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QUALITY OF LIFE AMONG PEOPLE OF KNOWN NON-COMMUNICABLE DISEASES IN A RURAL NORTH KARNATAKA.

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Abstract

Introduction: Non communicable diseases (NCDs), such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the leading global cause of death and are responsible for 70% of deaths worldwide.Reliable data on NCD morbidity and Health related quality of Life (Hr-QOL) are unavailable **Objectives:** To assess Quality of Life among Previously diagnosed Non-communicable disease patients in a sub centre of Rural Health & Training Centre of Gadag Institute of Medical Sciences Gadag **Methodology**: A Community based Survey was done in persons already diagnosed Non-communicable diseases and the effect of these NCDs on quality of Life of the individuals. Information regarding socio-demographic profile & quality of life was collected using Standardized WHO-QOL Questionnaire. Data was analyzed using statistical methods with the help of SPSS software. **Results:** In our survey 398 persons having one or more Non Communicable Diseases. Maximum Number of study subjects (50.75%) was in the age group of 40- 59 years. 76.88% were married, 63. 32% were unskilled workers. Among Known NCD persons 32% had Hypertension followed by Diabetes (24%), Arthritis (24%),Asthma (6%) and other diseases like Congestive cardiac failure, Stroke, Blindness contributed 2% each for NCD's. Overall Mean of Quality of life Domain score was 51. 17% ±11. 53. For physical, psychological, Environmental & social Domain mean percentage score were 47.72 ±9.97, 49.93 ±10.88, and 56. 90±13.12 & 49. 97 ±10.9 respectively. **Conclusion:** Overall mean domain percentage score for Environmental domain was greater compared to other domains like Social, Psychological and Physical domains signifying good environmental supports like satisfactory transportation, healthy physical environment, enough money to meet daily requirements, availability of information, ample opportunities for leisure activities, satisfactory living place.

Key-words: Quality of Life, Non-Communicable Diseases, rural area

Introduction

Non-Communicable Disease (NCD), is defined by EURO symposium as "An impairment of bodily structure and/or function that necessitates a modification of the patient's normal life, and has persisted over an extended period of time".[1] NCDs such as cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the leading global cause of death and are responsible for 70% of deaths worldwide.[2] An estimated 36 million deaths, or 63% of the 57 million deaths that occurred globally in 2008, were due to Non-communicable diseases, comprising mainly cardiovascular diseases (48%), cancers (21%), chronic respiratory diseases (12%) and diabetes(3.5%).[3]The global burden and threat of non-communicable diseases constitutes a major public health challenge that undermines social and economic development throughout the world, and intern has the effect of increasing inequalities between countries and within populations.[4]NCDs contribute to over 60% of the mortality in India that is Cardiovascular Diseases 26%, chronic respiratory diseases 13%, Injuries 12%, Cancers 7%, Diabetes 2%, and Other NCDs 12%.[5]

WHO defines[6] Quality of Life as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a broad ranging concept affected in a complex way by the person's physical health, psychological state, level of independence, social relationships, personal beliefs and their relationship to salient features of their environment.

Information about NCD- related morbidity data are important for the management of health- care system and for planning and evaluation of health service delivery. However, comprehensive data on all NCD morbidity and Health related quality of Life (Hr-QOL) is scares . Hence this study is undertaken to find out the Hr-QOL in NCDs Which will help to render required services.

The objective was to assess Quality of Life among Previously diagnosed Non-communicable disease patients in a sub centre of Rural Health and Training Centre of Gadag Institute of Medical Sciences Gadag.

Material and Methods

A Community based Cross-sectional study was conducted after obtaining ethical clearance from institutional ethical committee. Survey was done from January to March 2017 in a sub centre of Rural Health & Training Centre of Gadag Institute of Medical Sciences Gadag to find out already diagnosed Non-communicable diseases and the effect of these NCDs on quality of Life of the individuals.

Rural health and training centre of Gadag Institute Medical Sciences has four sub-centers, of which one sub-centre Binkadakatti having population of 3473 was randomly selected for the study. All the (403) persons having one or the other Non-Communicable disease is enrolled in the study; out of which only 398 persons consented for the study were included in the study and those who did not consent were excluded.

House to house survey was done by trained personnel to collect information regarding socio-demographic profile & quality of life of study participants was collected using Standardized BRIF-WHO-QOL Questionnaire[6] consisting of 26 questions covering quality of life assessment for Physical, Psychological, Environmental and Social domains.

Mean domain percentage score was orbirararily considered to be poor for <40, fair for 40-60, good for >60. Data was collected and entered into Microsoft Excel and analyzed using statistical methods like mean, standard deviation, percentage with the help of SPSS software.

Results

In our survey there were 398 persons having one or more Non Communicable Diseases, out of which 202 were males 196 were females. Maximum Number of study subjects (50.75%) was in the age group of 40- 59 years. 76.88% were married, 36.68% were illiterate, 27.89% were educated till primary education, 63. 32% were unskilled workers, 22. 36% were unemployed.

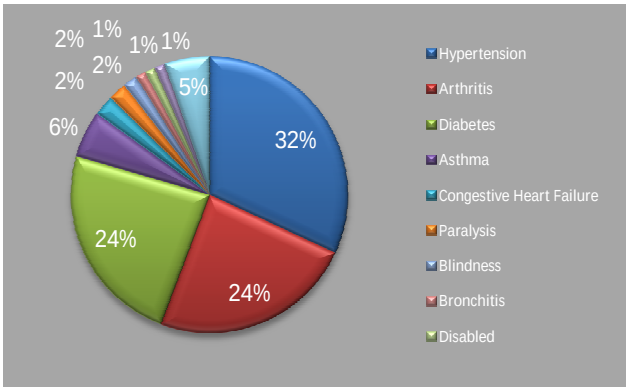
Among the persons already diagnosed having Non communicable Diseases 32% had Hypertension, followed by diabetes & arthritis (24% each),Asthma(6%) , Congestive cardiac failure, paralysis due to stroke, blindness.(2% each)

Overall Mean of Quality of life Domain score was 51. 17% ±11. 53. For physical, psychological, Environmental & social Domain mean percentage score was 47.72 ±9.97, 49.93 ±10.88, and 56. 90±13.12 & 49. 97 ±10.9 respectively. Overall mean domain percentage score for Environmental domain was higher than social domain score follower by psychological & physical domain percentage score.

Table-1: Distribution of study subjects with Non-Communicable Diseases according to their Socio-demographic Profile

Particulars	Male	Female	Total
Age in Years			
20-29	8	12	20
30-39	25	30	55
40-49	63	50	113
50-59	49	40	89
60-69	29	40	69
70-79	22	15	37
>=80	6	9	15
Marital status			
Married	170	136	306
Unmarried	15	11	26
Widow/widower	17	49	66
Educational status :			
Illiterate	57	89	146
Primary	50	61	111
Secondary	43	29	72
PUC	15	9	24
Degree	34	8	42
Master degree	3	0	3
Occupation:			
Unemployed/Retired	56	33	89
Unskilled	100	152	252
Semiskilled	11	2	13
Skilled	10	4	14
Clerical/Business	6	1	7
Semi-professional	0	1	1
Professional	19	3	22
Total	202	196	398

Figure1 :Distribution of Diagnosed Non-Communicable Diseases in survey area.



Discussion

In our survey, among the persons already diagnosed having Non communicable Diseases 32% had Hypertension, followed by diabetes & arthritis (24% each),Asthma(6%) , Congestive cardiac failure, paralysis due to stroke, blindness.(2% each).

Table -2: Distribution of various domain scores for quality of life of persons with Non-communicable diseases

Particulars		Physical Domain percentage Score		Psychological Domain percentage Score		Environmental Domain percentage Score		Social Domain percentage Score		Total Number of Persons
		< 50	≥50	< 50	≥ 50	< 50	≥ 50	< 50	≥ 50	
Number of Persons With Non- Communicable Diseases	**Hypertension**	57	53	47	63	17	93	49	61	**110**
	Arthritis	52	47	46	53	17	82	34	65	**99**
	Diabetes	38	44	35	47	14	68	25	57	**82**
	Asthma	14	7	7	14	8	13	10	11	**21**
	Diabetes & Hypertension	12	6	9	9	4	14	7	11	**18**
	Congestive Heart Failure	7	3	7	3	2	8	5	5	**10**
	Paralysis	4	5	3	6	0	9	6	3	**9**
	Blindness	4	3	5	2	2	5	3	4	**7**
	Bronchitis	5	0	4	1	1	4	4	1	**5**
	Accident	3	1	3	1	0	4	1	3	**4**
	Cancer	3	1	2	2	1	3	3	1	**4**
	COPD	4	0	2	2	1	3	2	2	**4**
	Deaf	3	0	3	0	0	3	2	1	**3**
	Disabled	4	1	3	2	2	3	2	3	**5**
	Dumb	1	1	0	2	0	2	2	0	**2**
	Psychiatric Illness	1	1	1	1	0	2	1	1	**2**
	Renal Failure	2	1	0	3	1	2	1	2	**3**
	Epilepsy	1	0	0	1	1	0	1	0	**1**
	Hypothyroidism	0	1	1	0	0	1	0	1	**1**
	Migraine	0	1	1	0	0	1	0	1	**1**
	Skin Disease	0	1	0	1	0	1	1	0	**1**
	Diabetes, Hypertension &Asthma	1	0	0	1	0	1	0	1	**1**
	Hypertension & Arthritis	1	1	1	1	0	2	0	2	**2**
	Hypertension & Asthma	0	2	0	2	0	2	0	2	**2**
	Hypertension & Epilepsy	0	1	0	1	0	1	0	1	**1**
		217	**181**	**180**	**218**	**71**	**327**	**159**	**239**	**398**
Mean domain scores		**47.72, SD =+/- 9.97**		**49.93, SD=+/- 10.88**		**56.90, SD=+/-13.12**		**49.97, SD=+/-10.09**		**51.17, SD=+/- 11.53**

Similarly in a study done in Manipal in 2015 by Anju Rose, majority (52.5%) had hypertension followed by diabetes (18%).[7] In a study done in Udupi [8] in 2012, by Asadullah Md et.al in Old age inmates , hypertension (47. 8%) & Diabetes (43. 5%) were most common morbidities. In a study done in Malaysia[9] in 2012 by Sazlina, S.G, 41.8% and 33.7% of the participants had hypertension and type 2 diabetes, respectively; Other NCDs included asthma (4.8%), hyperlipidaemia (1.7%), coronary heart disease (1.2%), and osteoarthritis (0.2%).

Overall Mean of Quality of life Domain score was 51. 17% ±11. 53. For physical, psychological, Environmental & social Domain mean percentage score was 47.72 ±9.97, 49.93 ±10.88, and 56. 90±13.12 & 49. 97 ±10.9 respectively. Overall mean domain percentage score for Environmental domain was higher than social domain score follower by psychological & physical domain percentage score.

In a study done in old age home in Udapi [8] by Md Asadullah**,** the mean score of physical, psychological,

environmental & social domains were 53.71±15.64, 58.16±13.57, 34.66±14.87 and 60.46±10.14 respectively. The poor social domain scores may be because of the miserable social relationship of inmates of old age homes with family, friends and community.
In a study by Sazlina, S.G [9] Increasing age, presence of comorbid conditions were predictors of poor physical quality of life; older women, poor social support were predictors of poor mental quality of life.

In a study done in Belgaum [10] by Raghavendra N, to assess the quality of life of type 2 diabetes mellitus patients, 48.6% had good QOL. Diabetes had significantly affected Hr-QOL particularly the social relationship domain. Participants with older age, obesity, longer duration of DM had poor QOL.

In a study conducted Mandya [11] by MP Sheethal to Asses the quality of life among anganwadi workers overall quality of life percentage score was 61. AWWs had higher scores among the social (69) and physical (63) domains compared with the psychological (56) and environmental (56s) domains People with diabetes mellitus have good quality of life when compared to other diseases such as hypertension, asthma and both diabetes mellitus& hypertension.

Conclusion: Overall mean domain percentage score for Environmental domain was greater compared to other domains like Social, Psychological and Physical domains signifying good environmental supports like satisfactory transportation, healthy physical environment, enough money to meet daily requirements, availability of information, ample opportunities for leisure activities, satisfactory living place.

Recommendation: Despite presence of NCD clinic, awareness and its utilization is poor. Awareness needs to be created on self care in the general population and need to be motivated to utilize services.
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