

Influence of Demographic Factors on Quality of Life and Coping Strategies in Patients with Non-Communicable Diseases

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Abstract: *Background of the study:* Non - communicable diseases are a global challenge towards diminishing quality of life. Health related quality of life is a widely accepted measure of burden of disease for individuals with chronic conditions. Many patients had inadequate coping strategies towards these conditions. *Aim:* To know Influence of selected demographic variable on health related quality of life and coping strategies in patients with Non communicable diseases. *Materials and methods:* Total 100 samples were selected by using non probability sampling methods. Quality of life scale and coping strategy scale were used to collect the data from the patients. Descriptive and inferential statistics were used to analyze the data. *Results:* The study results found that 28.33% had average quality of life, 1 % had poor QOL and 71.33% had Good QOL. 27.66% had average coping strategies and 72.34% had good coping strategies. 13.33% patients had under weight, nearly 25% had obesity and 25.66% are suffering with overweight. 13.33% males and 14% females are had very high waist circumference. 24.66% males and 15.33% females had high blood pressure. 23% males and 16% females are had high glucose level/ severe diabetes mellitus. *Conclusion:* There is a need for some intervention for improving physical health status and improvement of quality of life and enhancement of coping strategies for patients suffering with non communicable diseases.

Keywords: Quality of life, Non communicable disease, Coping strategies, Influence, Demographic variables

1. Introduction

Non - communicable diseases (NCDs) remain the leading cause of morbidity and mortality worldwide, responsible for 36 million deaths annually, with a rapidly rising prevalence due to population growth and ageing. ^{1, 2} Furthermore, chronically ill patients often suffer from multimorbidity, which can be defined as the co - occurrence of several chronic conditions within one person. Depending on the age class, multimorbidity occurs in 13%–72% of the general population worldwide. ³ NCDs are associated with a substantial burden of disease for the patients, their caregivers and the society as a whole. ^{4, 5} During the past decades, the interest into chronically ill patients' health - related quality of life (HRQoL) as a key health outcome indicator is growing due to the absence of an adequate cure for several NCDs, resulting in a shift from problem - oriented care to goal - oriented care. ² Many studies revealed a significant decrease in HRQoL in patients with NCD and indicated HRQoL as an important predictor of morbidity and mortality. ^{6, 7}

Previous studies have focused on the association between one specific NCD and HRQOL, such as hypertension⁸, type 2 diabetes⁹ and chronic kidney disease¹⁰. However, the results were not consistent, since most of these studies were cross - sectional studies. A lot of studies showed a negative effect of one specific NCD on HRQOL, while others did not find a correlation^{8, 9, 10, 11}. Additionally, most studies have ignored the influence of the number of NCDs, while older adults usually have more than one NCD, referred to as multimorbidity¹². Some international researchers

investigated the HRQOL of people suffering from multiple NCDs in their countries and found a negative relationship between HRQOL and multimorbidity^{13, 14}.

It was also realized in the current study that patients also adopt task - oriented strategies including visiting friends, exercising, going out to roam in town, going to stay at the roadside, church meetings, and playing games and football with friends as a coping strategy to limit the impact of the emotional stress that is associated with leaving with chronic non - communicable diseases¹⁵.

2. Materials and Methods

Objectives:

- 1) To assess the health status of patients with non communicable diseases
- 2) To assess the level of quality of life and coping strategies of patients with non communicable diseases
- 3) To know Influence of selected demographic variable on health related quality of life and coping strategies in patients with Non communicable diseases

Hypothesis: The following hypothesis will be tested at 0.05 level of significance

- **H₁:** There is a significant influence of selected demographic variables on quality of life.
- **H₂:** There is a significant influence of selected demographic variables on coping strategies.

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Inclusion criteria:

- The patients are suffering with non communicable disease
- The patients who are willing to participate in the study
- Both the genders are included in the study

Exclusion criteria:

- The patients who are suffering with severe illness due to non communicable disease

Sample size: total 300 samples are selected for the study

Sampling Technique: Purposive sampling technique is used for the study

Variables:

Research variables: Health related quality of life and coping strategies of patients suffering with non communicable diseases

Setting of the study: The present study was done at selected hospital at Bagalakot

Tools used for data collection:

- WHOQOL is used to assess the quality of life among patients suffering with non communicable disease
- Five point likert scale was used to assess the Coping strategies among patients suffering with non communicable disease

3. Results and Discussions

1) Demographic data of patients with non-communicable disease

Table 1

S No	Demographic data	Frequency	%
1	AGE		
	20 - 30	14	4.6
	31 - 40	33	11
	41 - 50	47	15.6
	51 - 60	86	28.6
	61 - 70	63	21
	71 - 80	50	16.6
81 - 90	07	2.3	
2	GENDER		
	MALE	164	54.6
	FEMALE	136	45.3
3	Education		
	Illiterate	97	32.3
	School education (1 - 10 std)	136	45.3
	PUC	33	11
4	Occupation		
	Self Employees	136	45.3
	Govt Employee	47	15.6
	Private Employee	29	9.6
	Collie	66	22
5	Income		
	<10, 000	109	36.3
	10, 000 - 20, 000	98	32.6
	20, 000 - 30, 000	66	22
>30, 000	27	9	
6	Marital Status		
	Married	289	94.3
	Unmarried	11	3.6

7	Type of Family		
	Nuclear	233	77.6
	Joint	67	22.3
8	Use of Tobacco substance		
	Yes	69	23
	No	231	77
9	Family History		
	Diabetes Mellitus		
	Yes	96	32
	No	204	68
	Hypertension		
	Yes	112	37.33
No	188	62.66	
10	Alcohol		
	Yes	29	9.6
	No	271	90.3

Table no 1: Shows that majority of the patients (28.6%) are belongs to the age group of 51 - 6 years.54.6% patients are belongs to male gender.45.3% patients had school education.45.3% patients are self employees.36.3% patients had less than 10000 rupees monthly income.94.3% were married.77.6% patients are belongs to nuclear family.77% patients are not using tobacco as their habit.68% patients are not having the family history of diabetes mellitus and 62.66% are not having the family history of hypertension.90.3% patients are not having the habit of drinking alcohol.

2) How often do you eat the following?

Table 2

	Never	Once in Month	Several time in Month	Once in week	Everyday	Total
Sweets	95	44	45	92	24	300
Vegetables	2	8	10	21	259	300
Fruits	2	12	38	126	122	300
Fast Foods	147	33	50	55	15	300
Dairy	19	25	45	51	160	300
Meat	164	46	23	61	6	300

Table no 2: Represents that 164 of the samples not taking the meat, 46 participants are taking meat once in month, 50 participants are consuming fast foods several time in month, 126 participants consumes fruits once in week, 259 participants consumes vegetables every day.

3) Weight status

Table 3

S No	BMI	Score	F	%
1	Under weight	<18.5	40	13.33
2	Normal	18.5 - 24.9	109	36.33
3	Over weight	25 - 29.9	77	25.66
4	Obese 1	30 - 34.9	40	13.33
5	Obese 2	35 - 39.9	22	7.33
6	Obese 3	>40	12	4
		Total	300	100

Table No 3: Represents that 36.33% samples had normal BMI, 25.66% samples had overweight, 13.33% samples belongs to underweight and obese 1 categories respectively, 7.33% samples belongs to obese 2 categories and 4% samples are belongs to obese 3 categories.

4) Waist circumference

Table 4

S No	Waist circumference	Normal (<94.9 cm)		High (95 - 102 cm)		Very high (>102 cm)	
		F	%	F	%	F	%
		1	Male	62	20.66	49	16.33
2	Female	55	18.33	52	17.33	42	14

Table No 4: Shows that 13.33% male samples are having very high waist circumference, 16.33% male samples had high waist circumference and 20.66% male samples are having normal waist circumference. Where as 14% of female samples are having very high waist circumference, 17.33% of female samples are having high waist circumference and 18.33% samples are having normal waist circumference.

5) Blood Pressure level

Table 5

S No	Blood pressure	Mild		Moderate		High	
		F	%	F	%	F	%
		1	Male	33	11	55	18.33
2	Female	28	9.33	64	21.33	46	15.33

Table No 5: Represents that 11% of male and 9.33 % of females are having mild blood pressure respectively.18.33% male and 21.33% female are having moderate blood pressure.24.66% male and 15.33% female are having high blood pressure

6) Diabetic level

Table 6

S No	Diabetes	Mild		Moderate		Severe	
		F	%	F	%	F	%
		1	Male	61	20.33	42	14
2	Female	31	10.33	49	16.33	48	16

Table No 6: Shows that 23% of male and 16% of female samples are having severe diabetes, 14% of male and 16.33% of female samples are having moderate diabetes and 20.33% of male and 10.33% of female samples are having mild diabetes.

7) Quality of life Scoring

Table 7

S No.	Category	Scoring	Frequency	Percentage %
01	Low Quality of life	26 - 44	01	0.3%
02	Average Quality of life	45 - 89	85	28.33%
03	Good quality of life	90 - 130	214	71.33%
		Total	300	100

Table no 7: Shows that 0.3% of participants had low quality of life, 28.33% of the participants are had average quality of life and 71.33% participants are had good quality of life.

8) Coping strategy Scoring

Table 8

SL No.	Category	Scoring	Frequency	Percentage %
01	Low Coping	38 - 64	0	0
02	Average Coping	65 - 90	83	27.66%
03	Good Coping	91 - 114	217	72.33%
		Total	300	100

Table no 8: Represents that 83 participants were having average coping and 217 samples had good coping strategies

9) Influence of selected demographic variables on Quality of life.

Table 9

Demographic Variables	Mean	SD
Age		
<45	73.52	15.1
>45	72.42	12.42
Gender		
Male	72.62	11.48
Female	71.09	12.72
Education		
Literacy	77.78	10.58
Illiteracy	69.01	12.7
Occupation		
Govt Employee	76.06	12.6
Private Employee	72.47	13.60
Income		
<20, 000	70.57	13.18
>20, 000	78.32	12.75
Status		
Married	72.79	12.75
Unmarried	75.77	15.52
Type of family		
Nuclear	71.84	12.55
Joint	76.38	14.14
Use of Tobacco		
No	72.96	13.31
Yes	71.70	11.31

Table No 9: Shows that less than 45 years of age group samples had good quality of life (73.52±15.1) than samples had age more than 45 years (72.42± 12.42). Males (72.62 ± 11.48) are having good quality of life than females (71.09 ± 12.72). Literate patients (77.78 ±10.58) had good quality of life than illiterate patients (69.01 ± 12.7). Government employees (76.06± 12.6) had a good quality of life than private employee (72.47± 13.60). The samples had good quality of life having income more than 20000 (78.32± 13.18) than samples had income less than 20000 (70.57± 13.18). Unmarried people (75.77± 15.52) are having good quality of life than married people (72.79± 12.75). The sample belongs to joint family (76.38± 14.14) are having good quality of life than the samples belongs to nuclear family (71.84± 12.55). The samples those who are not using tobacco (72.96± 13.31) had good quality of life than the samples those who are using tobacco (71.70 ± 11.31)

10) Influence of Selected Demographic variables on coping Strategies

Table 10

Demographic variables	Mean	SD
Age		
<45	78.35	5.80
>45	81.38	6.14
Gender		
Male	80.8	6.31
Female	80.7	6.48
Education		
Literacy	80.7	6.48
Illiteracy	80.4	7.78
Occupation		
Govt Employee	79.9	6.87
Private Employee	81	6.35
Income		
<20,000	81.47	6.34
>20,000	81.3	6.28
Marital Status		
Married	81.04	6.49
Unmarried	81.5	13.41
Type of family		
Nuclear	80.90	6.63
Joint	80.98	5.61
Use of Tobacco		
No	80.47	6.19
Yes	81.30	8.45

Table no 10: Represents that More than 45 years of age group patients had good coping (81.38± 6.14) strategies than the patients had age less than 45 years (78.35± 5.80). Male patients (80.8±6.31) and female patients (80.7± 6.48) had no much difference in coping strategies. There is also no much difference in literacy (80.7±6.48) and illiteracy patients (80.4± 7.78) regarding coping strategies. Private employee patients (81±6.35) had good coping strategies than govt employee patients (79.9±6.87). There is no much difference in the coping strategies between patients who are having income <20000 (81.47±6.34) and income >20000 rupees (81.3±6.28). There is no much difference regarding coping strategies between married (81.04±6.49) and unmarried patients (81.5±13.41). There is no much difference found regarding coping strategies among patients belongs to nuclear family (80.90±6.63) and joint family (80.98±5.61). Those patients using tobacco had good coping strategies (81.30±8.45) than the patients who are not using the tobacco (80.47±6.19)

4. Discussion

The present study found that). Literate patients (77.78 ±10.58) had good quality of life than illiterate patients (69.01 ± 12.7). The similar study shows that Patients with good health literacy had better social ($\beta = 0.51, p = .001$) and role ($\beta = 0.10, p = .011$) functioning regarding quality of life¹⁶. The study shows that Shows that less than 45 years of age group samples had good quality of life (73.52±15.1) than samples had age more than 45 years (72.42± 12.42). A similar study shows that older patients had better HRQL than younger patients (mean KCCQ score 60±25 versus 54±28, $P = .005$) in spite of worse NYHA class (mean 2.54 versus 2.35, $P < .001$) and lower 6 - minute walk distances (824±378 versus 1064±371 feet, $P < .001$)¹⁷.

5. Conclusion

The age group, gender, education, income and use of tobacco are influencing more on quality of life and coping strategies among patients suffering with non-communicable diseases. The same study can be conducted with a greater number of demographic variables and more number of samples in different setting for generalization of the findings.

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