41	(68.3)	45	(75.0)			
	With Relatives	1	(1.7)	2	(3.3)			
Type of House	Kaccha	18	(30.0)	29	(48.3)	4.23	1	**0.040**
	Pakka	42	(70.0)	31	(51.7)			
Drinking Water	Municipal Corporation	9	(15.0)	0	(0.0)	7.688##	1	0.006
	Natural Resources	51	(85.0)	60	(100.0)			
Means of Transportation	Public	58	(96.7)	59	(98.3)	0.000##	1	1.000
	Private	2	(3.3)	1	(1.7)			

##Yates continuity, P significant at p<0.05. **highly significant at p<0.01

Table 4c shows that 56.7% of the senior citizens in the control group were engaged in household chores. In contrast, the majority (58.3%) in the interventional group were involved in agriculture. In terms of managing their own expenses, 40.0% of the control group did so based on earnings, compared to 50.0% of the interventional group who used a Government-provided social security fund. Regarding current living status, 68.3% in the control and 75.0% in the interventional group of senior

citizens were staying with their family. Most of the senior citizens had pakka-style homes, with 70.0% in the control group and 51.7% in the interventional group. Both groups got their drinking water from natural sources, and their main mode of mobility was a public vehicle. One hundred percent of participants utilized private restrooms.

4.2.2 Description of current health problems and health related behaviour of the senior citizens

Table 5: Current health problems of the senior citizens between interventional and control group at baseline assessment

N=120

Current Health Problems#	Control Group (60)		Interventional Group (60)		Total
	f	%	f	%	
Gastritis	29	48.3	25	41.7	54
Arthritis	17	28.3	24	40.0	41
Chronic Pain/Backache	16	26.7	22	36.7	38
Sleep Problems	12	20.0	18	30.0	30
Asthma	14	23.3	15	25.0	29
Hypertension	22	36.7	7	11.7	29
Malnutrition	6	10.0	14	23.3	20
Diabetes	7	11.7	0	0.0	7
Heart Disease	3	5.0	1	1.7	4
Gynecological Problem (N=71)	Control (35)		Interventional (36)		3
	1	2.8	2	5.5	
Other Problems	24	40.0	21	35.0	45

#**Multiple response**

The most frequent current health issues, according to table 5, were gastritis (48.3% in the control group and 41.7% in the interventional group), arthritis (28.3% in the control group and 40.0% in the interventional), chronic pain/backache (26.7% in the control and 36.7% in the interventional), asthma (23.3% in the control and 25.0 in the interventional), hypertension (36.7% in the control and 11.7% in the interventional), and sleep issues (20.0% in the control group and 30.0% in the interventional) and other issues (40.0% in the control group and 35.0% in the interventional), such as digestion related problems, thyroid problems, urinary problems, obesity, renal problem, sore, cancer, dementia, lipoma, high cholesterol, eye problems, mental health problems, allergies, ankle injuries,hydrocele, vitiligo, filariasis, varicose veins, sexual issue and corns on the feet. The vaginal discharge/itching and uterine prolapse were the main gynaecological problems of the senior women. In average, there were 2.51 current health problems for each senior citizen in control group and 2.48 problems for each senior citizen in the interventional group which was comparable.

Table 6a: Health related behaviour of the senior citizens between interventional and control group at baseline assessment N=120

Behaviour	Category	Control Group (60)		Interventional Group(60)		χ^2/Fisher's Exact* Test	df	P value
		f	%	f	%			
Average water intake habit	2-4 glass/day	29	48.3	29	48.3	0.076*	2	1.000
	5-8 glass/day	27	45.0	27	45.0			
	9-14 glass/day	4	6.7	4	6.7			
Food intake habit	Two times/day	25	41.7	37	61.7	5.468*	2	0.063
	Three times/day	29	48.3	21	35.0			
	Four times/day	6	10.0	2	3.3			
Fasting habit	Yes	19	31.7	29	48.3	3.472	1	0.062
	No	41	68.3	31	51.7			
Sleeping habit	4-6 hours/day	21	35.0	21	35.0	2.14*	2	0.39
	7-8 hours/day	33	55.0	37	61.6			
	9-10 hours/day	6	10.0	2	3.3			
Regular physical exercise	Yes	5	8.3	10	16.7	1.905	1	0.168
	No	55	91.7	50	83.3			

P significant at p<0.05

Table 6a reveals that in each category, about half of the senior citizens (48.3%) only drank 2-4 glasses of water each day. Only 6.7% of senior citizens in each group reported drinking an average of 9 to 14 glasses of water each day. Similar to this, the majority of senior citizens (61.7%) were in the interventional group compared to the control group (41.7%), and more than half of all senior citizens (51.7%) had just a two times habit of eating. Only 6.7% of all senior citizens reported a daily practice of eating four times as much. Regarding kind of food, the majority of senior citizens

(85.0%) identified as non- vegetarian, with the control group somewhat more non-vegetarian (88.1%) than the interventional (81.7%) group. More specifically, most senior citizens (78.3%) were following a normal diet whereas 21.7% were on a special diet (31.7% in the control and 11.7% in the interventional) as per their health and disease conditions. Regarding their fasting habit, most senior citizens had no fasting habit (51.7% in the interventional and 68.3% in the control). Out of 120 senior citizens, more than half (58.3%) had 7-8sleeping hours at night (55.0% in the control and 61.6% in the interventional group). Further specifying the sleep, only 41.7% had napping habit more in the interventional group. The duration of napping was ranging from 30 minutes to 2 hours. Regarding regular physical exercise, most senior citizens had no habit of regular physical exercise i.e. 91.7% in the control and 83.3% in the interventional group. Only 4.2% of the senior citizens practiced exercise daily otherwise thrice a week and once a week.

Table 6b: Health related behaviour of the senior citizens between interventional and control group at baseline assessment N=120

Behaviour	Category	Control Group (60)		Interventional Group(60)		χ^2/Yates Continuity correction** Test	df	P Value
		f	%	f	%			
Regular health check-up	Yes	3	5.0	6	10.0	0.480**	1	0.488
	No	57	95.0	54	90.0			
Any health screening test	Yes	3	5.0	2	3.3	0.000**	1	1.000
	No	57	95.0	58	96.7			
Self-medication without prescription	Yes	30	50.0	28	46.7	0.133	1	0.715
	No	30	50.0	32	53.3			
Sexually active behavior at present	Yes	29	48.3	31	51.7	0.133	1	0.715
	No	31	51.7	29	48.3			
Leisure time activities	Yes	58	96.7	53	88.3	1.922**	1	0.166
	No	2	3.3	7	11.7			
Substance taking bahaviour	Yes	30	50.0	38	63.3	2.172	1	0.141
	No	30	50.0	22	36.7			

P significant at p<0.05

Table 6b demonstrates that the majority of senior citizens (92.5%) did not have a regular health checkup habit (90.0% in the interventional group and 95.0% in the control group), whereas only 7.5% did. Only 5.0% of the interventional group had a habit of having their health checked annually, while the rest had intervals between 3 months and 2 years.

Similar to this, the majority of senior citizens (95.8%) reported having no routine health screening tests. Only 4.2% of senior citizens (5.0% in the control group and 3.3% in the interventional group) reported having a screening test habit. A habit of self-medication without a prescription was practiced by 48.3% of all senior citizens 50.0% in the control group, and 46.7% in the interventional group. Moreover, 0.8% of respondents had experienced adverse drug reaction. Considering sexual bahaviour, half of the total senior citizens (50.0%) were sexually active, more in the interventional group (51.7%) than the control. Moreover, 6.3% of senior citizens had experienced a change in pattern of sexual activity (interventional 9.7% and control 3.1%).

The majority of senior citizens (92.5%), 96.7% in the control group, and 88.3% in the interventional group, reported a habit of engaging in leisure activities. In addition, the majority (54.1%) of people in the interventional group and the control group watched TV and spoke with friends during their leisure time, respectively (66.0% and 43.0%). More than half (56.7%) of the senior citizens overall engaged in substance taking behaviour, compared to 63.3% in the interventional group and 50.0% in the control group. Bidi /Cigarettes were used the most often (2–20 times day), followed by nicotine (2–6 times daily), and alcohol (1–3 glasses daily). The senior citizens also used jaad and tamakhu, two native substances.

4.2.3 Effectiveness of comprehensive nursing interventions on well-being of the senior citizens in rural community

$H0_1$: Comprehensive nursing interventions would not be effective in improving well-being of the senior citizens in rural community at $p<0.05$ level of significance,as measured by well-being tool.

H_1: Comprehensive nursing interventions would be effective in improving well-being of the senior citizens in rural community at $p<0.05$ level of significance, as measured by well-being tool.

4.2.3.1 Well-being status of the senior citizens in rural community

Table 7: Frequency distribution of well-being of the senior citizens in both groupsbetween baseline and after one month of intervention

Well-Being	Control				Interventional			
	Baseline (n=60)		After 1 month (n=57)		Baseline (n=60)		After 1 month (n=56)	
	f	%	f	%	f	%	f	%
Poor (<P50)	24	40.0	20	35.1	36	60.0	2	3.6
Good (≥P50)	36	60.0	37	64.9	24	40.0	54	96.4

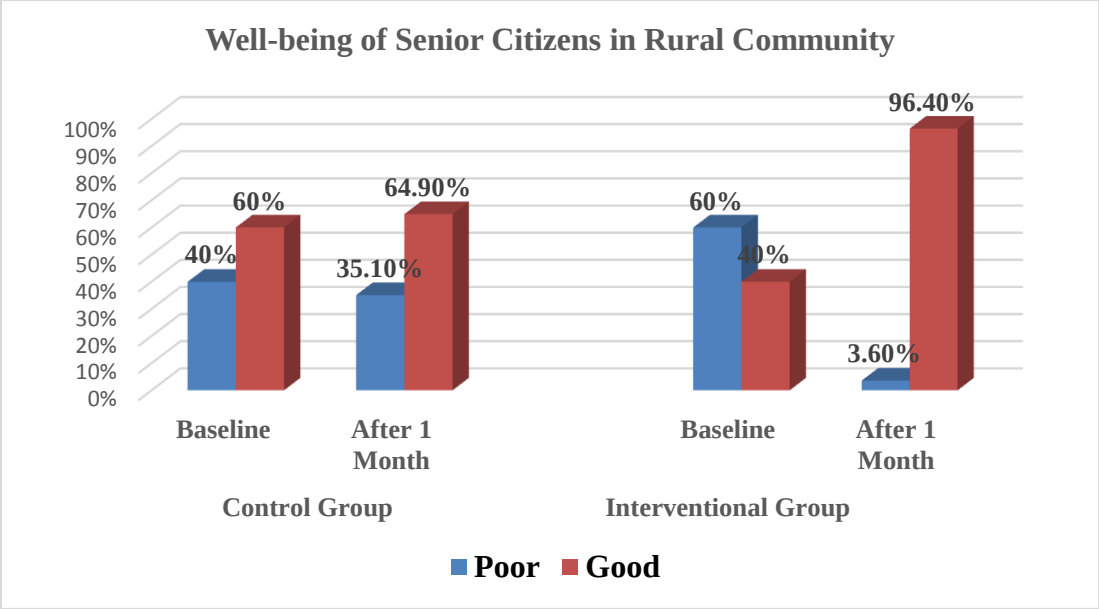

Figure 7: Bargraph showing comparision of well-being of senior citizens between interventional and control groups

Table 7 and figure 7 show that sixty percent of the senior citizens in interventional group had poor well-being at baseline assessment whereas after one month only few senior citizens (3.6%) had poor well-being and most of the senior citizens (96.4%) had good well-being after the intervention. When observing in the control group, forty percent of the senior citizens had poor well-being at baseline and it remains like same after one month, 35.1% had poor well-being. Therefore, it is interpreted that the CNIs was effective in improving well-being of the senior citizens in the interventional group.

Table 8: Frequency distribution of well-being of the senior citizens in interventional group at baseline, after one month, three months and six months of interventions

Well Being	Baseline (n=60)		After 1 month (n=56)		After 3months (n=56)		After 6 months (n=54)	
	f	%	f	%	f	%	f	%
Poor (<P50)	36	60.0	2	3.6	2	3.6	0	0.0
Good (≥P50)	24	40.0	54	96.4	54	96.4	54	100.0

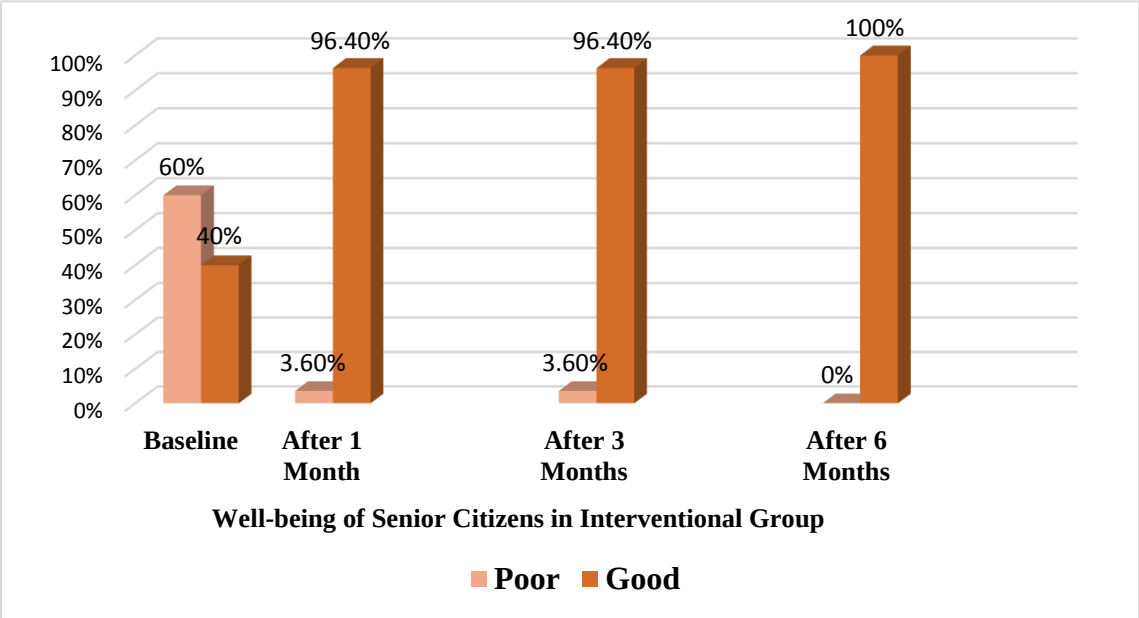

Figure 8: Bargraph showing well-being of senior citizens in the interventional group

Table 8 and figure 8 depict that more than half (60%) of the senior citizens had poor well-being at baseline assessment, 3.6% after one and three months and no one had poor well-being after six months of the intervention. On the other side, less than half (40%) of the senior citizens had good well-being at baseline, increased to 96.4% in

one and three months and all seniors had good well-being after six months of the intervention.

4.2.3.2 Domain wise well-being status of the senior citizens

Table 9: Effectiveness of comprehensive nursing interventions on physical well-being of the senior citizens in both groups after one month of intervention

Domain	Group	BaselineMedian (I.Q.R.)	After 1 month Median (I.Q.R.)	Wilcoxon Sign rank test	P value
Physical - Well Being	Control	(n=60) 61 (62 -57)	(n=57) 61 (63 - 59)	2.495	0.01
	Intervention	(n=60) 61 (62- 58)	(n=56) 62 (62 - 60)	1.874	0.061
Mann-Whitney U test		1450.50	1541.00		
p-value		0.397	0.747		

P significant at <0.05 level

Table 9 shows that there was increment in the median value of physical well-being from baseline to after one month(61 to 62) within the interventional group which was not significant at 0.05 level of significance. While comparing between the groups, the medianvalue of interventional group in one month after intervention (62) was greater than the after one month of control group (61) which was also not significant at 0.05 level of significance.

Table 10: Effectiveness of comprehensive nursing interventions on psychological well-being of the senior citizens in both groups after one month of intervention

Domain	Group	Baseline Median(I.Q.R.)	After 1 month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Psychological Well-being	Control	(n=60) 94 (97–87.25)	(n=57) 94 (98 -88)	1.788	0.07
	Intervention	(n=60) 91.50 (95.75-86.25)	(n=56) 104 (106-100)	6.518	**0.000****
Mann-Whitney U test		1321.50	394.50		
p-value		0.114	**0.000****		

****highly significant at p<0.001**

Table 10 reveals that the median value of after one month of intervention was higher (104) than baseline (91.50) in the interventional group which was highly significant statistically (<0.001). Comparing between the groups, the median of after one month in interventional group was greater (104) than in the non-interventional group (94). The significant difference was found between the groups at 0.05 level of significance.

Table 11: Effectiveness of comprehensive nursing interventions on social well-being of the senior citizens in both groups after one month of intervention

Domain	Group	Baseline Median(I.Q.R.)	After 1 month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Social Well-being	Control	(n=60) 63 (66 - 61)	(n=57) 63 (65 - 60)	1.077	0.28
	Intervention	(n=60) 61 (64 -58)	(n=56) 68 (70.75 - 66)	6.518	**0.000****
Mann-Whitney U test		1210.00	504.00		
p-value		0.026	**0.000****		

****highly significant at p<0.001**

The findings of table 11 reveals that after one month median of social well-being was higher (68) than baseline (61) in the interventional group indicating significant difference (<0.001). Similarly, when comparing between the two groups, after one month median of interventional group was higher (68) than after one month of the control group (63) which showed statistically significant difference (p <0.001) between the groups.

Table 12: Effectiveness of comprehensive nursing interventions on spiritual well-being of the senior citizens in both groups after one month of interventions

Domain	Group	BaselineMedian (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Spiritual Well-being	**Control**	**(n=60)** 64.50 (66 - 62)	**(n=57)** 64 (67 - 61)	0.051	0.96
	Intervention	**(n=60)** 63 (65 - 60)	**(n=56)** 70 (72 - 67)	6.519	**0.000****
Mann-Whitney U test		1191.00	473.00		
p-value		0.020	**0.000****		

****highly significant at p<0.001**

Table 12 depicts that median of spiritual well-being after one month of intervention in interventional group was higher (70) than their baseline median (63) which was highly significant statistically ($p<0.001$). Comparing between the groups, the median after one month of intervention in interventional group was higher (70) than the control group (64) showing significant difference between the groups ($p<0.001$).

Table 13: Effectiveness of comprehensive nursing interventions on overall well-being of the senior citizens in both groups after one month of intervention

All Domains	Group	BaselineMedian (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Overall Well-being	**Control**	279.50 (289.75-271.5)	280 (290-272)	0.964	0.33
	Intervention	273.50 (280-266)	301 (307.75-296)	6.511	**0.000****
Mann-Whitney U test		1478.50	935.00		
p-value		0.500	**0.000****		

****highly significant at p<0.001**

The overall well-being of interventional group was higher after one month than the baseline as found by the median difference (301-273.50), indicating statistically highly significant (p<0.001). When comparing between the groups, the median of interventional group after one month was higher (301) than the control (280) which showed significant difference at p 0.05 level of significance.

4.2.3.3 Well-being Status of the Senior Citizens in Interventional Group

Table 14: Physical well-being of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Well-being		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Physical Well-being	**Baseline** (n=60)	1.94	61 (62- 58)	59.87±3.43	51.59	**0.000****
	One Month (n=56)	2.18	62 (62 - 60)	60.68±2.34		
	Three Months (n=56)	2.63	62 (62 –60.25)	60.46±3.96		
	Six Months (n=54)	3.26	62 (63 - 61)	61.57±2.38		

****highly significant at p<0.001**

Table 14 depicts that there was gradual increment in the mean score of physical well-being from 59.87±3.43in baseline to 60.68±2.34 in one month, 60.46±3.96 in three months and further 61.57±2.38 in six months of the intervention in the interventional group of senior citizens. The analysis of repeated measure (Friedman test) showed statisticalsignificant difference at p<0.001 level of significance.

Table 15: Psychological well-being of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Well-being		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Psychological Well-being	**Baseline** (n=60)	1.04	91.50 (95.75-86.25)	89.78±8.03	103.03	**0.000****
	One Month (n=56)	3.34	104 (106-100)	103.00±6.15		
	Three Months (n=56)	2.84	103 (106– 97.25)	101.80±5.82		
	Six Months (n=54)	2.78	102 (105-99)	102.04±5.53		

****highly significant at p<0.001**

Table 15 shows that there was highly increment in the mean score of psychological well- being of the senior citizens from 89.78±8.03 in baseline to 103.00±6.15 after one month of intervention in the interventional group. The increased mean was stable (101.80±5.82 & 102.04±5.53) after three and six months of intervention. Analysis by repeated measure within the interventional group (Friedman test) showed statistically significant difference at p<0.001 level of significance.

Table 16: Social well-being of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Well-being		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Social Well-being	**Baseline** (n=60)	1.13	61 (64- 58)	61.02±4.06	96.68	**0.000****
	One Month (n=56)	3.31	68 (70.75-66)	68.86±7.45		
	Three Months (n=56)	3.05	67 (69.75 -64)	67.41±3.78		
	Six Months (n=54)	2.51	66 (68.25 -64)	66.87±3.64		

****highly significant at p<0.001**

Table 16 reveals that there was highly increment in the mean score of the social well-being among senior citizens i.e. 61.02±4.06 at baseline to 68.86±7.45 in one month 67.41±3.78 in three months and 66.87±3.64 in six months after interventions. Analysis by repeated measure (Friedman test) in the interventional group showed statistically significant difference at $p<0.001$ level of significance.

Table 17: Spiritual Well-being of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Well-being		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Spiritual Well-being	**Baseline** (n=60)	1.07	63 (65 - 60)	62.12±4.55	98.78	**0.000****
	One Month (n=56)	3.24	70 (72 - 67)	69.48±3.88		
	Three Months (n=56)	3.03	69.50 (72 -67)	69.11±3.90		
	Six Months (n=54)	2.66	68.50 (70.25 - 66)	68.44±3.47		

****highly significant at p<0.001**

Table 17 shows that there was highly increment in the mean score of spiritual well-being among senior citizens in the interventional group i.e. 62.12±4.55 in baseline to 69.48±3.88 in one month after intervention. The mean score was between 69.11±3.90 to 68.44±3.47 in three and six months of intervention. Analysis by repeated measure (Friedman test) showed statistically significant difference at $p<0.01$ level of significance.

Table 18: Overall well-being of the senior citizens in the interventional group at baseline, after one, three and six months of intervention

Well-being		Mean Rank	Median(I.Q.R.)	Mean ± SD	Friedman Test	P Value
Overall Well-being	**Baseline** (n=60)	1.27	273.50 (280-266)	272.78±12.99	80.59	**0.000****
	One Month (n=56)	3.15	301 (307.75-296)	302.02±14.06		
	Three Months (n=56)	2.88	299 (306.75-291.25)	298.79±12.53		
	Six Months (n=54)	2.70	299 (305-290.75)	298.93±11.03		

****highly significant at p<0.001**

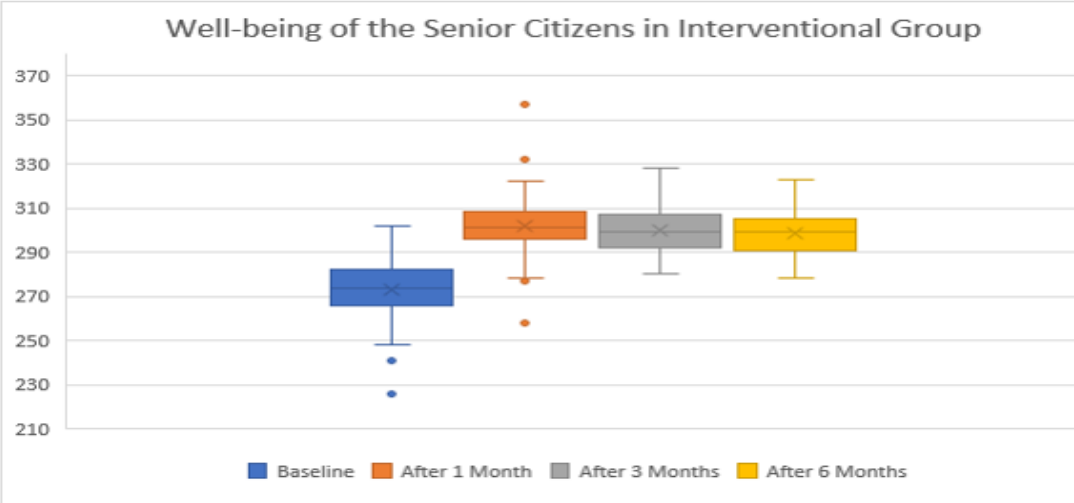

Figure 9: Box plot representing effectiveness of comprehensive nursing interventions in well-being of senior citizens in the interventional group

Table 18 and figure 9 depict that the mean of the overall well-being of the senior citizens was increased from baseline (272.78±12.99) to after one month

(302.02±14.06). And the increased mean was stable in three months (298.79±12.53) and six months (298.93±11.03) after the intervention. Analysis by repeated measure (Friedman test) showed statistically significant difference at $p<0.01$ level of significance.

In summary, the overall well-being including all domains, there was significant difference at $p<0.001$, level of significance from baseline assessment to after one, three and six months of the intervention in the interventional group of the senior citizens.

Therefore, the null hypothesis ($H0_{1)}$ was rejected and the research hypothesis ($H_{1)}$ was accepted. So, there was significant improvement on well-being of the senior citizens afterthe comprehensive nursing interventions as measured by elderly well-being tool. And the improvement was observed till three and six months of the intervention as long term effect. Based on above all the findings, it is concluded that the comprehensive nursing interventions is an effective program in improving well-being of the senior citizens in rural community.

4.2.4 Effectiveness of comprehensive nursing intervention on quality of life of the senior citizens

$H0_2$: Comprehensive nursing interventions would not be effective in improving quality of life of senior citizens in rural community, at <0.05 level of significance as measured by WHOQOL-BREF.

H_2: Comprehensive nursing interventions would be effective in improving quality of life of senior citizens in rural community, at <0.05 level of significance as measured by WHOQOL-BREF.

4.2.4.1 Quality of life of the senior citizens in rural community

Table 19: Frequency distribution of quality of life of the senior citizens in both groups between baseline and after one month of intervention

Quality of Life	Control				Interventional			
	Baseline(n=60)		After 1 month (n=57)		Baseline (n=60)		After 1 month (n=56)	
	f	%	f	%	f	%	f	%
Poor (<P50)	28	46.7	22	38.6	30	50.0	1	1.8
Good (≥P50)	32	53.3	35	61.4	30	50.0	55	98.2

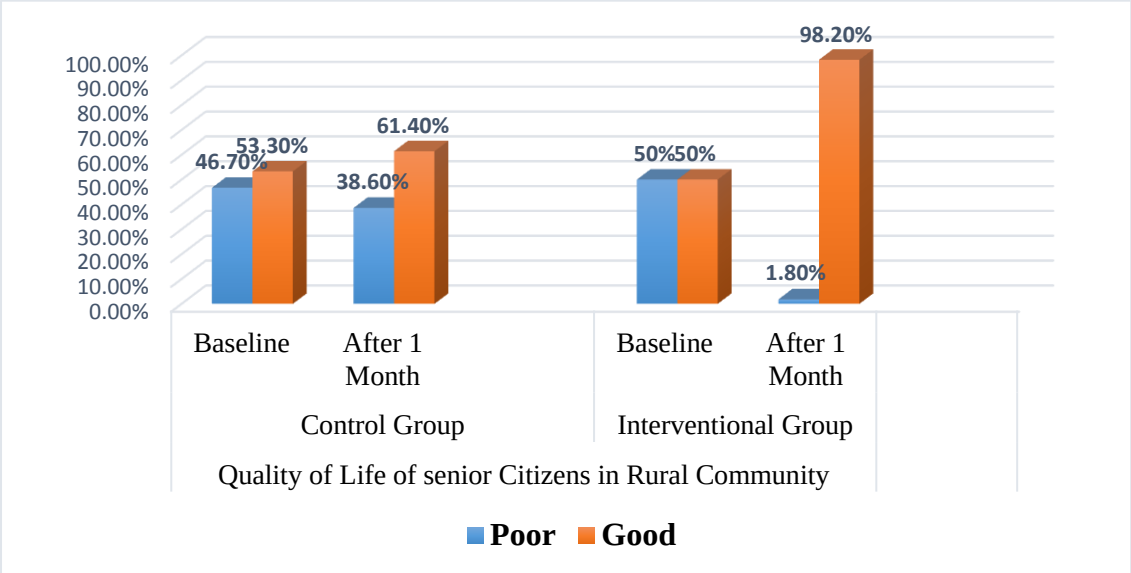

Figure 10: Bargraph showing comparision of quality of life of senior citizens between interventional and control groups

Table 19 and figure 10 reveal that in the interventional group, half of the senior citizens (50.0%) had poor and another half (50.0%) had good level of quality of life at baseline. After one month of the interventions, most of the senior citizens (98.2%) had good QOL whereas only 1.8% had poor QOL. On the contrary, there was slight changes in the level of QOL among senior citizens in the control group between

baseline (46.7% poor QOL) and after one month of interventions (38.6% poor QOL). Therefore, it is interpreted that the CNIs was effective in improving quality of life of the senior citizens in the interventional group.

Table 20: Frequency distribution of quality of life of the senior citizens in interventional group at baseline, after one month, three months and six months of intervention

Quality of Life	Baseline (n=60)		After 1 month(n=56)		After 3 months(n=56)		After 6 months (n=54)	
	f	%	f	%	f	%	f	%
Poor (<P50)	30	50.0	1	1.8	0	0.0	0	0.0
Good (≥P50)	30	50.0	55	98.2	56	100.0	54	100.0

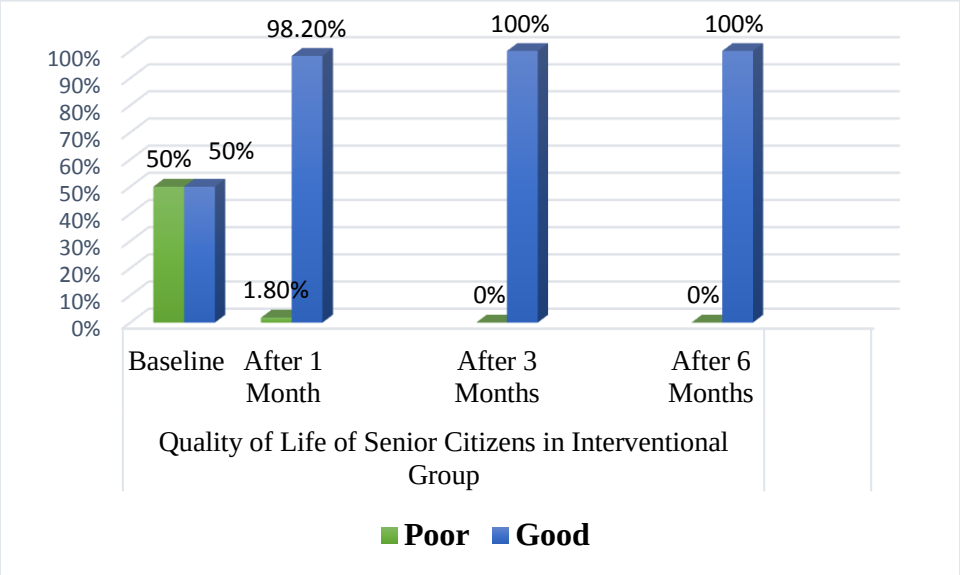

Figure 11: Bargraph showing quality of life of senior citizens in the interventional group

Table 20 and figure 11 show that equal number of the senior citizens (50.0%) had poor and good level (50.0%) of quality of life at baseline assessment. After one month of intervention, most of them (98.2%) had good QOL. Moreover, hundred percent of the senior citizens had good QOL in three and six months after intervention.

4.2.4.2 Domain wise Quality of life of the senior citizens in rural community

Table 21: Effectiveness of comprehensive nursing interventions on physical domain of QOL of the senior citizens after one month of intervention

Domain	Group	Baseline Median (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Physical Domain ofQOL	**Control**	**(n=60)** 22 (25 - 19)	**(n=57)** 23 (25- 20)	3.756	**0.000****
	Interventional	**(n=60)** 22 (24 -20)	**(n=56)** 27 (29-25)	6.523	**0.000****
Mann-Whitney U test		1470	542.5		
p-value		**0.000****	**0.000****		

****highly significant at p<0.001**

Table 21 reveals the difference in baseline and after one month median of physical domain of quality of life of the senior citizens. In the interventional group, after one month median was higher (27) than the baseline (22) showing statistical significance ($p<0.001$). When comparing between the groups, after one month median of the interventional group was higher (27) than the control group (23) which was highly significant statistically ($p<0.001$).

Table 22: Effectiveness of comprehensive nursing interventions on psychological domain of QOL of the senior citizens after one month of intervention

Domain	Group	Baseline Median (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Psychological Domain of QOL	**Control**	**(n=60)** 18 (20 -16)	**(n=57)** 18 (21-17)	3.097	0.002
	Interventional	**(n=60)** 19(20-16.25)	**(n=56)** 23 (24-21)	6.419	**0.000****
Mann-Whitney U test		1415.5	375		
p-value		0.296	**0.000****		

****highly significant at p<0.001**

Table 22 shows that after one month median of psychological QOL was higher (23) than the baseline median (19) in interventional group showing highly statistical significant ($p<0.001$). When compared between the groups, interventional group had higher median after one month (23) than the control group (18) which was highly significant ($p<0.001$).

Table 23: Effectiveness of comprehensive nursing interventions on social relationship domain of QOL of the senior citizens after one month of intervention

Domain	Group	Baseline Median (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Social Relationship Domain of QOL	**Control**	**(n=60)** 9 (10-8)	**(n=57)** 9 (10 -8)	0.943	0.346
	Interventional	**(n=60)** 8 (10 -8)	**(n=56)** 10 (11 - 9)	5.699	**0.000****
Mann-Whitney U test		1386.5	1020.5		
p-value		0.213	**0.000****		

****highly significant at p<0.001**

The median of social relationship domain of QOL after one month in interventional group was higher (10) than the baseline median (8) based on table 23, showing statistical significant difference (p<0.001). When comparing between the groups, after one month median of interventional group was higher (10) than the control group (9) which showed highly significant statistically (p<0.001).

Table 24: Effectiveness of comprehensive nursing interventions on environmental domain of QOL of the senior citizens after one month of intervention

Domain	Group	Baseline Median(I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p-value
Environmental Domain of QOL	**Control**	**(n=60)** 25 (26 -22)	**(n=57)** 25(26.50-22)	3.495	**0.000****
	Interventional	**(n=60)** 23 (24.75 -20)	**(n=56)** 28(29.75-26)	6.404	**0.000****
Mann-Whitney U test		1212.5	568		
p-value		**0.027**	**0.000****		

****highly significant at p<0.001**

Table 24 reveals that the median of environmental domain of QOL after one month in interventional group was higher (28) than the baseline median (23) showing statistically highly significant (p<0.001). When comparing the environmental QOL between the groups, after one month‘s median of interventional group was higher (28) than the control group (25) showing significant difference statistically (p<0.001).The significant difference was also found in median between baseline and after one month in the control group.

Table 25: Effectiveness of comprehensive nursing interventions on overall QOL of the senior citizens after one month of intervention

Quality of Life	Group	Baseline Median (I.Q.R.)	After One Month Median (I.Q.R.)	Wilcoxon Sign rank test	p- value
Overall Quality of Life	**Control**	**(n=60)** 79 (84-71)	**(n=57)** 82 (86-73.25)	3.576	**0.000****
	Intervention	**(n=60)** 78 (83-72)	**(n=56)** 94 (97-88.25)	5.016	**0.000****
Mann-Whitney U test		1691.50	585.00		
p-value		0.569	**0.000****		

****highly significant at p<0.001**

Table 25 reveals that the median of overall quality of life of the senior citizens after one month of intervention in interventional group was higher (94) than the baseline (78) showing statistically highly significant ($p<0.001$). When comparing the overall QOL between the groups, after one month‘s median of interventional group was higher (94) than the control group (82) which was significant difference statistically ($p<0.001$).

4.2.4.3 Quality of life of the senior citizens in interventional group in different timeperiod

Table 26: Physical domain of QOL of the senior citizens in interventional group atbaseline, after one, three and six months of intervention

Domain of QOL		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Physical QOL	**Baseline** (n=60)	1.28	22 (24-20)	21.65±3.72	84.778	**0.000****
	One Month (n=56)	2.65	27 (29-25)	26.64±2.56		
	Three Months (n=56)	3.08	28 (29-26)	27.36±2.92		
	Six Months (n=54)	3.00	28 (29-26.75)	27.76±2.35		

****highly significant at p<0.001**

Table 26 shows that the mean score of physical QOL of the senior citizens in the interventional group was increased from baseline 21.65±3.72, to one month 26.64±2.56, three months 27.36±2.92 and six months 27.76±2.35 after the intervention. Analysis by repeated measure (Friedman test) showed statistically significant difference at p<0.01 level of significance.

Table 27: Psychological domain of QOL of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Domain of QOL		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Psychological QOL	**Baseline** (n=60)	1.34	19 (20-16.25)	18.12±2.64	73.509	**0.000****
	One Month (n=56)	2.81	23 (24-21)	22.38±2.02		
	Three Months (n=56)	2.96	23 (24-22)	22.71±1.53		
	Six Months (n=54)	2.89	23 (24-22)	22.78±1.57		

****highly significant at p<0.001**

According to table 27, the mean score of the psychological QOL of the senior citizens was increased i.e.18.12±2.64 at baseline, 22.38±2.02 in one month, 22.71±1.53 in three months and 22.78±1.57 in six months after the interventions. Analysis by repeated measure (Friedman test) showed statistically significant difference at p<0.01 level of significance.

Table 28: Social relationship domain of QOL of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Domain of QOL		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Social Relationship QOL	**Baseline** (n=60)	1.58	8 (10-8)	8.62±1.39	65.201	**0.000****
	One Month (n=56)	2.47	10 (11-9)	9.88±1.26		
	Three Months (n=56)	2.85	10 (11-9)	10.29±1.14		
	Six Months (n=54)	3.11	11 (11-10)	10.58±1.00		

****highly significant at p<0.001**

As depicted from table 28, there was increment in the mean score of the social relationship domain of QOL in interventional group of the senior citizens i.e. 8.62±1.39 at baseline, 9.88±1.26 in one month, 10.29±1.14 in three months and 10.58±1.00 in six months after intervention. Analysis by repeated measure (Friedman test) showed statistically significant difference at p<0.001 level of significance.

Table 29: Environmental domain of QOL of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Domain of QOL		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Environmental QOL	**Baseline** (n=60)	1.78	23 (24.75-20)	22.68±2.86	27.23	**0.000****
	One Month (n=56)	3.07	28 (29.75-26)	27.57±2.19		
	Three Months (n=56)	3.69	29 (30-28)	29.23±1.52		
	Six Months (n=54)	1.46	22 (23-21)	21.72±1.17		

****highly significant at p<0.001**

Table 29 reveals that the mean score of environmental domain of QOL of the senior citizens in the interventional group was increased from baseline 22.68±2.86, to one month 27.57±2.19, three months 29.23±1.52 and six months 21.72±1.17 after the intervention. Analysis by repeated measure (Friedman test) showed statistically significant difference at $p<0.01$ level of significance.

Table 30: Overall quality of life of the senior citizens in interventional group at baseline, after one, three and six months of intervention

Quality of Life		Mean Rank	Median (I.Q.R.)	Mean ± SD	Friedman Test	P Value
Overall Qualityof Life	Baseline (n= 60)	1.27	78.50 (83-72)	76.63±9.16	98.551	0.000**
	One Month (n= 56)	2.31	94 (97.75-89.25)	93.29±6.74		
	Three Months(n= 56)	3.12	97 (101-94)	96.84±5.47		
	Six Months (n= 54)	3.31	98 (102-95)	98.26±4.76		

**highly significant at p<0.001

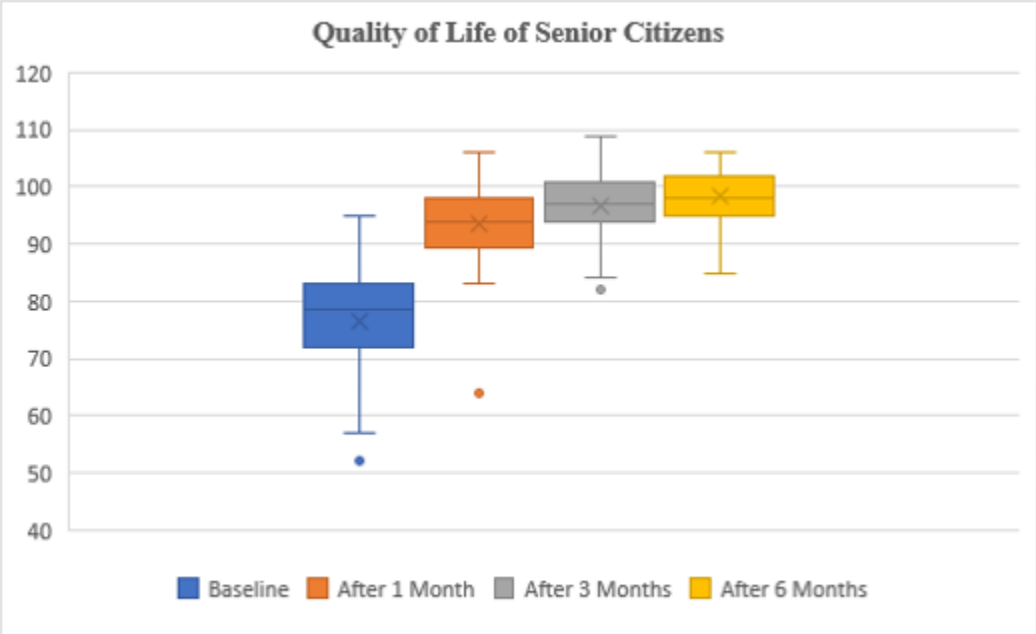

Figure 12: Bos plot representing effectiveness of comprehensive nursing interventions in quality of life of senior citizens in the interventional group

The overall quality of life of the senior citizens was increased as shown in table 30 and figure 12. The mean of the QOL was increased from 76.63±9.16 in baseline to 93.29±6.74 after one month, 96.84±5.47 after three months and 98.26±4.76 after six

months of the interventions. The repeated measures (Friedman test) shows statistically significant difference at $p<0.01$ level of significance.

Concluding all the domains of the quality of life including overall QOL, there was significant difference at $p<0.001$ level of significance in the interventional group of the senior citizens. Hence, the null hypothesis ($H0_{2)}$ was rejected and the research hypothesis (H_2) was accepted. Therefore it is concluded that there was a significant improvement in the quality of life of the senior citizens after the implementation of the CNIs.

4.2.5 Relationship between well-being and quality of life of the senior citizens

$H0_3$: There would be no significant correlation between well-being and quality of life of the senior citizens, at $p<0.05$ level of significance.

H_3: There would be a significant correlation between well-being and quality of life of the senior citizens, at $p<0.05$ level of significance.

N=120

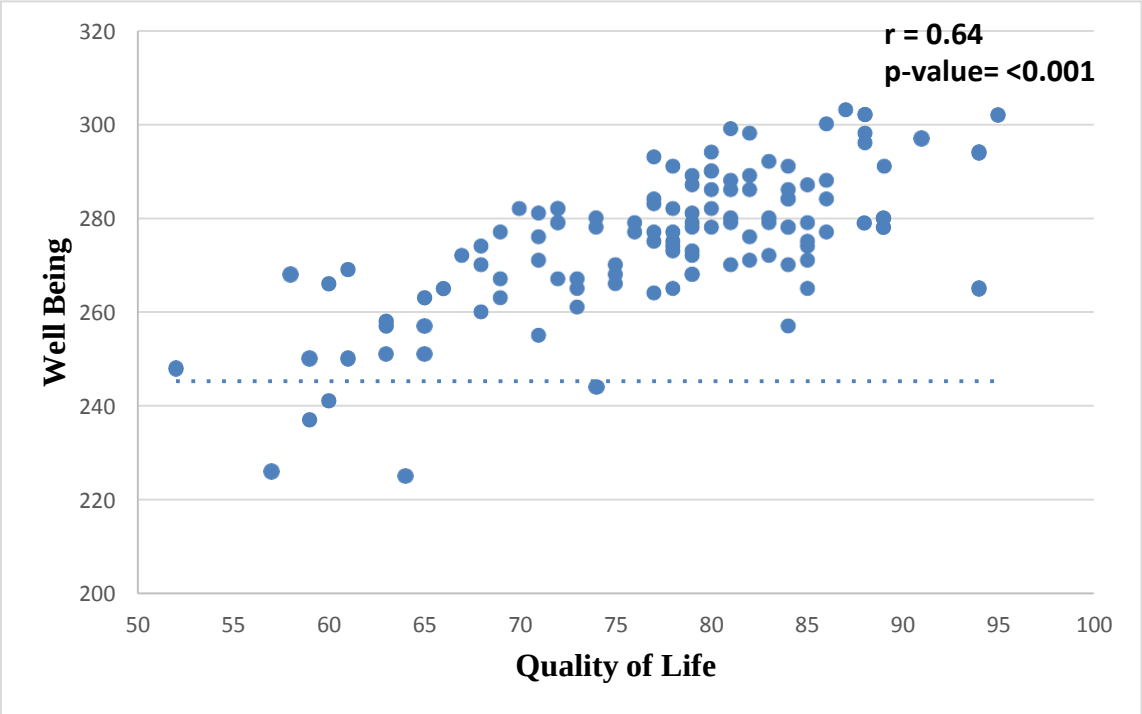

Figure 13: Scatter diagram showing correlation between scores of well-being and quality of life among senior citizens

Figure 13 illustrates the correlation between scores of well-being and quality of life of the senior citizens. The correlation was found using Spearman rank correlation cofficient test which showed moderate positive correlation between the scores (r=0.64) of well-being and quality of life.

Hence, the null hypothesis ($H0_3$) was rejected and the research hypothesis (H_3) was accepted. Therefore, it is interpreted that the well-being and quality of life of the senior citizens were positively correlated.

4.2.6 Association between well-being and socio-demographic variables of the senior citizens

$H0_4$: There would be no significant association between well-being and socio-demographic variables of the senior citizens, at $p<0.05$ level of significance.

H_4: There would be a significant association between well-being and socio-demographic variables of the senior citizens, at $p<0.05$ level of significance.

Table 31: Association of socio-demographic variables with level of well-being of the senior citizens **N=120**

Socio-demographic variables		Well-Being		χ^2/ Fisher's Exact* test	p value
Variables	**Categories**	**Below median**	**Above Median**		
Gender	**Male**	26	23	0.31	0.711
	Female	34	37		
Age in years	**60-64**	23	32	2.7	0.25
	65-69	14	10		
	70-75	23	18		
Educational Status	**Illiterate**	42	29	9.508*	0.05
	Literate	13	20		
	Primary	4	3		
	Secondary	1	7		
	Higher Secondary	0	1		
Types of Family	**Nuclear**	14	11	1.36	0.507
	Joint	43	43		
	Extended	3	6		
MaritalStatus	**Never married**	0	2	2.811*	0.422
	Married	39	42		
	Widow/widower	18	14		
	Divorced/separated	3	2		
Number of Children	**No child**	2	4	3.281	0.512
	1-2 children	10	12		
	3-4 children	20	22		
	5-6 children	14	13		
	More than 6children	14	7		
CurrentLiving Status	**Single**	5	4	0.812*	0.847
	Only with spouse	12	10		
	With family	41	45		
	With relatives	2	1		

Current Employment Status	**Service**	1	1	2.731	0.741
	Agriculture	24	28		
	Housework	32	27		
	Business	1	3		
	Retired	1	1		
	Others	1	0		

P significant at <0.05 level

Table 31 reveals the association between the well-being and socio-demographic variables of the senior citizens. No association of well-being with any of socio-demographic variables was found. The Pearson chi-square and fisher's exact test were used to find out the association.

Hence, the null hypothesis ($H0_4$) was accepted and the research hypothesis (H_4) was rejected. It is interpreted that socio-demographic variables of the senior citizens are not associated with their well-being.

4.2.7 Association between quality of life and socio-demographic variables of the senior citizens

$H0_5$: There would be no significant association between quality of life and socio-demographic variables of senior citizens, at $p<0.05$ level of significance.

H_5: There would be a significant association between quality of life and socio-demographic variables of senior citizens, at $p<0.05$ level of significance.

Table 32: Association of socio-demographic variables with quality of life of the senior citizens N=120

Socio-demographic variables		Quality of Life		χ^2/Fisher's Exact* test	p value
Variables	**Categories**	**Poor**	**Good**		
Gender	**Male**	21	28	0.995	0.319
	Female	37	34		
Age in years	**60-64**	24	31	0.978	0.613
	65-69	12	12		
	70-75	22	19		
Educational Status	**Illiterate**	39	32	6.841*	0.108
	Literate	14	19		
	Primary	4	3		
	Secondary	1	7		
	Higher Secondary	0	1		
Types of Family	**Nuclear**	14	11	1.389*	0.507
	Joint	41	45		
	Extended	3	6		
Marital Status	**Never married**	0	2	8.315*	**0.022**
	Married	34	47		
	Widow/widower	22	10		
	Divorced/separated	2	3		
Number of Children	**No child**	2	4	3.791*	0.443
	1-2 children	9	13		
	3-4 children	20	22		
	5-6 children	13	14		
	More than 6 children	14	7		
Current Living Status	**Single**	7	2	6.813*	0.059
	Only with spouse	14	8		
	With family	36	50		
	With relatives	1	2		

Current Employment Status	**Service**	0	2	4.444*	0.505
	Agriculture	22	30		
	Housework	32	27		
	Business	2	2		
	Retired	1	1		
	Others	1	0		

P significant at <0.05 level

Table 32 shows that there was significant association between marital status and quality of life of the senior citizens at 0.05 level of significance where married people had good QOL compared to people with other marital status. The Pearson chi-square and fisher's exact test were used to find out the association.

Hence, the null hypothesis ($H0_5$) was rejected and the research hypothesis (H_5) was accepted. It is interpreted that the marital status of the senior citizens are associated with their quality of life.

Summary

This chapter described both qualitative and quantitative analysis and interpretation of data. It has presented the comparative analysis and interpretation of socio-demographic characteristics, current health problems and health related behavior of the senior citizens and effectiveness of the comprehensive nursing interventions on overall and domain wise well-being and quality of life of the senior citizens in rural community by using descriptive and inferential statistics. The relationship between well-being and quality of life as well as with selected socio-demographic variables had also been specified. The qualitative data from FGD was also analyzed by theme generation as a qualitative analysis.