PUBLICATIONS WITH MOU - LINCOLN UNIVERSITY

Health Related Quality of Life (HRQoL) as Impinge of Functional Mobility Among Elderly Living in Rural and Urban Areas, Nellore, AP -Comparative Study

7 authors, including:

Amiya Bhaumik
Lincoln University , Malaysia
217 PUBLICATIONS   1,284 CITATIONS

SEE PROFILE

Smitha Poovathinkal Madhavan
Narayana College of Nursing, Nellore
19 PUBLICATIONS   6 CITATIONS

SEE PROFILE

Sandeep Poddar
Lincoln University College, Malaysia
205 PUBLICATIONS   589 CITATIONS

SEE PROFILE

Dr. B. ...
Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

ORIGINAL ARTICLE

Health Related Quality of Life (HRQoL) as Impinge of Functional Mobility Among Elderly Living in Rural and Urban Areas, Nellore, AP - Comparative Study

Viji Alex[1], Indira Armugham[1,2], Amiya Bhaumik[1], V. Jayanthi[1,2], Smitha Poovathinkal Madhavan[1,2], Aruna Gundluru[1], Sandeep Poddar[1]

[1] Lincoln University College, Wisma Lincoln, No. 12-18, Jalan SS 6/12, 47301, Petaling Jaya, Selangor Darul Ehsan, Malaysia
[2] Narayana College of Nursing, Chinthareddypalem, Nellore, Andhra Pradesh 524002, India

ABSTRACT

Introduction: Physical restrictions, psychological problems, and socio-economic changes such as economic dependency, widowhood, and social marginalisation have all increased because of the large growth in ageing. Age related anatomical, physiological and psychological impairment have an impact on quality of life of elderly related to Health-Related Quality of Life (HRQoL). These factors have become an important part of public health surveillance and are viewed as valid indicators to measure the quality of life of humans. **Methods:** The study was conducted in urban and rural areas of Nellore district, Andhra Pradesh state, India. The 50 elderlies from rural areas of Kamakshinagar and 50 elderlies from urban area of Balaji Nagar were selected. Nellore district was chosen to obtain study participants by non-probability convenient sampling technique. Elderly between the age group of 60-75 years of age were included and those who were mentally and physically sick at the time of data collection were excluded. Health Related Quality of Life (HRQoL) four-point rating scale was used to obtain data to determine the quality of life among elderly. **Results:** In this study, the mean score of the urban elderly were higher than the rural participants with respect to physical, psychological, social, leisure time, coping, and spiritual elements. However, both rural and urban elderly had maximum mean score in physical status and lowest score in surviving style. **Conclusion:** The urban elderly has better, and good quality of life relate to functional ability, mobility, free of physiological discomforts, psychological wellbeing, decision power, family support, involving leisure and recreational activities, spirituality, coping with friends and family compared to elderly living in rural area.

Keywords: Quality of Life, Elderly, Impinge of functional mobility

Corresponding Author:
Viji Alex, Master in Nursing
Email: chennai_viji@rediff.com
Tel: +91 9444004793

INTRODUCTION

Aging is demographic transition process of adults to old age and associated with dynamic changes in physical, biological, physiological, ecological, psychological, behavioural, and social processes. The common age-related changes are greying of the hair, thin and wrinkle skin, age spots and skin tags. Other major changes lead to impaired sensory functions and restricted activities of daily living as well as increased susceptibility and frequency of illness, weakness, or disability. In fact, Elderly is a major risk factor for many lifestyle diseases in humans (1). The population of 60 years and above is projected to increase to 19% (2050) from 8% (2015). The increase in the population of the elderly (80 and above) is also high in India (2).

Physical restrictions, psychological problems, and socio-economic changes such as economic dependency, widowhood, and social marginalisation have all increased because of the large ageing population (3). Some old individuals in India are left alone in their families owing to a shortage of financial and social help. Increased physical limits, changes in family structure, and a shortage of financial stability have all been highlighted as contributing causes to aged insecurity and poor quality of life (2, 4).

Elderly with impaired physical performance and low functional status were linked to poor life satisfaction and poor quality of life, however the link was weak (5). Quality of life (QOL) is defined by the World Health Organization (WHO, 2012) as an individual's perception of their position in life in relation to their objectives, expectations, standards, and concerns in the context of the culture and value system in which they live (6). The level of happiness experienced by an individual or a group of individuals is described to as quality of life. As

this is an intangible object, it cannot be measured directly. The components are physical state, psychological status, social support, leisure time, spirituality, and coping style. Physical factors include health, food, pain and disease prevention. Stress, worry, pleasure, and other good or negative emotional states are among the psychological components (7). HRQOL is described by the CDC as "a person's or a group's perception of physical and mental health across time" (5).

Since the 1980s, the idea of health-related quality of life (HRQOL) and its elements have expanded to include all components of overall quality of life that have been proved to have an impact on health—physical or mental (8). At the individual level, HRQL includes perceptions of physical and mental health (e.g., energy levels, mood) as well as its correlates, such as health risks and conditions, functional status, social support, and socioeconomic status (8). HRQL refers to the resources, situations, rules, and behaviours that influence a population's perception of health and functional status at the community level (8).

HRQL questions have become a standard component of public health surveillance, and they're often considered as accurate indicators of unmet needs and intervention outcomes. Many objective health markers are less accurate predictors of death and morbidity than self-reported health status. HRQoL metrics can be used to demonstrate the influence of health on quality of life in a scientific way (8).

Due to the significant increase in ageing population in both developed and developing countries, quality of life is at danger for every individual. In the twenty-first century, the task is to delay the development of infirmities and provide an optimal quality of life for the elderly. The World Health Organization has issued a warning to member countries that the rising incidence of chronic diseases and fall in well-being, as people live longer around the world, this will pose a serious global public health concern (9). At the present era, QoL among elderly have become the main concern for well being of geriatrics in the aspects of nutritional status (10).

This article attempts to highlight some of the issues that an ageing population might bring. The elderly was given special attention, and issues that would impair their quality of life were highlighted. The study objectives are to evaluate health-related quality of life among the elderly in rural settings, compare health-related quality of life among the elderly in urban settings, and link health-related quality of life among the elderly in rural and urban settings to demographic factors.

MATERIALS AND METHODS

Setting and sample
A broad review and community-based comparative study was performed involving HRQoL as aging causes the deprivation of systemic and functional mobility. The study was performed in rural and urban parts of Nellore district, Andhra Pradesh state, India. The rural section of the study was conducted in Kamakshinagar, a small village in Thotapalligudur Mandal in Nellore district, A.P. The total population is 1295 among them male 661 and females 634 living in 365 Houses. Total area of Kamakshi Nagar is 299 hectares. Balaji Nagar consisted of 22477individuals in the Nellore district of Andhra Pradesh state. There are 11423 males and 11054 females in the population (11). The 50 elderlies from Kamakshinagar and 50 elderlies from Balaji Nagar Nellore district were selected as study participants by nonprobability convenient sampling technique; elderly between the age group of 60-75 years of age were included and those who were mentally and physically sick at the time of data collection were excluded.

Ethical clearance
The study procedure was accepted by the Narayana College of Nursing's Institutional Ethics Committee in Nellore, Andhra Pradesh, India (see memo no. 05/PhD(N) /LU/2019 dated as 06th June 2018).

Data collection
Informed consent was obtained from elderly prior to data collection. Base line data such as Age, Religion, Occupation, Marital Status, Education, Gender, Income, Residential Status, Number of children and social support were collected. Health Related Quality of Life (HRQoL) four point Rating scale was used to collect data consisting of 6 component: Physical status, Psychological status, Social support, Leisure time, Spiritual and Coping style includes 25 positive and 25 negative statements, 14 statement covers the physiological functioning and physical mobility, 10 statements covers psychological wellbeing, worries and self esteem, 9 statements covers social support from family members, friends and social gathering, 7 statements covers leisure time activities and necessary economical support for the same, 5 statements covers faith in religion, habit of reading religious books, visiting temples and 5 statement covers coping style. The HRQoL instrument is 4 response categories: never, occasionally, frequently, and always. The score of positive statement ranged from 1-4 (never, occasionally, frequently, and always) and score of negative statement ranged from 4-1(always, frequently, occasionally, never). The result of all 7 components were summed up again producing the HRQoL, which reflects the standard of quality of life in general. The total score ranges from 1 to 200, in this study HRQoL value below 50 was considered as "Very Poor quality of life", 51 – 100 as "Poor quality of life", 101- 150 as "Fair quality of life", and 151- 200 as "Good quality of life".

Data analysis
SPSS v18 was used to analy... d... ...

into an MS Excel sheet. Physical state, psychological status, social support, leisure time, spirituality, and coping style were all used to determine QOL. The average and standard deviation of the scores have been calculated (SD). The significance of the median score was tested using an independent t test. P value of P=0.001 has been considered for statistical significance. The mean and standard deviation scores in each domain were also calculated.

RESULTS

Considering demographic data of elderly, 23 (46%) elderly in urban area were in the age group of 64-69 years and in rural areas 21 (42%) and between age group of 64-69 years. 38(76%) of elderly in urban areas. They were getting support from family members, 44(88%) of elderly were getting support from their friends in rural areas.

Table I depicts the frequency and percentage distribution of health-related quality of life among elderly in rural region. Considering the physical status, 3 (6%) of elderly had poor and 28 (56%) of elderly had good health related quality of life. Views of the psychological status 4(8%) of elderly had poor and 11 (22%) of elderly had good health related quality of life. With respect of communal support, 12 (24%) of elderly had poor and 9 (18%) of elderly had good health related quality of life. Considering the leisure time, 5(10%) of elderly had poor and 9 (18%) of elderly had good health related quality of life. Considering the coping style, 7(14%) of elderly had poor and 5 (10%) of elderly had good health quality of life.

Table II depicts the frequency and percentage distribution of health-related quality of life among elderly in urban region. With respect to physical status, 5 (10%) of elderly had fair and 45(90%) of elderly had good health related quality of life. Regarding the psychological status 4(8%) of elderly had fair and 46 (92%) of elderly good health related quality of life. With respect of social support, 6 (12%) of elderly had poor and 4(8%) of elderly had good quality of life. With regards to leisure time 7 (14%) of elderly had poor and 18 (36%) of elderly had good health related quality of life. In view of the coping style

Table I: Frequency and percentage distribution of health related quality of life among elderly in rural area (n=50)

Quality of life	Very Poor		Poor		Fair		Good	
	n	%	n	%	n	%	n	%
Physical status	-	-	3	6.0%	19	38.0%	28	56.0%
Psychological status	-	-	4	8.0%	35	70.0%	11	22.0%
Social support	-	-	12	24.0%	29	58.0%	9	18.0%
Leisure time	-	-	5	10.0%	36	72.0%	9	18.0%
Spiritual	-	-	11	22.0%	27	54.0%	12	24.0%
Coping style	-	-	7	14.0%	38	76.0%	5	10.0%

Table II: Frequency and percentage distribution of health related quality of life among elderly in urban area (n=50)

Health Related Quality of Life	Very Poor		Poor		Fair		Good	
	No	%	n	%	n	%	n	%
Physical status	0	0%	0	0%	5	10.0%	45	90.0%
Psychological status	0	0%	0	0%	4	8.0%	46	92.0%
Social support	0	0%	6	12.0%	40	80.0%	4	8.0%
Leisure time	0	0%	7	14.0%	25	50.0%	18	36.0%
Spiritual	0	0%	1	2.0%	14	28.0%	35	70.0%
Coping style	0	0%	0	0%	11	22.0%	39	78.0%

7 (14%) of elderly had poor and 5 (10%) of elderly had good health related quality of life.

Table III depicts the difference of mean health related quality of life of elderly in rural and urban area. The study results discovered that the mean physical status of rural area was 41.64 with SD of 7.95 and an urban area mean score was 48.96 with SD of 3.89. However, the physical status of both rural area and urban area was discovered to be statistically important at P<0.001 level. Student Independent 't' test projected that t value is 5.85 statistically significant.

Table III: Comparison of mean health related quality of life of elderly in rural and urban area (N=50+50)

Health related Quality of life	Group				Student Independent t-test
	Rural		Urban		
	Mean	SD	Mean	SD	
Physical status	41.64	7.95	48.96	3.89	t=5.85 P=0.001 S
Psychological status	27.48	5.21	35.06	1.98	t=9.61 P=0.001 S
Social support	21.72	5.17	23.06	3.35	t=1.53 NS
Leisure time activities	18.26	3.94	19.62	4.70	t=1.56 NS
Spiritual	13.10	3.29	16.78	2.79	t=6.03 P=0.001 S
Coping style	12.50	2.51	16.66	1.80	t=9.52 P=0.001 S
Overall Quality of life score	134.70	17.33	160.14	12.03	t=8.53 P=0.001 S

S= Significant : NS= Not significant

The mean psychological status of rural area was 27.48 with SD of 5.21 and in urban area mean score was 35.06 with SD of 1.98. However, the psychological status of both rural and urban area was discovered to be statistically significant at p<0.001. Student Independent 't' test projected that t value is 9.61 statistically significant.

Family support in the rural area showed a score of 21.72 with SD of 5.17 and family settings mean score of 23.06

with SD of 3.35. However, the social support of both rural area and urban area was not statistically significant. Student Independent 't' test projected a value of 1.53 which was not statistically significant.

Considering the mean leisure time activities in the rural area were 18.26 with SD of 3.94 and in the urban area mean score was 19.62 with SD of 4.70. However, the leisure time activities of both rural area and urban area were found not to be statistically significant. Student Independent 't' test projected a value of 1.56 which was not statistically significant.

With respect to the mean spirituality of rural area the score was 13.10 with SD value of 3.29 and an urban area mean score of 16.78 with SD of 2.79. However, the spiritual status of both rural area and urban area was found to be statistically substantial at P<0.001. Student Independent 't' test projected that t value is 6.03 statistically significant.

Coping strategies of rural area were 12.50 with SD of 2.51 and in the urban area mean score of 16.66 with SD of 1.80. However, the coping style of both rural area and urban area was found to be statistically significant at p<0.001. Student Independent 't' test projected t 9.52 statistically significant.

The mean total score for quality of life of rural area was 134.70 with SD of 17.33 and an urban area mean score was 160.14 with SD of 12.03. However, both rural area and urban area was found to be statistically significant. Student Independent 't' test projected a value is 8.53 which is statistically significant.

Health Related Quality of Life is associated with functional mobility among elderly staying in rural area with statistical significant relationship with age and employment and was not associated with other demographic data such as gender, marital, education, religion, resident, number of children, social support, and income.

The statistical research found that educational status and income had a substantial relationship. Other demographic qualities such as age, marital status, gender, employment, religion, residence, and number of children, also social support, and income, were found to have no statistically significant relationship.

DISCUSSION

In this study the mean scores were above average for the urban elderly in all physical, psychological, social, leisure time, coping and spiritual aspects than the rural elderly. However, both rural and urban elderly had maximum mean score in physical status and lowest score in coping style. Comparable conclusions were also found in the study conducted an urban and rural

region of Bangalore, South India (12).

The scoring of HRQoL data revealed that none of the elderly in the current study had very low HRQoL, whereas 40% of seniors in metropolitan areas have "Good HRQoL." Similar findings were found in a study carried out in an urban field practise region of a tertiary care institute in Ahmedabad, Gujarat (9).

Similar study was conducted as a participative teaching method based on health education on Healthy Diets and Regular Exercises in Achieving a Health-Related Quality of Life in Klang Valley, Malaysia (13). In this study educational status and family income were found to have a substantial relationship with HRQoL. This was supported another study on quality of life, self-rated health and social support among older adult in the Saudi Arabia community which showed similar results (14).

CONCLUSION

The urban elderly has better living condition and good quality of life relate to functional ability, mobility, free of physiological discomforts, psychological wellbeing, decision power, family support, involving leisure and recreational activities, spirituality, coping with friends and family compared to elderly living in rural area. The rural elderly is in need of social support system and health care services at village level to enhance their quality of life.

ACKNOWLEDGEMENTS

REFERENCES

1. Forrest LF, Adams J, Ben-Shlomo Y, Buckner S, Payne N, Rimmer M, Salway S, Sowden S, Walters K, White M. Age-related references in national public health, technology appraisal and clinical guidelines and guidance: documentary analysis. Age and ageing. 2017 May 1;46(3):500-8.
2. Chanda S, Mishra R. Impact of transition in work status and social participation on cognitive performance among elderly in India. BMC geriatrics. 2019 Dec;19(1):1-0.
3. Sarkisian CA, Prohaska TR, Wong MD, Hirsch S, Mangione CM. The relationship between expectations for aging and physical activity among older adults. Journal of general internal medicine. 2005 Oct 1;20(10):911-5.
4. Wang JJ, Lin JN, Lee FP. Psychologically abusive behavior by those caring for the elderly in a domestic context. Geriatric nursing. 2006 Sep 1;27(5):284-91.
5. Puvill T, Lindenberg J, De Craen AI, Slaets IP,

Westendorp RG. Impact of physical and mental health on life satisfaction in old age: a population based observational study. BMC geriatrics. 2016 Dec;16(1):1-9.

6. World Health Organization Quality of Life (WHOQOL), WHOQOL User Manual, Featured publication. 2012 Mar;1 :8.

7. Viji A. Assess the level of family support and quality of life of women underwent hysterectomy. International Journal of Applied Research 2018; 4(6); 319-321.

8. Michelson H, Bolund C, Nilsson B, Brandberg Y. Health-related quality of life measured by the EORTC QLQ-C30: reference values from a large sample of the Swedish population. Acta oncologica. 2000 Jan 1;39(4):477-84.

9. Shah VR, Christian DS, Prajapati AC, Patel MM, Sonaliya KN. Quality of life among elderly population residing in urban field practice area of a tertiary care institute of Ahmedabad city, Gujarat. Journal of family medicine and primary care. 2017 Jan;6(1):101.

10. Kurniawati D, Dewi A. Nutritional status and quality of life in elderly. The Malaysian Journal of Nursing (MJN). 2018 Jan 3;9(3):11-5.

11. GEOIQ. 2021. Retrieved from https://geoiq.io/places/Balaji-Nagar/9sGAQ07YjT

12. Krishnappa L, Gadicherla S, Chidambaram P, Murthy NS. Quality of life (QOL) among older persons in an urban and rural area of Bangalore, South India. Journal of Family Medicine and Primary Care. 2021 Jan;10(1):272.

13. Dioso RI, Poddar S, Abdullah BF, Hassan HC. Effectiveness of Online Health Education on Healthy Diets and Regular Exercises in Achieving a Health Related Quality of Life During This Pandemic Era. Malaysian Journal of Medicine and Health Sciences. 17(SUPP4): 67-72, June 2021

14. Abou El-Soud FA, Alhoraim SA, Alammar BA, Alotaibi RS. Quality of Life, Self-Rated Health and Social Support Among Older Adult in the Saudi Community. The Malaysian Journal of Nursing (MJN). 2020 Jan 2;11(3):13-25.

ORIGINAL ARTICLE

Quality of Life Among Type Two Diabetes Mellitus Clients in an Urban Area of Tirupati

Suleman Shareef Mahammad[1,6], Armugham Indira[2], Amiya Bhaumik[3], Smitha P.M.[4], T Usha Kiran[5], P Navya Keerthana[6], Ruma Poddar[3], Bibi Florina Binti Abdullah[3], Regidor III Dioso[3]

1 Ph.D. Nursing Scholar in Lincoln University College, Malaysia
2 Faculty of Nursing, Narayana College of NursingAddress: Chinthareddypalem, Nellore, Andhra Pradesh 524003, India
3 Lincoln University College, No. 12-18, Off Jalan Perbandaran, SS6/12, Kelana Jaya, 47301 Petaling Jaya, Selangor D. E., Malaysia.
4 Department of Mental Health Nursing, Narayana College of Nursing Chinthareddypalem, Nellore, Andhra Pradesh 524003, India
5 Department of Obstetrics & Gynaecology Health Nursing, Narayana College of Nursing Chinthareddypalem, Nellore, Andhra Pradesh 524003, India
6 Department of Community Medicine, Sri Venkateswara Institute of Medical Sciences-Sri Padmavathi Medical College for Women, Tirupati. 517507, Andhra Pradesh, India

ABSTRACT

Introduction: Quality of Life (QoL) is defined as "the state of being alive as a result of the interaction between factors that influence health, happiness (including physical comfort and a rewarding occupation), education, social and intellectual attainments, freedom of action, justice, and expression. **Methods:** The study was conducted in Sri Padmavathi Medical College for Women, Tirupati, Chittoor District, Andhra Pradesh, India, A community-based cross-sectional study was done. The WHO-QoL BREF questionnaire was used to measure the quality of life of 120 Type 2 diabetes mellitus (T2DM) patients. **Results:** Of the 120 T2DM patients, the demography revealed that age group was within 60-69 years (65.8%) of the clients included in this study, males (51.7%), nuclear families (78.3%), Hindus (67.5%), and literates (78.3%). Majority of families belonged to upper lower socio-economic group (45%). Most of them were backward classes (30%). The mean total transformed QoL score was high among ≥80 years, males, illiterates and upper class. All these differences were statistically non-significant. However, the mean total transformed QoL score showed significant relation with socio-economic class. **Conclusion:** Most of the study population were leading moderate quality of life followed by good quality of life. Based on total domain QoL scores, it was concluded from this study that overall QoL was good among T2DM clients were ≥80 years, males, illiterates and the population in upper socioeconomic class. The mean total transformed QoL score showed significant relation with socio-economic class.

Keywords: Quality of life, Socio-demographic factors, Type2 Diabetes Mellitus Clients, WHO QoL BREF

Corresponding Author:
Suleman Shareef Mahammad, M.Sc Nursing
Email: shareef9293@gmail.com
Tel: +919618266272

INTRODUCTION

Diabetes is a constant medical issue that influences transformation of food within the body to release energy, then the body either doesn't make sufficient insulin or is unable to utilize the insulin optimally: when there isn't sufficient insulin, an excessive amount of glucose remain in the circulatory system (1). The number of people with diabetes is increasing due to population growth, aging, urbanization, and increasing prevalence of obesity and physical inactivity. Measuring the prevalence of diabetes and the number of people affected by diabetes, now and in the forthcoming period, is vital for rational planning and allocation of resources (2).

Diabetes mellitus impacts 387 million people worldwide,

with the number predicted to rise by 205 million by 2035, with around 75 million diabetics living in the Southeast Asian area (3). The condition of life resulting from the collective effects of variety of factors such as those determining health, happiness (including comfort in the physical environment and a satisfying occupation), education, social and intellectual attainments, freedom of action, justice, and freedom of expression (4).

Since 1995, the WHO-QoL Group has established a comprehensive set of more than 100 indicators known as the WHO-QoL (World Health Organization–Quality of Life). Quality of life is described by the World Health Organization as an individual's appraisal of their place in life in relation to goals, expectations, norms, and concerns in the context of the culture and value systems in which they live (5).

In diabetes, quality of life is essential because low quality of life leads to decreased self-care, which refers to poorer glycaemic control, higher risk of complications, and aggravation of diabetes, which may be stressful in both the short and long term. As a result, it is clear that quality of life concerns is critical in predicting the efficiency of a person to be able to manage his condition and preserve his long-term health and well-being. It is also crucial for determining a patient's perceived burden of his chronic disease, observing health trends over time, and measuring the efficacy of treatment (6,7).

Patients with diabetes are likely to develop sightlessness, advance renal disease, lower-limb amputations, and death due to heart artery disease, cerebro-vascular illness, or peripheral vascular disease. Acute and chronic micro and macrovascular disorders that can arise in Individual with type 2 diabetes mellitus include retinopathy, nephropathy, neuropathy, peripheral vascular disease, coronary heart disease, and stroke. According to the CURES (Chennai Urban Rural Epidemical Study), 17.6% of patients had diabetic retinopathy, 26.9% had microalbuminuria, and 26.1% had peripheral neuropathy (8-10) According to the Chennai Urban Population Study (CUPS), 21.4% of diabetic patients had coronary artery disease and 6.35 had peripheral vascular disease (11,12). The United Kingdom Prospective Diabetes Study (UKPDS) has shown that good quality glycemic control can minimise diabetes difficulties considerably, paving the way for early analysis and treatment (13).

The study's goals are to establish the relationship between socio-demographic characteristics and QoL in Type 2 DM patients and to assess their quality of life.

MATERIALS AND METHODS

A cross-sectional study was organised among Type2 DM Clients belong to different socio-economic and varying demographic groups of urban field custom area of Sri Padmavathi medicinal College for Women (SVIMS) which comes under Urban Health Training Centre, Gandhi Road, Tirupati, Chittoor District, Andhra Pradesh, India.

Study setting
Urban field practice area of SVIMS, Sri Padmavathi Medicinal College for Women came under Urban Health Training Centre, Gandhi Road, Tirupati, Chittoor District, Andhra Pradesh, India. It includes 5 wards covering population of 42,438 (10,425 families) out of which Type2 Diabetic Mellitus Clients constitute 3,603 (1,843 males and 1,760 females).

Sampling

Sample size calculation:
Assuming the prevalence of morbidity among Type2 Diabetic Mellitus Clients to be 50%, we calculated the sample size for our study using the formula
$N = Z^2 pq/L^2$:
   p= 50
   q= 50 (100-p)
   L=10% of p
i.e.,
3.84x50x50/10x10 = 96

Based on the above, mock-up size was determined to be 96, considering a non-response rate of 20%, the total sample size was found to be116, round off to 120.

Inclusion criteria: All Type2 Diabetic Mellitus Clients aged 60 years and above, healthy and willing to participate in the study were selected.

Exclusion criteria: Those who were bedridden and under treatment for chronic diseases and have known terminal or mental illness. Those who were not willing to participate in the study were excluded.

The sample of the study subjects to be drawn from each ward in urban field practice area has been calculated by the method of probability proportional to population size. The proportional sample for individual wards in urban area was obtained by multiplying this fraction to the Type 2 Diabetic Mellitus Clients of the selected wards. In the final stage, Type2 Diabetic Mellitus Clients aged 60 years and above in the selected households were included in the study.

All the households in urban field practice area, in each ward were selected by systematic random sampling method. Sampling started from 1st right side house in a selected street. After that every 30th house was selected. If the members of the household were not eligible for the study, then the immediate next house was visited till the sample size was achieved. Thus, the final sample of 120 study subjects included in the study were collected

from the 5 wards in urban field practice area by using Stratified random sampling method with proportional allocation.

Data collection

The study tool consisted of two parts –
1. Socio-demographic details. In this the socio-economic status of the families were classified based on modified Kuppuswamy scale (14) and
2. WHO-QOL BREF (15) instrument questionnaire. After obtaining informed consent from the study subjects, they were interviewed and the data was collected on socio-demographic factors that include age, sex, type of family, religion, caste, education and socio-economic status using a structured questionnaire along with application of the instrument WHO-QoL scale.

WHO Quality of Life-BREF Scale: The WHO quality of life BREF field version is a 26-item self-administered questionnaire that focuses on Type 2 Diabetes Mellitus patients. Data regarding subjective reactions rather than objective life conditions were collected, with assessments performed over the previous two weeks. Physical health, psychological well-being, social relationships, and the environment are all factors on this scale. Except for 3,4, and 26, which were assessed in reverse order, each item is rated from 1 to 5. According to WHO recommendations, 25 raw scores for each domain were obtained by aggregating the values of single items and then translated into a score ranging from 0 to 100, with 100 being the highest value and 0 representing the lowest. Each domain's mean score, total score, and average score were determined. The major goal is to determine an individual's overall opinion of health and quality of life. The higher the score, the better life quality.

The level of quality-of-life scores were categorized into 5 grades. Scoring 0-26 is considered as very poor, 27-52 is considered as poor, 53-78 as moderate, 79-104 as good and 105-130 rated as very good level of quality of life.

Data Analysis:
The Statistical Package for Social Sciences (SPSS) 26 version software was used for data entry and analysis. Descriptive statistics were calculated for background variables including socio-demographic characteristics. The findings for each domain was expressed in terms of mean and SD. The significant difference between two mean scores was tested by independent sample t-test and significant difference between more than 2 means were tested by One ANOVA test. The P value less than 0.05 was considered as significant.

Ethical Clearance:
The study protocol was approved by the Institutional Ethical committee, in Human subjects, Narayana College of Nursing, Nellore, India vide File.No:02/PhD(N)/LU/2018 dated 6th June 2018.

RESULTS

From the present study it was evident that most of the study population were in the age group of 60-69 years (65.8%) followed by 70-79 years (25.8%) and ≥80 years (8.3%). Most of them were males (51.7%). Most of the study population belong to nuclear families (78.3%) followed by joint families (25%) and extended families (0.8%) respectively. About 67.5% of the families belong to Hindu religion followed by Muslims (22.5%) and Christians (10%) respectively. About 30% of the families belong to backward caste followed by schedule caste (25%), others (24%) and schedule tribe (20.8%) respectively. Most of them were literates (78.3%). Majority of families (45%) belongs to upper lower-class group followed by lower middle class (39.2%), upper middle class (12.5%), lower class (2.5%) and upper class (0.8%) respectively.

Most of the study population (60%) were leading moderate quality of life followed by good quality of life and only 0.8% of study population were leading poor quality of life given in

Table I: Distribution of study Type2 Diabetic Mellitus Clients according to Quality of life (n=120).

Quality of Life	Number	Percent
Very Poor	0	0
Poor	1	0.8
Moderate	72	60
Good	47	39.2
Very Good	0	0
Total	**120**	**100**

Table II shows mean of total transformed scores (QoL). Mean total transformed score was high among ≥80 years followed by 60-69 years and 70-79 years respectively, Males were showing high mean total transformed score compared to females, illiterates, showing high mean total transformed scores compared to literates. All these differences were statistically non-significant. Upper socioeconomic class were showing high score followed by lower, upper middle, lower middle and upper lower classes respectively and it was statistically significant.

The mean physical domain transformed QoL score was high among 70-79 years, female population, literates and lower socioeconomic class. All these differences were statistically non-significant.

The mean psychological domain transformed QoL score was high among ≥80 years, male population, literates and upper class. All these differences were statistically

non-significant as shown in Table II.

The mean social relationship transformed QoL score domain was high among 60-69 years, male population and illiterates. These differences were statistically non-significant. Mean social relationship transformed QoL score was high among upper class. This difference was statistically significant as given in Table II.

however it was higher (2.9%) in studies done by Raghavendra et al., (2017) (17) and 28% as shown by Alshayban (2020) (19).

The mean physical domain score was higher in female population, while in the studies conducted by Raghavendra et al., (2017) (17) and Jain et al., (2014) (20) male population had higher mean physical domain

Table II: Distribution according to Total Transformed Scores, physical, psychological, social and environmental domains:

Variable	Mean ± SD (total transformed score)	Mean ± SD (physical domain transformed score)	Mean ± SD (psychological domain transformed score)	Mean ± SD (social domain transformed score)	Mean ± SD (environmental domain transformed score)
Age (in years)					
60-69	186.75± 39.51	45.78±16.69	45.70 ± 12.51	47.92 ±14.90	47.34 ± 9.31
70-79	185.50± 41.05	46.67± 15.58	45.83 ± 12.43	45.38 ±13.50	47.90 ± 9.78
≥80	191.60± 30.66	45.90± 15.68	49.90 ± 8.25	44.30 ±14.15	51.50 ± 8.35
P value	0.920	0.967	0.589	0.593	0.419
Sex					
Male	187.64 ± 41.93	45.62 ±15.84	46.58 ± 12.41	48.32 ±15.57	47.11 ± 9.63
Female	186.13 ± 35.96	46.44 ±16.72	45.56 ± 11.98	45.51 ±13.10	48.60 ± 9.07
P value	0.834	0.783	0.651	0.290	0.386
Education					
Illiterates	187.34 ± 38.82	45.80 ± 19.93	43.76 ± 11.33	49.07 ±12.95	48.69 ± 9.31
Literates	186.79 ± 39.26	46.08 ± 15.14	46.73 ± 12.37	46.38 ±14.84	47.59 ± 9.40
P value	0.950	0.939	0.273	0.402	0.599
Socioeconomic Class					
Upper	225	56	56	69	44
Upper Middle	208.33 ± 50.10	47.66 ± 19.79	51.73 ± 16.52	58.33 ±12.51	50.60 ± 9.96
Lower Middle	184.12 ± 29.99	46.29 ± 15.01	44.95 ± 10.92	45.27 ±12.74	47.59 ± 8.12
Upper Lower	180.66 ± 41.10	44.22 ± 16.22	44.87 ± 11.66	44.24 ±14.80	47.33 ± 10.48
Lower	223.33 ± 9.29	62.66 ± 12.50	54.33 ± 9.60	58.33 ± 9.71	48 ± 3.46
P value	0.043	0.361	0.183	0.002	0.803

The mean environmental domain transformed QoL score was high among ≥80 years, female population, illiterates and upper middle class. All these differences were statistically non-significant shown in Table II.

DISCUSSION

In this study most of the study population were in the age group of 60-69 years (65%). Similar distribution was observed by Kavi et al., (2016) (16). While in other study conducted by Raghavendra et al., (2017) (17) showed only 20.5% of study population were in the age group of 61-70years and Zare et al., (2020) (18) 33.89 % of study population were in the age group of >60Years.

In this Study 39.2% of Type2 DM clients had good QoL, however which was higher (55%) in another findings reported by Raghavendra et al., (2017) (17) and lower (21%) as reported in the study done by Dhfer Alshayban (2020) (19).

In this current study 60% of Type2 DM clients had moderate QoL, however which was lower findings observed in these studies done by (28.6%) Raghavendra N et.al (2017) (17) and (5
In this study 0.8 of Type

scores.

The mean psychological and social relationship domains score was higher in male population, similar findings was observed in the studies done by Raghavendra et al., (2017) (17) and Jain et al., (2014) (20).

The mean Environmental domain score was higher in female population, while Raghavendra et al., (2017) (17) study male population had higher mean and Jain et al., (2014) (20) female population had higher mean physical domain scores.

Males were showed high mean Total Transformer scores compared to females, were as it was opposite in the study done by Raghavendra et al., (2017) (17).

About 60% of the study population were leading Moderate Quality of Life, 39.2% were in Good Quality of life and only 0.8% of study population were leading Poor Quality of Life. In another study by Aschalew et al., (2020) (21), Neutral Quality of life is 33.58%, Poor Quality of life is 21.81% and Good Quality of life is 41.91%. The good quality of life is similar in both the studies, but poor quality of life is less in present study.

CONCLUSION

The main purpose and significance of the study was to assess the quality of life in Type 2 diabetes mellitus patient. It was found that most of the study population were leading moderate quality of life followed by good quality of life. From the present study it was evident that total domain QoL scores, overall QoL was good among T2DM clients were ≥80 years, males, illiterates and the population in upper socioeconomic class. The mean total transformed QoL score showed significant relation with socio-economic class among upper middle-class population. The study shows that significant mean difference in between socio-economic status of total transformed mean scores, social domain transformed scores. The study will help in guiding the development of effective intervention programs to improve T2DM related QoL. More such programs must be developed to target especially to female gender, older age, from low socio-economic status with multiple complications related to diabetes.

ACKNOWLEDGMENTS

REFERENCES

1. Centers for Disease Control and Prevention. What is Diabetes? 2020. Available at: https://www.cdc.gov/diabetes/basics/diabetes.html.

2. Wild S, Roglic G, Green A, Sicree R, King H. Global prevalence of diabetes: estimates for the year 2000 and projections for 2030. Diabetes care. 2004 May 1;27(5):1047-53.

3. Rajput M, Arivarasan Y, Khongsit A, Rajput R. Quality of life among diabetics: A cross-sectional study in a tertiary care center of Rohtak, Haryana. Indian Journal of Community Medicine: Official Publication of Indian Association of Preventive & Social Medicine. 2020 Jul;45(3):283.

4. WHO-QoL Group, Field trail WHO QoL-100 Facts and questions, Geneva (1995).pdf.

5. Group TW. The World Health Organization quality of life assessment (WHOQOL): development and general psychometric properties. Social science & medicine. 1998 Jun 15;46(12):1569-85.

6. Vigneshwaran E, Padmanabhareddy Y, Devanna N, Alvarez-Uria G. Gender differences in health related quality of life of people living with HIV/AIDS in the era of highly active antiretroviral therapy. North American journal of medical sciences. 2013 Feb;5(2):102.

7. Garratt AM, Schmidt L, Fitzpatrick R. Patient - assessed health outcome measures for diabetes: a structured review. Diabetic Medicine. 2002 Jan;19(1):1-1.

8. Rema M, Premkumar S, Anitha B, Deepa R, Pradeepa R, Mohan V. Prevalence of diabetic retinopathy in urban India: the Chennai Urban Rural Epidemiology Study (CURES) eye study, I. Investigative ophthalmology & visual science. 2005 Jul 1;46(7):2328-33.

9. Unnikrishnan R, Rema M, Pradeepa R, Deepa M, Shanthirani CS, Deepa R, Mohan V. Prevalence and risk factors of diabetic nephropathy in an urban South Indian population: the Chennai Urban Rural Epidemiology Study (CURES 45). Diabetes care. 2007 Aug 1;30(8):2019-24.

10. Pradeepa R, Rema M, Vignesh J, Deepa M, Deepa R, Mohan V. Prevalence and risk factors for diabetic neuropathy in an urban south Indian population: the Chennai Urban Rural Epidemiology Study (CURES-55). Diabetic medicine. 2008 Apr;25(4):407-12

11. Mohan V, Deepa R, Shanthi Rani S, Premalatha G. Prevalence of coronary artery disease and its relationship to lipids in a selected population in South India: The Chennai Urban Population Study (CUPS No. 5). Journal of the American College of Cardiology. 2001 Sep;38(3):682-7.

12. Premalatha G, Shanthirani S, Deepa R, Markovitz J, Mohan V. Prevalence and risk factors of peripheral vascular disease in a selected South Indian population: the Chennai Urban Population Study. Diabetes care. 2000 Sep 1;23(9):1295-300.

13. Davis TM, Cull CA, Holman RR. Relationship between ethnicity and glycemic control, lipid profiles, and of type 2 dia

(UKPDS 55). Diabetes care. 2001 Jul 1;24(7):1167-74.

14. Saleem SM. Modified Kuppuswamy socioeconomic scale updated for the year 2019. Indian J Forensic Community Med. 2019 Jan;6(1):1-3.

15. World Health Organization. WHOQOL-BREF: introduction, administration, scoring and generic version of the assessment: field trial version, December 1996. World Health Organization; 1996. Available from http://www.who.int/mental-health/media/en/76.pdf.

16. Kavi A, Walvekar PR, Mallapur MD. Assessment of health related quality of life of elderly diabetic patients attending urban primary health care facility-a cross sectional study. International Journal of Community Medicine and Public Health. 2016 Aug;3(8):2258.

17. Raghavendra N, Viveki RG, Gadgade A. An observational study to assess the health-related quality of life of type 2 diabetes mellitus patients attending a tertiary care hospital, Belagavi. Int J Community Med Public Health. 2017;4:3347-53.

18. Zare F, Ameri H, Madadizadeh F, Reza Aghaei M. Health-related quality of life and its associated factors in patients with type 2 diabetes mellitus. SAGE Open Medicine. 2020 Oct;8:2050312120965314.

19. Alshayban D, Joseph R. Health-related quality of life among patients with type 2 diabetes mellitus in Eastern Province, Saudi Arabia: a cross-sectional study. PLoS One. 2020 Jan 10;15(1):e0227573.. https://doi.org/10.1371/journal. pone.0227573

20. Jain V, Shivkumar S, Gupta O. Health-related quality of life (hr-qol) in patients with type 2 diabetes mellitus. North American journal of medical sciences. 2014 Feb;6(2):96.

21. Aschalew AY, Yitayal M, Minyihun A. Health-related quality of life and associated factors among patients with diabetes mellitus at the University of Gondar referral hospital. Health and quality of life outcomes. 2020 Dec;18(1):1-8.

Assessment of Cognitive Behaviour Therapy utility on emotional and social well beingness among women with surgical menopause

8 authors, including:

Smitha Poovathinkal Madhavan
Narayana College of Nursing, Nellore
19 PUBLICATIONS   **6** CITATIONS

SEE PROFILE

Hjh Bibi Florina Abdullah
Lincoln University College, Malaysia
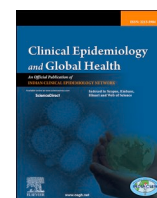**9** PUBLICATIONS   **7** CITATIONS

SEE PROFILE

A V Siva Kumar
Narayana Medical College & Hospital
45 PUBLICATIONS   **161** CITATIONS

SEE PROFILE

Dr. B Q...
Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Assessment of Cognitive Behaviour Therapy utility on emotional and social well beingness among women with surgical menopause

Smitha Poovathinkal Madhavan [a,b,*], Indira Armugham [c], Hjh Bibi Florina Binti Abdullah [d], Rajeswari Hemanathan [b], Suleman Shareef [e], A. Viji [f], A.V. Siva Kumar [g], N. Anjani [b]

[a] *Department of Mental Health Nursing, Lincoln University College, Malaysia*
[b] *Department of Mental Health Nursing, Narayana College of Nursing, Nellore, AP, India*
[c] *Department of Medical-Surgical Nursing, Narayana College of Nursing, Nellore, AP, India*
[d] *Center for Post Graduate Studies, Lincoln University College, No. 12-18, Off Jalan Perbandaran, SS 6/12, Kelana Jaya, 47301, Selangor D. E, Malaysia*
[e] *Sri Venkateswara Institute of Medical Sciences, Tirupati, AP, India*
[f] *Department of Obstetrics and Gynaecological Nursing, Narayana College of Nursing, Nellore, AP, India*
[g] *Dept. of Physiology, Narayana Medical College and Hospital, Nellore, AndhraPradesh, India*

ABSTRACT

Background: Surgical menopause is the emergency procedure to be carried out in a woman when it is essential due to reproductive pathology. The post-surgical consequences should be monitored and controlled effectively with various intervention protocols. Cognitive-behavioral therapy is one of the commendable protocols to improve the emotional and social profile in women with surgical menopause.
Objective: To find the effectiveness of Cognitive Behavioural Therapy on emotional and social wellbeing among women with surgical menopause.
Material & methods: It is a randomized controlled trial carried out in 230 women who have undergone surgical menopause. The participants were randomly allocated into the intervention and control groups. After obtaining demographics, CBT intervention was introduced - Cognitive Behaviour Therapy program-, which lasted seven months and included all six sessions. The pre and post-test questionnaires were obtained using the Emotional well-being scale and social concern scale respectively from both groups.
Results: The scores were significantly improved after intervention, in the experiment group, in pretest, the mean score was 9.45 and the post-test mean score was 14.18, the mean difference is 4.73 whereas, in the control group, the mean score of 9.06 and the post-test mean score was 9.41, the mean difference is 0.35 for social wellness. Posttest emotional wellness level was increased to 23.65%. Whereas in the control group, the posttest increased to 2.25%.
Conclusion: The CBT is an effective therapeutic intervention to improve social and emotional wellbeing among women with surgical menopause.

1. Background

Menopause is the natural consequence in a female associated with physiological changes that occur in bodily systems that significantly influence the eminence of women's life. Surgical menopause is an invasive emergency procedure in which the female gonads are removed (Oophorectomy).[1] The Australian Menopause Society (AMS) suggested the bilateral oophorectomy before attaining natural menopause-like ovarian cysts, benign ovarian tumors, and ovarian torsions.[2,3] The adversative effects of prophylactic oophorectomy are hormone deficiency-related symptoms, increased risk of attaining certain diseases, and amplified morbidity and mortality.[4,5] There is a large scale of post-menopausal consequences which would transform the women's lifestyle. These include physical, emotional, and systemic changes that compromise the homeostatic mechanisms in day-to-day life activities.[6] Unfortunately, emotional alterations accompanying the longstanding

---

lack of ovarian hormones may destabilize women with unstable psychiatric axes and emotional disturbances that significantly impacted their quality of life.[7,8] Depression seems to be increased due to the decline in estrogen levels and its impact on other neurotransmitters. 2.52 lakhs of women with untreated hot flashes were associated with non-symptomatic women.[9] The women with hot flashes displayed work-loss over one year period and 1.1 million accessory medical advice, and a health insurance huge cost.[10] Hormone replacement therapy (HRT) has been administered and considered a gold standard regimen to reduce the post-menopausal consequences.[11] The supplementation of Estrogen and Progesterone would be beneficial, but progressively Estrogen binding protein (EBP) increases during the initial days.[12] This would decrease the bioavailability of active hormones and immensely affects the physiological actions of Estrogen.[13] Various intervention protocols have been proposed to control the post-surgical menopause consequences other than HRT. Cognitive Behavioural Therapy (CBT) is one of the effective non-invasive intervention protocols to improve the quality and to reduce the symptoms of surgical menopause especially the psychological concerns of the women.[14] There are lacunae in the literature using CBT for effective control of post-menopausal symptoms. Therefore, the current study was intended to find out the effectiveness of CBT to ameliorate emotional and social wellbeing among women with surgical menopause .

2. Materials & methods

2.1. Study population

The researchers conducted a randomized controlled trial with 230 women aged 25 to 55 who had a surgical hysterectomy. The host institute's Institutional Ethics Committee examined and approved the complete procedure. The participants underwent complete general medical examinations and had their medical histories taken. Participants were ruled out if they had a well-known psychiatric problem, a history of hysterectomy with malignancy, or were on HRT. Subjects who met the inclusion criteria were explained the study's nature and purpose, and informed consent was obtained under the Helsinki Declaration of 1975 and its amendments. Demographic variables of the study are age, level of education, occupation, residence, marital status, duration of the marriage, level of husband's education, parity, any co-morbid illness, past menstrual problem, family history of surgical menopause, and reason for surgical menopause.

2.2. Allocation of participants

Simple randomization was used to assign participants to the intervention and control groups in a 1:1 ratio. The study included 230 women who met the requirements out of 320 who were screened. After that, participants were randomly assigned to one of two groups: the CBT intervention group (n = 115) or the control group (n = 115).

2.3. Intervention protocol

CBT (Cognitive-behavioral therapy) is a psychological process that aims to condense distress and dysfunction by exploring the user's integration of thoughts, feelings, and behavior with more positive and acceptable outcomes, which leads to the alleviation of psychiatric problems in a variety of conditions (Trower et al., 1988; Vonk and Early, 2009).[15,16] The total data collection period was for nine months. As a part of the preliminary assessment, a pretest was done for both the experimental and control group. During the intervention, Psychoeducation, Formulation, Behaviour-Emotional-Cognitive Connection, Behaviour Therapy, Cognitive restructuring, and Relapse prevention were all part of the Cognitive Behaviour Therapy program, which lasted seven months and included all six sessions. Each session was taught to them daily for six days, and it was mixed with the group and individual

sessions depending on the nature and demand of the technique. Each group of participants was given two months to practice the sessions. During this time, the participants were directly and telephonically monitored. In addition to CBT sessions for each group, a posttest was administered to those who had completed two months of practice. In the ninth month, the control group underwent a post-test using the same tool.

2.4. Outcome measurement

All the demographic variables were obtained from each participant before the CBT intervention protocol. The emotional wellness and social changes scores were collected using the Emotional wellness scale, Post-surgical social concern scale, respectively, before and after the intervention. These scales include the Likert summated scale with multiple options. Based on the scores, the participants can be categorized into various groups. The trained faculty did the data collection from the psychiatry department of the host institute.

2.4.1. Emotional wellness scale

This scale is a self-report measure of the emotional dimension of wellness. The total number of items in the questionnaire is 10. A three-point Likert scale is used. The scoring for 10 questions is 0,1, 2 respectively. The highest possible total score for the whole test would be twenty. This would mean the participant circled number two on all ten questions. Since the lowest possible score for each question is zero, the lowest possible score for the test would be zero. The total score reflects the level of emotional wellness dimensions among surgical menopause women. The scores were categorized as 15 to 20 Points - Excellent strength in this dimension, to 14 Points - There is room for improvement and 0 to 8 Points - This dimension needs a lot of work.[17]

2.4.2. Post-surgical social concern scale

It is the scale developed to measure social anxiety-related cognition. Psychometric properties were obtained in all participants to evaluate the social anxiety concerns of the patient.[18] The scores help to categorize as 1–7: Considered Normal, 8–15: Mild problems, 16–23: Moderate problems, and 24–30: Severe problems.

3. Statistical analysis

The data sets were expressed in a descriptive and inferential manner. All the data sets were analyzed using SPSS (Ver. 16). The normality of data was tested using the Smirnov Kolmogorov test. As the data sets were skewed, non-parametric tests were applied to determine the differences between pre-post-intervention.

4. Results

Table 1 shows the demographic information of the participants. The individuals in both groups were between the ages range between 25 and 55. In the experimental group, 53.91% of women experiencing surgical menopause were between the ages of 37 and 42. Around 62.6% of postmenopausal women in the control group were between the ages of 37 and 42. In the experimental group, 61.74% of women who had surgical menopause only had a high school education. In the control group, almost 61.74% of postmenopausal women had only an elementary education. In the experimental group, 65.21% of women with surgical menopause were housewives, whereas, in the control group, 72.17% of postmenopausal women were housewives. In the experimental group, 90.43% of women with surgical menopause were married, whereas, in the control group, 95.65% of postmenopausal women were married. In the experimental and control groups, respectively, 79.13% and 86.96% of women undergoing surgical menopause ... monthly bleeding was a rationale ... women with surgical menopause ...

Table:1

Demographic variables among women in both groups.

	Experimental group		Control group	
	No. of. women with surgical menopause (115)	Percentage (%)	No. of. women with surgical menopause (115)	Percentage (%)
Age				
25 -30	6	5.22	3	2.61
31 -36	30	26.09	27	23.48
37 -42	62	53.91	72	62.60
43 -48	12	10.43	10	8.70
49 -55	5	4.35	3	2.61
Level of Education				
No education	12	10.43	9	7.83
Primary education	71	61.74	71	61.74
Secondary education	21	18.26	24	20.86
Graduate	6	5.22	8	6.96
Postgraduate	5	4.35	3	2.61
Occupational status				
Coolie	25	21.74	25	21.74
Housewife	75	65.21	83	72.17
Government employee	5	4.35	3	2.61
Private employee	10	8.70	4	3.48
Marital status				
Married	104	90.43	110	95.65
Single	0	0.00	0	0.00
Divorced	2	1.74	2	1.74
Widow	9	7.83	3	2.61
Parity				
Nullipara	7	6.09	3	2.61
1-3 children	91	79.13	100	86.96
More than 3 children	17	14.78	12	10.43
Reason for surgical menopause				
Heavy bleeding	55	47.83	70	60.87
Fibroid	29	25.22	23	20.00
Family history of ovarian cancer	8	6.96	5	4.35
Pelvic inflammatory disease	3	2.61	3	2.61
Endometriosis	4	3.48	7	6.09
Uterine prolapse	16	13.91	7	6.09

menopause in the control group.

The difference in the experimental and control groups' emotional wellbeing scores at the beginning of the study. In the experimental group, 44.35% of them have a score of Needs a lot of work, 55.65% have a score of Room for Improvement, and none have a score of Excellent. In the control group, 49.57% had a score of Needs a lot of work, 50.43% had a score of Room for Improvement, and none had an Excellent score. "There is no substantial difference between the experimental and control groups,". As a result, the two groups are discovered to be homogeneous as shown in fig. 1. The difference in emotional wellbeing score between the experimental and control groups at the posttest. The experimental group contained no participants who scored Needs a lot of work, 41.74% who scored Room for Improvement, and 58.26% who scored Excellently. In the control group, 43.48% had a Needs a lot of work level of the score, 56.52% had Room for Improvement level of the score, and none had an Excellent level of score. "There is a considerable difference between the experimental and control groups," according to statistics as shown in table no:2(Fig. 5).

The social concern scale of both groups and pretest shows "There is no substantial difference between the experimental and control groups,". As a result, the two groups are discovered to be homogeneous as shown in table no:3. The difference in the experimental and control groups' post-test levels of the post-surgery social changes scale score. In the experimental group, 59.13% of the participants have a normal level of the score, 40.87% have a mildly affected level of the score, none have a substantially affected level of the score, and none have a severely affected level of score. Hence, the two groups are found to be homogenous as shown in fig. 2 The difference in the experimental and control groups' post-test levels of the post-surgery social changes scale score. In the experimental group, 59.13% of the participants have a normal level of the score, 40.87% have a mildly affected level of the score, none have a substantially affected level of the score, and none have a severely affected level of score (Fig. 3). None of the participants in the control group have a normal level of the score, with 50.43% having a mildly affected level of the score, 49.57% having a moderately affected level of the score, and none having a severely affected level of score (Fig. 4). "There is a considerable difference between the experimental and control groups," as shown in tables no: 4 &5(Fig. 6).

5. Discussion

The goal of this study was to see how Cognitive Behavioural Therapy (CBT) impacted the emotional and social wellbeing of women with surgical menopause. After CBT therapy, emotion levels and social wellbeing levels were found to be significantly improved.
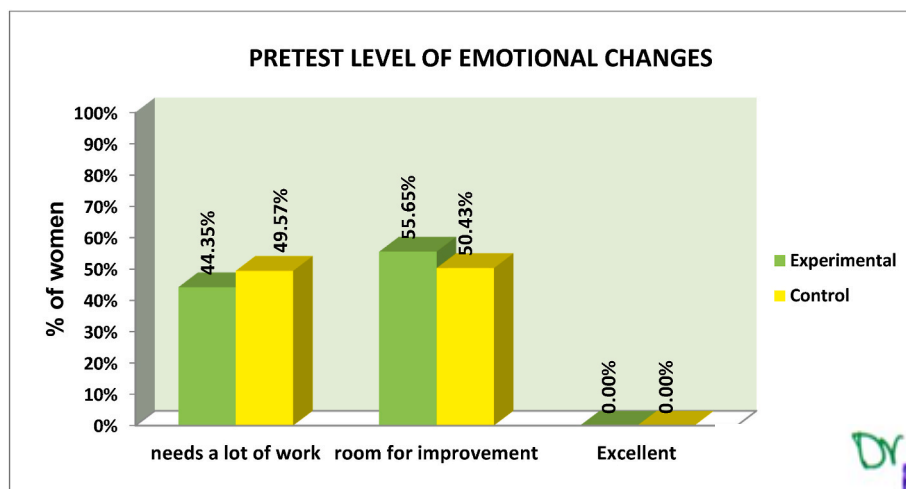

Fig. 1. Distribution of pretest level of emotional changes among women with s

Table 2

Distribution of pretest and posttest level of social changes among women with surgical menopause (n = 230).

Level of post-surgical social changes	Experimental				Control				Chi-square test
	Pretest		Posttest		Pretest		Posttest		
	n	%	n	%	n	%	n	%	Pretest
Normal	0	0.00	68	59.13	0	0.00	0	0.00	χ2 = 1.82
Mild affect	43	37.39	47	40.87	52	45.22	58	50.43	P = 0.40
									DF = 3(NS)
Moderate affect	70	60.87	0	0.00	60	52.17	57	49.57	**Posttest**
Severe affect	2	1.74	0	0.00	3	2.61	0	0.00	**χ2 = 126.15**
Total	**115**	**100**	**115**	**100**	**115**	**100**	**115**	**100**	**P = 0.001***
									DF = 3(S***)

NS = not significant DF = Degrees of Freedom P > 0.05 not significant, ***p ≤ 0.001very high significant.

Table 3

Distribution of pretest and posttest level of emotional changes among women with surgical menopause (n = 230).

Level of emotional wellness	Experimental				Control				Chi-square test
	Pretest		Posttest		Pretest		Posttest		
	n	%	n	%	n	%	n	%	Pretest
Needs a lot of work	51	44.35	0	0.00	57	49.57	50	43.48	χ2 = 0.63
									P = 0.43
									DF = 2(NS)
Room for improvement	64	55.65	48	41.74	58	50.43	65	56.52	**Posttest**
Excellent	0	0.00	67	58.26	0	0.00	0	0.00	**χ2 = 119.55**
Total	**115**	**100**	**115**	**100**	**115**	**100**	**115**	**100**	**P = 0.001***
									DF = 2 (S***)

NS = not significant DF = Degrees of Freedom P > 0.05 not significant, ***p ≤ 0.001very high significant.
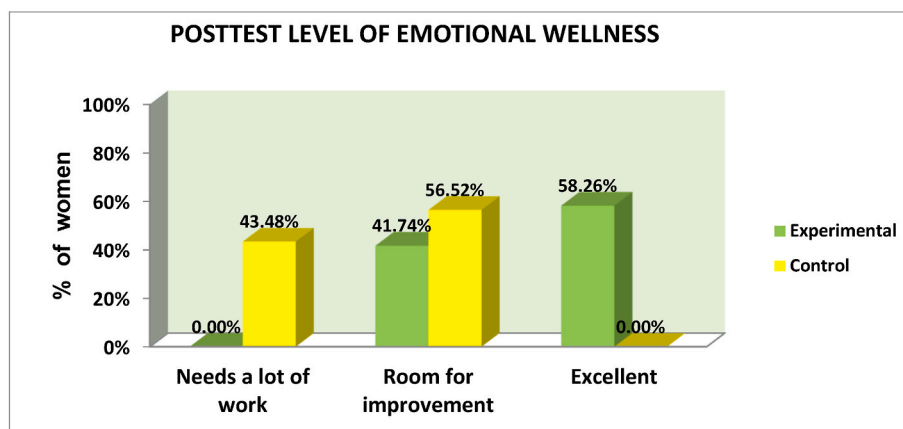

Fig. 2. Distribution of posttest level of emotional changes among women with surgical menopause.

The pathophysiology that happens as a result of menopausal symptoms can increase the risk of disease in the future.[19] Hot flashes were linked to a higher incidence of insulin resistance and glucose levels, according to the Study of Women's Health Across the Nation (SWAN). Severe heat flashes were "robustly" associated with increased intima media-thickness (IMT), a key indicator for subclinical cardiovascular disease, according to the SWAN scientists. More frequent and severe symptoms were linked to an increased risk of hypertension, cardiovascular disease, and stroke in the Women's Health Initiative Study (WHI). Following the onset of surgical menopause symptoms, 85% of the women received estrogen medication. Among these women, those who began treatment within five years of surgery and continued for more than ten years had the lowest risk of Alzheimer's disease.[20]

Cognitive-behavioral therapy (CBT) is a comprehensive, sophisticated, and emerging treatment approach that has been developed for and applies to a wide range of mental health and physical issues and diseases. CBT has evolved into one of the most well-known forms of psychotherapy since its inception in the 1970s, and it is widely distributed and used all over the world. The American Psychiatric Association, the Australian Psychological Association, the British National Institute for Clinical Excellence, and many others in different areas of the world have all recognized CBT as an evidence-based treatment for a wide range of problems.[21] CBT aims to control the thoughts, feelings, and behaviors of the individual which is essential to improve in women with surgical menopause.[22] The CBT intervention has proved that the emotional wellbeing score in the Experiment group, on average, in posttest after having an intervention, emotional wellness level is increased to the mean % of 23.65% % than pretest score. Whereas in the control group, on average, in posttest with routine, women emotional wellness level is increased to the mean % 2.25% than pretest score. This difference shows the effectiveness of Cognitive Behaviour Therapy on emotional wellness, differences, and generalization of reduction between pretest and posttest scores. Similar results were also observed for social well-being in the Experiment group, on average, in the posttest after having an
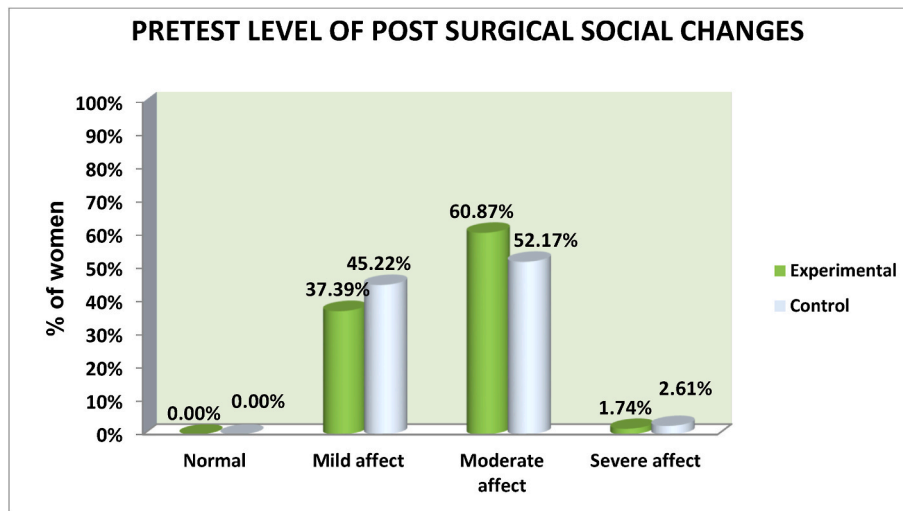
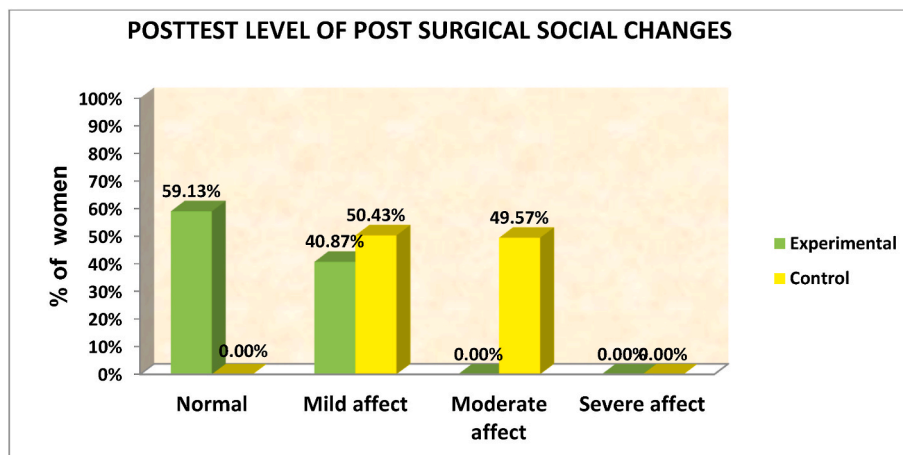**Fig. 3.** Distribution of pretest level of social changes among women with surgical menopause.

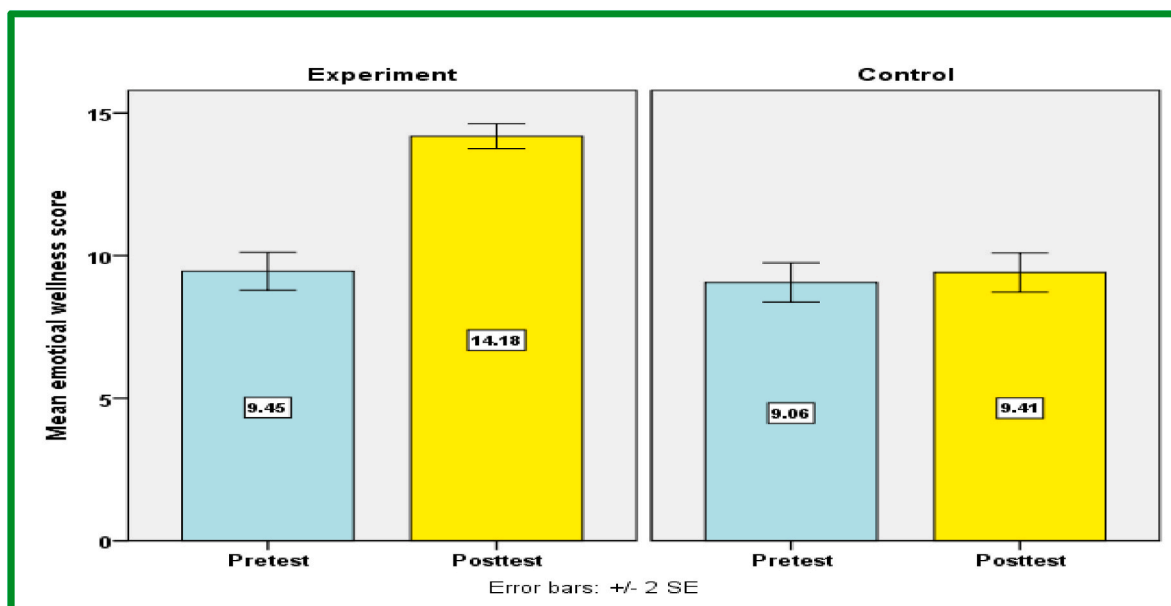**Fig. 4.** Distribution of posttest level of social changes among women with surgical menopause.

Fig. 5. Effectiveness of cognitive behavior therapy on emotional changes among women with surgical menopause.
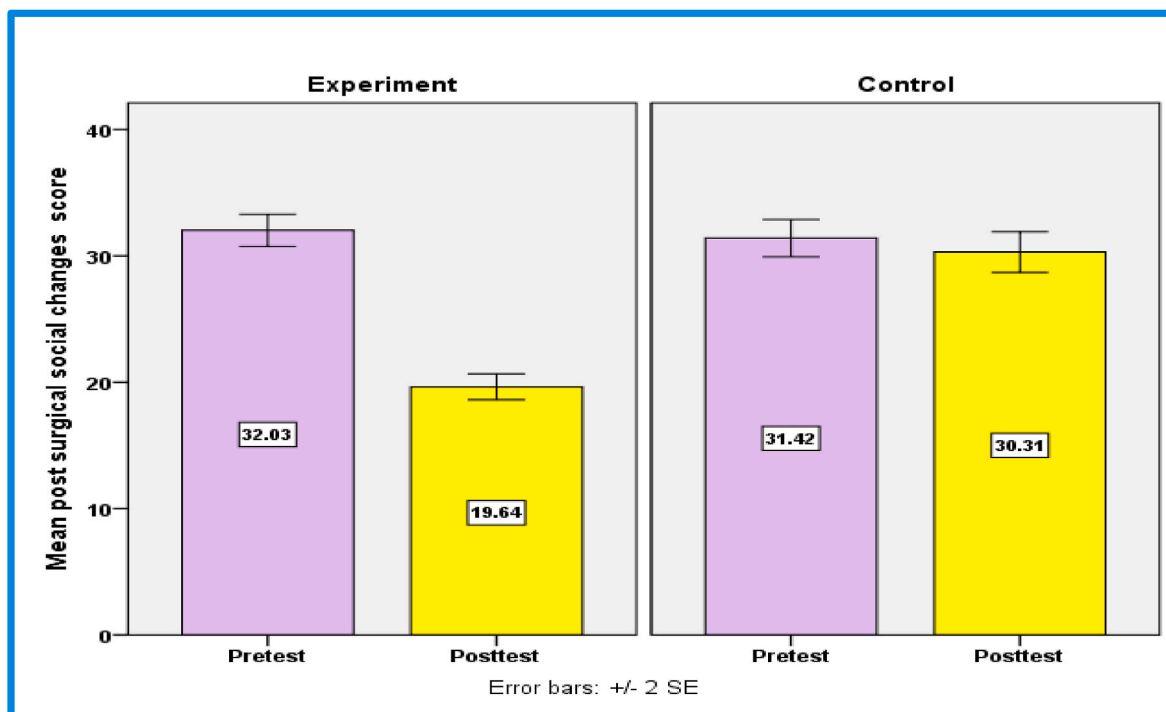
Fig. 6. Effectiveness of cognitive behavior therapy on post-surgical social changes among women with surgical menopause.

Table 4
Effectiveness of cognitive behavior therapy on post-surgical emotional changes among women with surgical menopause (n = 230).

Group	Test	Max score	Mean score	%Mean score	Mean emotional Wellness gain score with 95% Confidence interval	Percentage of emotional Wellness gain score with 95% Confidence interval
Experiment	Pretest	20	9.45	47.25%	4.73	23.65% (20.95%–26.35%)
	Posttest	20	14.18	70.90%	(4.19–5.27)	
Control	Pretest	20	9.06	45.30%	0.45	2.25%
	Posttest	20	9.41	47.05%	(-0.01 – 0.71)	(-0.05%−3.55%)

Table 5
Effectiveness of cognitive behavior therapy on post-surgical social changes among women with surgical menopause (n = 230).

Group	Test	Max score	Mean score	%Mean score	Mean post-surgical social changes reduction score with 95% Confidence interval	Percentage of post-surgical social changes reduction score with 95% Confidence interval
Experiment	Pretest	60	32.03	53.38%	12.39	20.65% (17.95%–23.36%)
	Posttest	60	19.64	32.73%	(10.77–14.02)	
Control	Pretest	60	31.42	52.37%	1.11	1.85%
	Posttest	60	30.31	50.51%	(-0.06 – 2.27)	(-0.10%−3.78%)

intervention, the level of the social change is reduced to the mean score of 20.65% than the pretest score. Whereas in the control group, on average, in posttest with routine, women with post-surgical social changes are reduced to the mean score of 1.85% than pretest score. This difference shows the effectiveness of Cognitive Behaviour Therapy on post-surgical social changes differences and generalization of reduction between pretest and posttest scores. The CBT has given enough strong evidence as treatment therapy along with HRT could be more beneficial to reduce the postmenopausal consequences.[23,24] It is a non-invasive, user-friendly protocol than any other behavioral therapy. However, further studies are warranted to increase the strength of results and to produce enough power for CBT intervention.

Conclusion

The current study reveals that cognitive-behavioral therapy is a useful intervention tool to improve the quality of emotional and social

concerns level in women with surgical menopause. It is a simple, non-invasive, and effective intervention to reduce further consequences in women with surgical menopause. The study findings have to be confirmed with more sample size to rule out further about the implementation and accessibility of CBT.

of Narayana Nursing College and Hospitals for providing basic amenities and facilities during the study.

References

1 Meeta LD, Agarwal N, Vaze N, Shah R, Malik S. Clinical practice guidelines on menopause: an executive summary and recommendations. *J Mid Life Health*. 2013 Apr;4(2):77.

2 Prince R, Smith M, Price RI, Dick I. Symptomatic effects of continuous estrogen and progesterone studies in a double-blind placebo-controlled trial. In Symptomatic Effects of Continuous Estrogen and Progesterone Studies in a Double-Blind Placebo-Controlled Trial 1992 (pp. 49-49). Australian Menopause Society.

3 Baber RJ, Wright J. A brief history of the international menopause society. *Climacteric*. 2017 Mar 4;20(2):85–90.

4 Cooper GS, Sandler DP. Age at natural menopause and mortality. *Ann Epidemiol*. 1998 May 1;8(4):229–235.

5 Rodriguez M, Shoupe D. Surgical menopause. *Endocrinol Metabol Clin*. 2015 Sep 1;44 (3):531–542.

6 Georgakis MK, Beskou-Kontou T, Theodoridis I, Skalkidou A, Petridou ET. Surgical menopause in association with cognitive function and risk of dementia: a systematic review and meta-analysis. *Psychoneuroendocrinology*. 2019 Aug 1;106:9–19.

7 Shifren JL, Avis NE. Surgical menopause: effects on psychological well-being and sexuality. *Menopause*. 2007 May 1;14(3):586–591.

8 Mendoza N, Suárez AM, Alamo F, Bartual E, Vergara F, Herruzo A. Lipid effects, effectiveness and acceptability of tibolone versus transdermic 17β-estradiol for hormonal replacement therapy in women with surgical menopause. *Maturitas*. 2000 Nov 30;37(1):37–43.

9 Unni J. Third consensus meeting of Indian Menopause Society (2008): a summary. *J Mid Life Health*. 2010 Jan;1(1):43.

10 Whiteley J, DiBonaventura MD, Wagner JS, Alvir J, Shah S. The impact of menopausal symptoms on quality of life, productivity, and economic outcomes. *J Wom Health*. 2013 Nov 1;22(11):983–990.

11 Lip GY, Blann AD, Jones AF, Beevers DG. Effects of hormone-replacement therapy on hemostatic factors, lipid factors, and endothelial function in women undergoing surgical menopause: implications for prevention of atherosclerosis. *Am Heart J*. 1997 Oct 1;134(4):764–771.

12 Jang JH, Arora N, Kwon JS, Hanley GE. Hormone therapy use after premature surgical menopause based on prescription records: a population-based study. *J Obstet Gynaecol Can*. 2020 Dec 1;42(12):1511–1517.

13 Al Kadri H, Hassan S, Al-Fozan HM, Hajeer A. Hormone therapy for endometriosis and surgical menopause. *Cochrane Database Syst Rev*. 2009;(1).

14 Rothbaum BO, Meadows EA, Resick P, Foy DW. Cognitive-behavioral Therapy.

15 Chadwick P, Trower P, Dagnan D. Measuring negative person evaluations: the evaluative beliefs scale. *Cognit Ther Res*. 1999 Oct;23(5):549–559.

16 Vonk ME, Early TJ. Cognitive-behavioral therapy. *Social workers' desk reference*. 2009:242–247.

17 Thimmapuram J, Pargament R, Sibliss K, Grim R, Risques R, Toorens E. Effect of heartfulness meditation on burnout, emotional wellness, and telomere length in health care professionals. *J Community Hosp Intern Med Perspect*. 2017 Jan 2;7(1): 21–27.

18 Andresen EN, Ramirez M, Kim KH, et al. Effects of surgical side and site on mood and behavior outcome in children with pharmacoresistant epilepsy. *Front Neurol*. 2014 Feb 19;5:18.

19 O'Neill S, Eden J. The pathophysiology of menopausal symptoms. *Obstet Gynaecol Reprod Med*. 2012 Mar 1;22(3):63–69.

20 Monteleone P, Mascagni G, Giannini A, Genazzani AR, Simoncini T. Symptoms of menopause—global prevalence, physiology, and implications. *Nat Rev Endocrinol*. 2018 Apr;14(4):199–215.

21 National Collaborating Centre for Mental Health (Great Britain), National Institute for Health, Clinical Excellence (Great Britain), British Psychological Society, Royal College of Psychiatrists. (Common mental health disorders: identification and pathways to care).

22 Murray K, Davidson G, Schweitzer R. Psychological Wellbeing of Refugees Resettling in Australia: A Literature Review Prepared for the Australian Psychological Society.

23 Kumar CK, Kumar AS, Madhurima P, Maruthy KN, Preetham GJ. Assessment of psychomotor skills using finger pulse guided biofeedback tool in young medical students: psychomotor skills using heart rate as a biofeedback tool. *Ann Med Physiol*. 2018 Dec 31;2(4):36–39.

24 Kumar CK, Maruthy KN, Sasikala P, Gurja JP, Kumar AV, Kareem SK. Impact of chronic alcoholism on temporal cognition and coordination of motor activity. *Int J Physiol*. 2018;6(4):124–127.

CHINESE JOURNAL OF MEDICAL GENETICS ASSESS THE EFFECTIVENESS OF SELF–INSTRUCTIONAL MODULE ON EARLY INITIATION OF BREASTFEEDING PRACTICES AMONG POSTNATAL WOMEN IN INDIA

9 authors, including:

Ushakiran Thirunavukarasu
Lincoln University College, Malaysia
6 PUBLICATIONS   **1** CITATION

SEE PROFILE

Gundluru Aruna
Narayana College of Nursing, Nellore.
26 PUBLICATIONS   **101** CITATIONS

SEE PROFILE

Suleman Shareef Mahammad
Lincoln University College, Malaysia
8 PUBLICATIONS   **4** CITATIONS

SEE PROFILE

Dr. B...
Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

ASSESS THE EFFECTIVENESS OF SELF-INSTRUCTIONAL MODULE ON EARLY INITIATION OF BREASTFEEDING PRACTICES AMONG POSTNATAL WOMEN IN INDIA

Usha kiran Thirunavukarasu[1*7], A Indira[2], V.Jayanthi[3], Kannagi Elangovan[4], Prathima Vuyyuru [5], Gundluru Aruna[6,7], Suleman Shareef Mahammad [7], Alex Viji [7]

[1,7]Ph.D. Scholar in Nursing, Lincoln University College, Malaysia.

[2]Ph D Supervisor in Nursing, Lincoln University College, Malaysia & Principal of Narayana College of Nursing, Nellore, Andhra Pradesh, India.
Email: narayana_nursing@yahoo.com,

[3]Principal, Sree Narayana Nursing College, Nellore, Andhra Pradesh, India.
Email: jayanthi_v@yahoo.com,

[4] PhD scholar in Nursing ,Bharath University, Chennai, Tamilnadu, India,
Email: kannagi.sk06@gmail.com

[5]Vice principal, Department of Community Health Nursing, Mallela Ramaiah College of Nursing, Nellore, Andhra Pradesh, India.
Email: prathimavuyyuru1988@gmail.com

[6] Assistant Professor, Sree Narayana Nursing college, Nellore, Andhra Pradesh, India.

[7]Ph D Scholar in Nursing, Lincoln University College, Malaysia

Corresponding Author:
Ushakiran Thirunavukarasu,

Associate Professor Department of OBG nursing, Sree Narayana Nursing College, Nellore, Andhra Pradesh, India. E-mail: ushakiranmsc13@gmail.com

Abstract

Introduction: Breastfeeding has numerous health benefits for both the mother and the baby. It is recommended by the World Health Organization that new mothers begin breastfeeding within one hour of giving birth, during which time colostrum, which contains numerous health benefits, is secreted. **Method**: Quasi-experimental research design was adopted and 520 postnatal mothers assessed their breastfeeding practices in the early stage of the postnatal period 260 as the experimental group and 260 as the control group using an observational checklist of early initiation of breastfeeding practices. The subject's age range was set between 18->33 years. And providing an intervention of educative material called breastfeeding initiative care to enhance the concept and practice of breastfeeding. **Results**: Frequency and percentage distribution of the breastfeeding practices among postnatal women none of them are having inadequate practice scores, 29.23% of them have Moderate scores.70.77%had adequate knowledge. Mean and Standard deviation regarding breastfeeding problems among postnatal mothers, statistically significant at the level of $p < 0.05$ the findings state that the effect on initiating breastfeeding, and those women of lower parity had a low score to breastfeed and parous women had moderate knowledge about the early

initiation of breastfeeding. **Conclusion**: The concept of early commencement of breastfeeding was unfamiliar to postnatal women with breastfeeding initiation care was adopted and proved effective in the improvement of knowledge in order to successfully execute the idea of breastfeeding, among postnatal mothers need adequate prenatal education.

Keywords: early initiation of Breastfeeding, postnatal women, exclusive breastfeeding, colostrum, Newborn

Introduction

Breastfeeding has numerous health benefits for both the mother and the baby. It is recommended by the World Health Organization that new mothers begin breastfeeding within one hour of giving birth, during which time colostrum, which contains numerous health benefits, is secreted [1]The importance of breastfeeding in meeting the fundamental needs of children to realize the human rights of children and to achieve the highest possible standards and affirms the importance of Health in the Protection, Promotion.[2]The evidence from epidemiology supports, Breastfeeding as a potentially effective intervention in the advancement of the Health of the mother and child. A great deal of significance has been placed on having been associated with the timely commencement of Breastfeeding; This means that breastfeeding should begin within one hour of birth, be continued for the first six months of the newborn, and after, that until the child has reached the age of 24 months.[3]

The majority of mothers (86 %) were breastfeeding their children, but only 22 per cent had begun breastfeeding their children within an hour of delivery. Only 70% of mothers were aware of the exclusivity clause. Only 18 per cent of mothers were aware of the proper method of breastfeeding their children.[4]Only 25% of the mothers expressed breast milk within one hour of the birth of their child. Even though the WHO has made many suggestions, the rates and lengths of Breast Feeding are still not what they should be worldwide. The United Nations Children's Fund (UNICEF) says Exclusive breastfeeding BF rates for the first six months haven't changed much. Breastfeeding should be started within an hour of delivery in hospitals. most factors of Breastfeeding practices are influenced by a variety of factors, including the socio-economic and obstetric characteristics of the mother and the period around the child's birth Early or timely initiation of breastfeeding is critical in preventing newborn deaths and has a positive impact on childhood nutrition.3

 However, breastfeeding rates in South Asia are low, and the factors and barriers that contribute to this need to be better understood. The evidence on factors and barriers to initiation of breastfeeding within one hour of birth in the South Asian region covered by this review includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.[5] National Family Health Survey (NFHS-4) states Only 41.6% of Indian newborns were breastfed within an hour of birth, according to the improvement over the previous round (NFHS-3;23.4%) but still far from ideal, [6]A mere 43 per cent of the world's newborns are breastfed within the first hour of their birth. Only 40 per cent of infants aged six months or less are exclusively breastfed.[7]

A total of 57.6 percent of women in 24 countries participating in the WHO's Global Survey on Maternal and Perinatal Health from 2004 to 2008 began breastfeeding before the age of one month;

in those countries, 39.9 percent of women began breastfeeding before one month of age. [8]Cultural beliefs about breast milk, especially the colostrum, not giving it on time and pre-lacteal feeding, and specific food preferences are mostly not following breastfeeding guidelines. Few cultural practices think that colostrum is "dirty" and should be thrown away because it makes way for natural milk. Another way is to give them water traditional way to say "welcome." Finally, pre-lacteals and other foods are thought to make kids stronger.[9],[1011] Since studies were done in India to assess the early initiation of breastfeeding, and is not enough. This study aimed to assess the early initiation of breastfeeding and feeding practice among postnatal mothers. It will be necessary for policymakers, health care providers, and stakeholders to improve the Practice of early breastfeeding initiation.

Aims and Objectives:

To assess the knowledge on early initiation of breastfeeding among postnatal women

To determine the effectiveness of SIM of breastfeeding practices among postnatal women

To associate the effectiveness of SIM of breastfeeding practices on early initiation of breastfeeding among postnatal women with their selected demographic variable

Methodology:

Materials and Methods:

An experimental study was conducted in the postnatal ward at Narayana Medical College and Hospital, Nellore, from December 2018 to May 2019 (6 months). The 520 subjects were selected by using the purposive sampling technique and divided into two groups, i.e. intervention group (260participants) & Control group (260participants). Postnatal Mothers with the acute phase of postpartum women for 6 to 12 hours and subacute phase for 24 to 48 hours. The Inclusion criteria includes that postnatal mother in the first 24 hours of postpartum. Healthy without breast abnormalities, free from medication regimen. Exclusion Criteria: is the mothers who are not willing to participate. Mothers with a high risk of co-morbid diseases (eclampsia, HIV, Breast access), Mothers with SGA babies, low birth weight babies, and congenital disabilities are not included in the study. To assess the practice of early initiation of breastfeeding practices among postnatal mothers. The investigator developed the modified checklist to know the level of breastfeeding practices by using the rating scale and observational checklist, which consists of 42items. 0- 22- Inadequate ≤ 50% score,22- 32-Moderate 51-75%,32-42 – Adequate 76-100%. Effectiveness of self-instructional module on breastfeeding an educative material was provided to postnatal. To calculate the required sample size, single population proportion formula was used. 73.1% of population proportion of early initiation of breastfeeding[1213] Based on pilot study, the percentage of Breast feeding practice was 54.52% among postnatal mothers within first1 hr.- 24 hours.Sample size was calculated 14% improvement difference from control group with power of the study 90% (β = 10%) and confidence of result 95% (type 1 error α = 5%). Allowing 5% of dropout rate, a total sample size was 520 mothers(260 experiment + 260 control)was included in this study.

$$n = \frac{[P1\ (100\text{-}P1) + P2\ ((100 - P2)]\ (Z_\alpha + Z_\beta)^2}{}$$

$$(P1-P2)^2$$

P1	=	54.52%
P2	=	68.52 %
α	=	1.96(allowable error 5%)
β	=	1.28(power of the study 90%)
d	=	14% (clinically meaningful difference)

$$n = \frac{[54.52 \times 45.48) + (68.52 \times 31.48]\,(1.96 + 1.28)^2}{14^2}$$

= 248 per group= (2479.57+2157.01)(10.5)/196

With a 5% dropout rate required sample size was 248+12= 260 mothers per group

The postnatal mothers were assessed for the breastfeeding concept. The problems encountered in the establishment of breastfeeding by checklist consist of 42 items which consists of The problem response was calculated with Those YES responses are scored 1. In contrast, those with the NO responses scored 0and

The Check list of early breastfeeding practice Total question was 36, Maximum 3 marks, minimum 1 mark effective:74-108, moderately effective: 37-73, ineffective: 1-36

Intervention

Postnatal mothers who met the inclusion criteria will be selected by non-probability convenient sampling during this period.260 was in the experimental group, and 260 was in the control group. Self-instructional module on early breastfeeding initiative care protocol was implemented in the experimental group and routine activities for the control group. A time limit of 30 minutes was taken for the investigator to collect data and implement the SIM on breastfeeding initiative care for each participant. It includes—influential position – Readiness and feeding position, and Breast assessment. – observing the typical signs of rhythmic reflexes of feeding. Breastmilk expression assessment Nipple, Breast condition Breast comfort, it includes\ breastfeeding compliance Frequency of expression, stimulating milk ejection; Using breast pump or hand expression, and Latching On. –Tummy to tummy, neck extension, wide-open mouth, fingers parallel, the follow-up was carried out for three days. The post-test was conducted using the rating scale to know the significant improvement of early breastfeeding initiation and its benefits to the mother and baby by self-instructional module . The data were analysed using descriptive and inferential statistics.

Ethical clearance:

The study protocol was approved by the ethics committee under the institutional ethics committee, Narayana College of Nursing, Nellore, India. File no:08/PhD(N)/LU/2018 dated 06th June 2018.

Results:

The post-test level of effectiveness   1ong experimental postnatal mothers with regard to   and (73.75%) are

between 23-27 years, (79.10%)28-32 and are between 30-35 years. (80.00%). In urban pre-test breastfeeding practice score percentage was 35.77%   and post test score was 64.23% and in post-test in Rural it shows the pre test scores are 15.45% with post-test shows 84.55% which is highly significant. Multi para and with Previous breast-feeding experience shows significance in 64.59% than primi para mothers 35.41% Which shows (100%) have the family practice of breastfeeding. 35.41%

Table 1:PRETEST LEVEL OF BREAST FEEDING PRACTICE SCORE

Level of the Practice score	Experiment		Control		Chi square test
	n	%	n	%	
Inadequate	177	68.08%	182	70.00%	$\chi2$=0.23
Moderate	83	31.92%	78	30.00%	P=0.64
Adequate	0	0.00%	0	0.00%	(NS)
Total	260	100.00%	260	100.00%	

 In pre-test, among experimental group, none of them are having adequate scores, 31.92% of them are having moderate practice score, 68.08% of them having inadequate score. In control group, none of them are having adequate scores,30.00% of them are having moderate score, 70.00% of them having attitude score. It means 68.08% of them having inadequate score and none of them are having adequate knowledge on breast feeding practice

Table 2:POSTTEST LEVEL OF BREASTFEEDING PRACTICE SCORE

Level of the Practice score	Experiment		Control		Chi-square test
	n	%	n	%	
Inadequate	0	0.00%	171	65.77%	**$\chi2$=76.14**
Moderate	76	29.23%	89	34.23%	**P=0.001***
Adequate	184	70.77%	0	0.00%	**(S)**
Total	260	100.00%	260	100.00%	

Considering in post-test among experimental group, none of them are having inadequate score 29.23% of them having Moderate score.70.77% of them are having Adequate attitude score, and in control group 65.77% of them are having inadequate score.34.23% are in moderate score and none of them had adequate score on breastfeeding practice.

Table -3 COMPARISON OF EXPERIMENT AND CONTROL GROUP MEAN PRACTICE   SCORE

| | Group | | | | Mean difference score | Student Independent t-test |
| | Experiment(n=260) | | Control(n=260) | | | |
	Mean	SD	Mean	SD		
Pre-test	23.35	5.44	23.15	4.24	0.20	t=0.47p=0.64(NS)
Post-test	32.57	5.31	23.62	4.16	8.95	**t=21.38 p=0.001***(S)**

In pre-test, experiment group postnatal mothers are having 23.35 practice score and control group postnatal mothers are having 23.15 practice score, so the difference is 0.20. This difference is small and it is not statistically significant.

In post-test, experiment group postnatal mothers are having 32.57 practice score and control group postnatal mothers are having 24.62 practice score, so the difference is 8.95. This difference is large and it is statistically significant.

Statistical significance difference between experiment and control group was calculated using student independent t-test

Table : 4 COMPARISON OF EXPERIMENT AND CONTROL GROUP MEAN EARLY BREAST-FEEDING CHECKLIST SCORE

| | Group | | | | Mean difference score | Student Independent t-test |
| | Experiment(n=52) | | Control(n=52) | | | |
	Mean	SD	Mean	SD		
Pre-test	46.79	18.67	45.77	15.08	1.02	t=0.68p=0.49(NS)
Post-test	74.69	14.04	46.42	15.46	28.27	**t=21.82 p=0.001***(S)**

In pre-test, experiment group postnatal mothers are having 46.79 score and control group postnatal mothers are having 45.77 score, so the difference is 1.02. In post-test, experiment group postnatal mothers are having 74.69 score and control group postnatal mothers are having 46.42 score, so the difference is 28.27. This difference is large and it is statistically significant.

Table 5: COMPARISON OF PRETEST AND POSTTEST MEAN PRACTICE   SCORE

Group	Assessment				Mean difference score	Student paired t-test
	Pre-test		Posttest			
	Mean	SD	Mean	SD		
Experiment(n=260)	23.35	5.44	32.57	5.31	9.22	**t=55.77 p=0.001***(S)**
Control(n=260)	23.15	4.24	23.62	4.16	0.47	t=1.81 p=0.07(NS)

Pre- and post-test breastfeeding practice scores are shown above.

Postnatal mothers in the experiment group had a pre-test practice score of 23.35 and a post-test practice score of 32.57, a 9.22 difference. Postnatal mothers in the control group had a pre-test practice score of 23.15 and a post-test practice score of 23.62, 0.47. Again, there is a statistically insignificant difference. The student paired t-test was used to compare the experimental and control groups.

Table :6 COMPARISON OF PRETEST AND POSTTEST MEAN EARLY BREAST-FEEDING CHECKLIST SCORE

Group	Assessment				Mean difference score	Student paired t-test
	Pretest		Posttest			
	Mean	SD	Mean	SD		
Experiment(n=52)	46.79	18.67	74.69	14.04	27.90	**t=26.49 p=0.001***(S)**
Control(n=52)	45.77	15.08	46.42	15.46	0.65	t=1.74 p=0.07(NS)

In experiment group , in pre-test, postnatal mothers are having 46.79 score and in post-test postnatal mothers are having 74.69 score, so the difference is 27.90.In control group , in pre-test, postnatal mothers are having 45.77 score and in post-test   postnatal mothers are having 46.42 score, so the difference is 0.65. This difference is small   and it is statistically not significant. Statistical significance difference between experiment and control group was calculated using student paired t-test

Table 7: EFFECTIVENESS OF SIM ON BREASTFEEDING INITIATIVE CARE

Group	Test	Maximum score	Mean score	Mean Difference of practice gain score with 95% Confidence interval	Percentage Difference of practice gain score with 95% Confidence interval

Experiment	Pretest	108	46.79	27.90(25.82 – 29.97)	25.83%(23.91% – 27.75%)
	Posttest	108	74.69		
Control	Pretest	108	45.77	0.65(-0.01 – 1.29)	0.60%(-0.01% – 1.19%)
	Posttest	108	46.42		

The experimental group gained a 25.83% checklist score, whereas the control group gained only a 0.60% checklist score. checklist score between the pre-test and the post-test score was calculated using and mean Difference with 95% CI and a proportion of 95%

DISCUSSION

In this study, the postnatal mothers are assessed with the breastfeeding practice checklist to assess the routine Practice of breast feeding in the early stages of postnatal mothers in 1hour after the delivery. During the breastfeeding process, many mothers' complained about the problems they encountered the problems they encountered.[14] The study scores of elder age mothers, rural and urban area postnatal mothers and previous breastfeeding experience mothers are having more effective breastfeeding practices score than others. Self instructional module on Breast feeding practice was given to them which is a compliance of the concept of breast feeding which consists of collective information of breastfeeding practices like Influential position, Breast assessment, breastmilk expression, nipple, Breast condition Breast comfort, using breast pump or hand expression, and Latching On information Nappy contents assessment, for effective breastfeeding practice. Among postnatal mothers in experimental group and control group comparison was identified. Association between post-test knowledge scores with selected socio demographic variables among postnatal mothers on breastfeeding practices was discussed. 83 percent of the participants in the current study reported that they had started breastfeeding early,[10] which is higher than the proportions reported by previous studies in the Kilimanjaro region. Women who started breastfeeding within an hour of giving birth increased from 70 percent in 2002–06 30 to 77 percent in 2010–11 31 as a result of advances in technology. Early initiation of breastfeeding was reported to be 51 percent prevalent nationwide in the Tanzania Demographic and Health Survey of 2015–16, with wide regional variations ranging from 26 percent in Simiyu region to 80 percent in Tanga region. According to the Tanzania Demographic and Health Survey (TDHS) of 2015/16, Kilimanjaro region had a prevalence of 74 percent.[13] Increasingly, it appears that women in the region are adopting positive practises, Those women with a lower number of children had a greater intention to breastfeed their children, while those with more children had a moderate understanding that the early initiation of breastfeeding is not very effective because of the physical condition of the mother in the postnatal period.[15] such as the early initiation of breastfeeding, over time. This study found a strong correlation between high levels of early breastfeeding and overall high levels of knowledge about colostrum and its importance (94.7 percent),

Effectiveness of Self instructional module on breastfeeding initiation care

The post-test level of effectiveness of breastfeeding checklist Explains that among experimental postnatal mothers with regard to age (65.59%) are between 18-23 years, and (73.75%) are

between 23-27 years, (79.10%)28-32 and are between 30-35 years. (80.00%). Among these women primi para are under the age group 18-23 years with ineffective knowledge and effective in posttest who belongs to rural population. Rural postnatal practice score percentage are less in pre test 15.45% 30-35 years. (55%) are multi para and with Previous breast-feeding experience shows significance in 64.59% than primi para mothers 35.41% Which shows (100%) have the family practice of breastfeeding.

Table-3 Among the postnatal mothers of experimental group mean of the pre-test score was Before SIM, 68.08 per cent of the Experiment group had Inadequate scores, 31.92 per cent had moderate scores, and none had adequate scores., After SIM, had an adequate level of the score of 70.77% per cent ,29.9% had a moderate level of score, and none of them had had an inadequate level of score. post-test 74.69,
Similarly, a study done in Debre Tabor, northwest Ethiopia indicates that the prevalence of early initiation of breastfeeding is 73.1% which is almost comparable to our finding.[12]The finding of our study reveals that the early initiation of breastfeeding was practiced by 74.6.9% of mothers (CI; 95c%).25.83% checklist score .This result is comparable to a study done in Mota which shows that the prevalence of early initiation of breastfeeding is 78.8%
respectively and standard deviation for pre-test is 18.67and post-test in 14.04and, paired t test 26.49. Whereas among control group the mean in the pre-test 46.79score was in post- test 74.69and. S.D pre-test 15.08 and post-test 15.46, paired t test 2.8. Therefore, it evident that the develop and implementation of Protocol by the investigator is effective in development of early breastfeeding and breastfeeding practices. So, there was a statistically significant difference between experimental and control group. Hence the null hypothesis stated by the investigator was rejected. Table-4 Comparison of the pre-test, post-test mean and standard deviation between experimental and control group. It is noted that mean and standard deviation pre-test post test score of breastfeeding practice in experimental and control group. In experimental group the mean for pre-test score was in pre-test, experiment group postnatal mothers are having 46.79 score and control group postnatal mothers are having 45.77 score, so the difference is 1.02. In post-test, experiment group postnatal mothers are having 74.69 score and control group postnatal mothers are having 46.42 score, so the difference is 28.27. This difference is large and it is statistically significant and tabulated value was 21.82 with 00.1. Therefore, the null hypothesis stated was rejected. In a study similar study conducted Only 11.4 percent of the 906 newborns who were studied were breastfed within the appropriate time frame, despite the fact that 91.9 percent of them were breastfed (8.1 percent had never been breastfed) (within 1 hour after birth).[1] The breastfeeding behaviours of the first three days, including the initiation of breastfeeding, frequency and duration of breastfeeding, formula supplementation, and infant sucking performance, were observed and recorded[16]. A baseline evaluation of the timing of the beginning of breastfeeding was carried out, and the factors that contributed to the delayed beginning of breastfeeding were investigated. The planning and execution of the interventions were completed. A baseline evaluation of the timing of the

beginning of breastfeeding was carried out, and the factors that contributed to the delayed beginning of breastfeeding were investigated[17].In our study, The breast feeding practice is there 100 % in all the family but the timing of initiation of breast milk practices where interfered with physical and surgical interventions ,cultural and familial practices . early initiation of breastfeeding was positively correlated with having a vaginal delivery among mothers. The type of pregnancy as well as the presence of professional guidance were found to be significant factors associated with the early initiation of breastfeeding.[18]In our study we found that 72.22% mothers underwent vaginal birth and good improvement in the checklist score. Mothers are educated about complete breast-feeding concept. A further increase in the percentage of infants who are breastfed within the first hour of life across the nation could be accomplished by encouraging mothers to breastfeed their babies early, particularly after caesarean sections. These interventions have the potential to increase the prevalence of early initiation of breastfeeding, which would help India reach the target for the neonatal mortality rate set by Sustainable Development Goal [19],

CONCLUSION

The majority of the mothers who participated in this study had positive attitudes toward breastfeeding in general, as well as the significance of breastfeeding, the practises of early initiation and exclusive breastfeeding, and their perceptions of breastfeeding. This study highlights the importance of breastfeeding intervention protocol, particularly those that are geared toward the mother during postnatal check-ups. The information that needs to be provided for the community as a whole concern the benefits of breastfeeding and the length of time that it should be practised.

Recommendations:

Despite all of the work that has been put into addressing this issue, the rates of beginning and maintaining BF in our nation are still well below the levels that would be ideal. According to the findings of our research, it is critical for mothers and the other members of their families to have an understanding of the significance and advantages of breastfeeding (BF). Therefore, efforts should be made to ensure that mothers have both professional and social support in order to prevent premature weaning from breast feeding.[20]

In order to ensure that all pregnant women receive breastfeeding counselling, community-based service delivery points for ANC, such as Village Health Nutrition Days (VHNDs), home visits made by ASHA/AWW, and facilities providing ANC should be utilised as an intervention. This will ensure that all pregnant women are aware of the importance of initiating breastfeeding at the appropriate time and the myriad of benefits that it provides. In addition, hospitals and homes that deliver babies should offer postnatal support to all new mothers as soon as possible after the delivery of their babies in order to facilitate the beginning of breastfeeding at an earlier age. Effective strategies for increasing early initiation of breastfeeding could include providing adequate training to healthcare providers and traditional birth attendants on postnatal breastfeeding support, including position, attachment, and management of breastfeeding complications. Last but

not least, early breastfeeding will be encouraged more in private health facilities if the IMS Act is strictly enforced there. It is impossible to overstate the importance of having a policy environment that is supportive in terms of protecting, promoting, and supporting breastfeeding practises. Advocacy for specific policies with a focus. In order to improve early initiation of breastfeeding and bring about a reduction in neonatal mortality, advocacy for specific policies with a focus and decisions are required. This will bring about the achievement of the Sustainable Development Goals.

References:
1. El-Gilany AH, Sarraf B, Al-Wehady A. Factors associated with timely initiation of breastfeeding in Al-Hassa province, Saudi Arabia. East Mediterr Heal J. 2012;18(3).
2. Kishore E, Junapudi SS. A study of breast feeding practices among mothers of infants in an urban slum, South Indian city, Nellore. Int J Contemp Pediatr. 2018;5(2):320.
3. Singh N, Chouhan Y, Trivedi A, Patel S, Sethia S. A study to evaluate breastfeeding practices among lactating mothers: a community based study in rural anganwadi centers in field practice area of government medical college, Jabalpur, Madhya Pradesh, India. Int J Community Med Public Heal. 2016;3(10):2786–93.
4. Bharani DA, Raipurkar DS, Garg DN. Knowledge and practices of breastfeeding among rural postnatal mothers in Central India. Pediatr Rev Int J Pediatr Res. 2017;4(10):596–602.
5. Sharma IK, Byrne A. Early initiation of breastfeeding: A systematic literature review of factors and barriers in South Asia. International Breastfeeding Journal. 2016.
6. Dudeja S, Sikka P, Jain K, Suri V, Kumar P. Improving First-hour Breastfeeding Initiation Rate After Cesarean Deliveries: A Quality Improvement Study. Indian Pediatr. 2018;55(9):761–4.
7. Sankar MJ, Sinha B, Chowdhury R, Bhandari N, Taneja S, Martines J, et al. Optimal breastfeeding practices and infant and child mortality: A systematic review and meta-analysis. Acta Paediatr Int J Paediatr. 2015;104:3–13.
8. Ambike D, Ambike A, Raje S, Chincholikar S. Knowledge, awareness and breast-feeding practices of postnatal mothers in a rural teaching hospital: a cross sectional survey. Int J Reprod Contraception, Obstet Gynecol. 2017;6(12):5429.
9. Laroia N, Sharma D. The religious and cultural bases for breastfeeding practices among the Hindus. Breastfeed Med. 2006;1(2):94–8.
10. Boakye-Yiadom AP, Nguah SB, Ameyaw E, Enimil A, Wobil PNL, Plange-Rhule G. Timing of initiation of breastfeeding and its determinants at a tertiary hospital in Ghana: a cross-sectional study. BMC Pregnancy Childbirth. BMC Pregnancy and Childbirth; 2021;21(1):1–9.
11. Agampodi TC, Dharmasoma NK, Koralagedara IS, Dissanayaka T, Warnasekara J, Agampodi SB, et al. Barriers for early initiation and exclusive breastfeeding up to six months in predominantly rural Sri Lanka: a need to strengthen policy implementation. Int

Breastfeed J. International Breastfeeding Journal; 2021;16(1):1–12.

12. Abie BM, Goshu YA. Early initiation of breastfeeding and colostrum feeding among mothers of children aged less than 24 months in Debre Tabor, northwest Ethiopia: A cross-sectional study [Internet]. BMC Res Notes [Internet]. BioMed Central; 2019;12(1):1–6. Available from: https://doi.org/10.1186/s13104-019-4094-6

13. Ali F, Mgongo M, Mamseri R, George JM, Mboya IB, Msuya SE. Prevalence of and factors associated with early initiation of breastfeeding among women with children aged < 24 months in Kilimanjaro region, northern Tanzania: A community-based cross-sectional study. Int Breastfeed J. International Breastfeeding Journal; 2020;15(1):1–10.

14. Motee A, Ramasawmy D, Pugo-Gunsam P, Jeewon R. An assessment of the breastfeeding practices and infant feeding pattern among mothers in mauritius. J Nutr Metab. 2013;2013.

15. Armugham I, Bhaumik A, Smitha PM, Gundluru A, Alex V, Abdullah BF, et al. Assess 3 I's (Instruction, Initiation, Improvement) as a Road Map to Breastfeeding Success among Postnatal Mothers at NMCH, Nellore, A.P, India. Malaysian J Med Heal Sci. 2022;18.

16. Zhang F, Cheng J, Yan S, Wu H, Bai T. Early Feeding Behaviors and Breastfeeding Outcomes after Cesarean Section. Breastfeed Med. 2019;14(5).

17. Kaur R, Kant S, Goel AD, Bhatia H, Murry L. A quality improvement intervention to improve early initiation of breastfeeding among newborns delivered at a secondary level hospital in northern India. Med J Armed Forces India. 2021;77(2):230–6.

18. Kassa BG. Early initiation of breastfeeding and its associated factors among mothers who delivered vaginally in south gondar zone hospitals, Northwest Ethiopia, 2020. Int J Womens Health. 2021;13.

19. Yadav J, Shekhar C, Bharati K. Variation and determinants of early initiation of breastfeeding in high and low neonatal mortality settings in India. J Biosoc Sci. 2021;

20. Yılmaz E, Doğa Öcal F, Vural Yılmaz Z, Ceyhan M, Fadıl Kara O, Küçüközkan T. Early initiation and exclusive breastfeeding: Factors influencing the attitudes of mothers who gave birth in a baby-friendly hospital. Turkish J Obstet Gynecol. 2017;14(1).

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.

Ph No: 0861-2317969 | Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
website: www.narayananursingcollege.com | | e-mail: narayana_nursing@yahoo.co.in

NARAYANA COLLEGE OF NURSING

CHINTHAREDDY PALEM, NELLORE

SPECIAL OLYMPICS BHARAT (75TH AMRIT MAHOSTAV)

CIRCULAR

REF NO: NCON/IQAC/03   **DATE: 31/03/2022**

This is bringing to your kind notice that is Narayana College of Nursing plan to conduct a program on **"SPECIAL OLYMPICS BHARAT"** (75TH AMRIT MAHOSTAV) at **Indian Red Cross Society** in Nellore on 07.04.2022 from 9-5 PM. The faculties and students are requested to register the program and make it grand success.

Principal

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

Copy to:

- IQAC Coordinator
- Dept HODs
- Class Coordinator
- Student Notice Board

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

NARAYANA COLLEGE OF NURSING

NARAYANA
COLLEGE OF NURSING

Chinthareddypalem, Nellore.

Special Olympics
Health Promotion

Special Olympics
Special Olympics
Bharat

आज़ादी का अमृत महोत्सव

World Health Day - 2022

Special Olympics
Healthy Athletes®

Date: 07. April. 2022 || Time: 09:00 am - 05:00 pm || Venue: Red Cross Society, Nellore.

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

NARAYANA COLLEGE OF NURSING
NELLORE
524 003

NARAYANA COLLEGE OF NURSING

Chinthareddypalem, Nellore - 524 003.

NARAYANA
COLLEGE OF NURSING

BROCHURE

SPECIAL OLYMPICS BHARAT

Special Olympics
Bharat

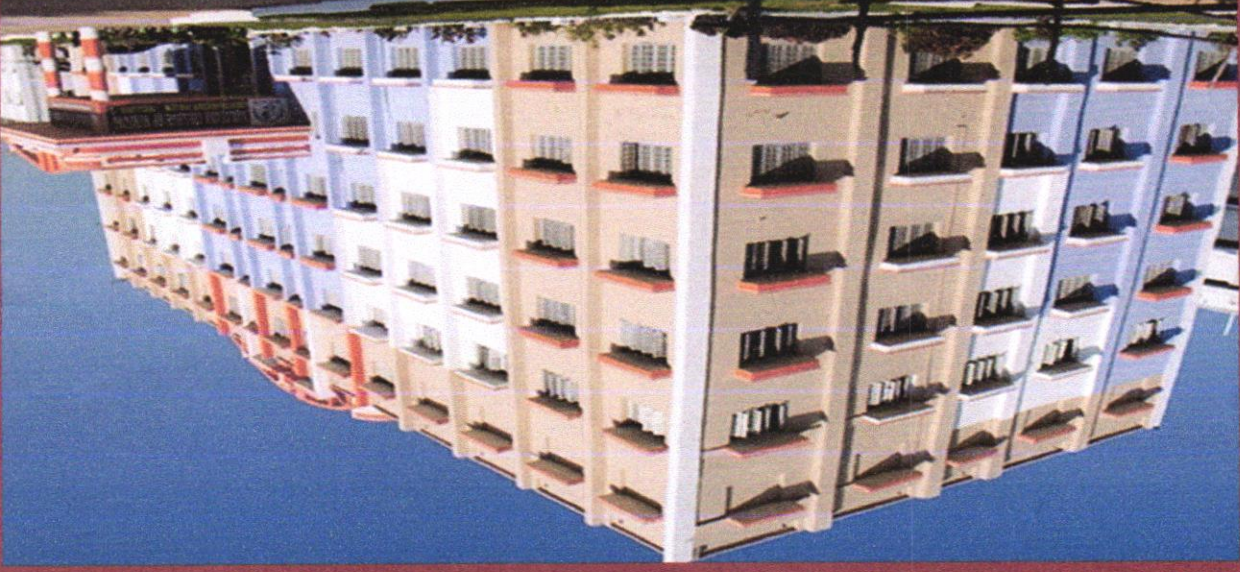75 आज़ादी का अमृत महोत्सव

Special Olympics
Health Promotion

Special Olympics
Healthy Athletes®

Date: 07-04-2022

Time: 09:00 am - 05:00 pm

Venue: Indian Red Cross Society, Nellore.

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

-: Agenda :-

Prayer Song

Welcome Song

Welcome Address

Lamp Lightening

Dignitaries Speech

Special Olympics Bharat For Athletes

Health Promotion activity

Certificate Distribution

Vote of Thanks

National Anthem

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.
Ph No: 0861-2317969 | Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
website: www.narayananursingcollege.com | | e-mail: narayana_nursing@yahoo.co.in

NARAYANA COLLEGE OF NURSING

CHINTHAREDDY PALEM, NELLORE

REPORT ON SPECIAL OLYMPICS BHARAT
(75TH AMRIT MAHOSTAV)

Special Olympics Bharat is an official recognized program of Special Olympics International which operates in India. It was founded in 1987 as Special Olympics India, and from 2001 it become as Special Olympics Bharat. It is recognized by the government of India as a National Sports Federation for the development of sports opportunity for the people intellectual disabilities. The SPECIAL OLYMPICS BHARAT Program has so far drawn in number of coaches to work with 850875 athletes across the country. Special Olympics Bharat is also registered under Indian Trust Act 1882 in 2001 and is accredited by Special Olympics International to conduct Special Olympics Programs in India. It is designated by the Government OF India as Nodal agency for all disabilities on account of National presence and experience, especially in rural areas which account for nearly 75 per cent of the disabled population in India.

The program started with the inauguration by Sri Chandrasekar Reddy Chairman of Indian Red Cross society along with his team members and Dr.Ajay principal of Narayana Dental College, Dr.Kannan, Incharge of SOB, Dr.Indhira.A Principal, Narayana College of Nursing, Dr. Tirupathi Principal of Narayana Physiotherapy College dignitaries lighten the lamp.

Narayana College of Nursing collaborated with Narayana Dental College and Narayana Physiotherapy College conducted the "Special Olympics Bharat "Program behalf of 75th Amrit Mahothsav on April 7th at Indian Red Cross Society in Nellore, Andhra Pradesh. Priorly our students registered as the program volunteers and health promotion for athletes. The registered students participated in various activities such as hand wash technique and Nutritional health education activities. Health promotion team members explained to the athlete's parents

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

Award: (Higher Education Review Top 10 Nursing College - 2020)
IAO (International Accrediation Organization (2020 - 2025))

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.
Ph No: 0861-2317969 | Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
website: www.narayananursingcollege.com | | e-mail: narayana_nursing@yahoo.co.in

regarding healthy nutritional diet pattern with live demonstration of displaying fruits and vegetables.

The registered athlete's attended the program through scanning of QR code and consumed the all benefits from special smiles team and health promotion. The health promotion team members and special smiles along with cooperation of Indian Red Cross Society team members make it grand success. The end with vote of thanks and followed by National Anthem.

Fig No 1: Ribbon cutting by Sri Chandrashekar Reddy, Chairman of IRS

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.

Ph No: 0861-2317969 | Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
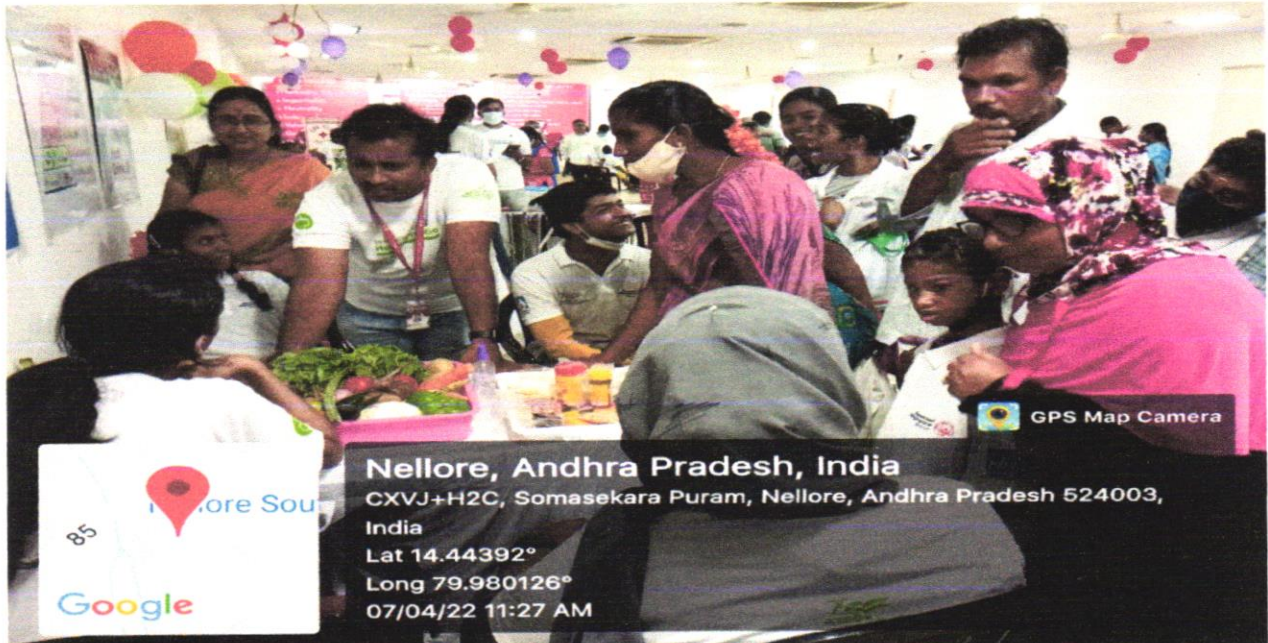website: www.narayananursingcollege.com || e-mail: narayana_nursing@yahoo.co.in

Nellore, Andhra Pradesh, India
CXVJ+H2C, Somasekara Puram, Nellore, Andhra Pradesh 524003, India
Lat 14.44392°
Long 79.980126°
07/04/22 11:27 AM

Fig No 2: Health Promotion team live demonstration on dietary menu to the athlete's parents.

Nellore, Andhra Pradesh, India
CXVJ+H2C, Somasekara Puram, Nellore, Andhra Pradesh 524003, India
Lat 14.443918°
Long 79.980126°
07/04/22 10:37 AM
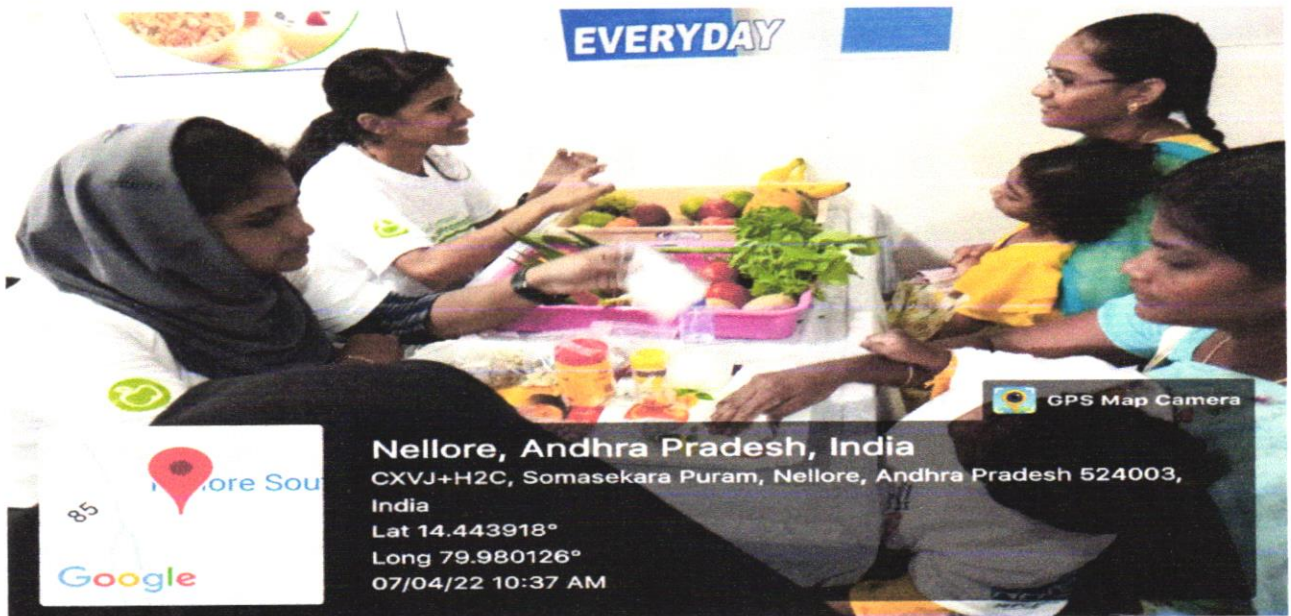
Fig No 3: Nutritional education to the athlete's parents.

Award: (Higher Education Review Top 10 Nursing College - 2020)
IAO (International Accrediation Organization (2020 - 2025))

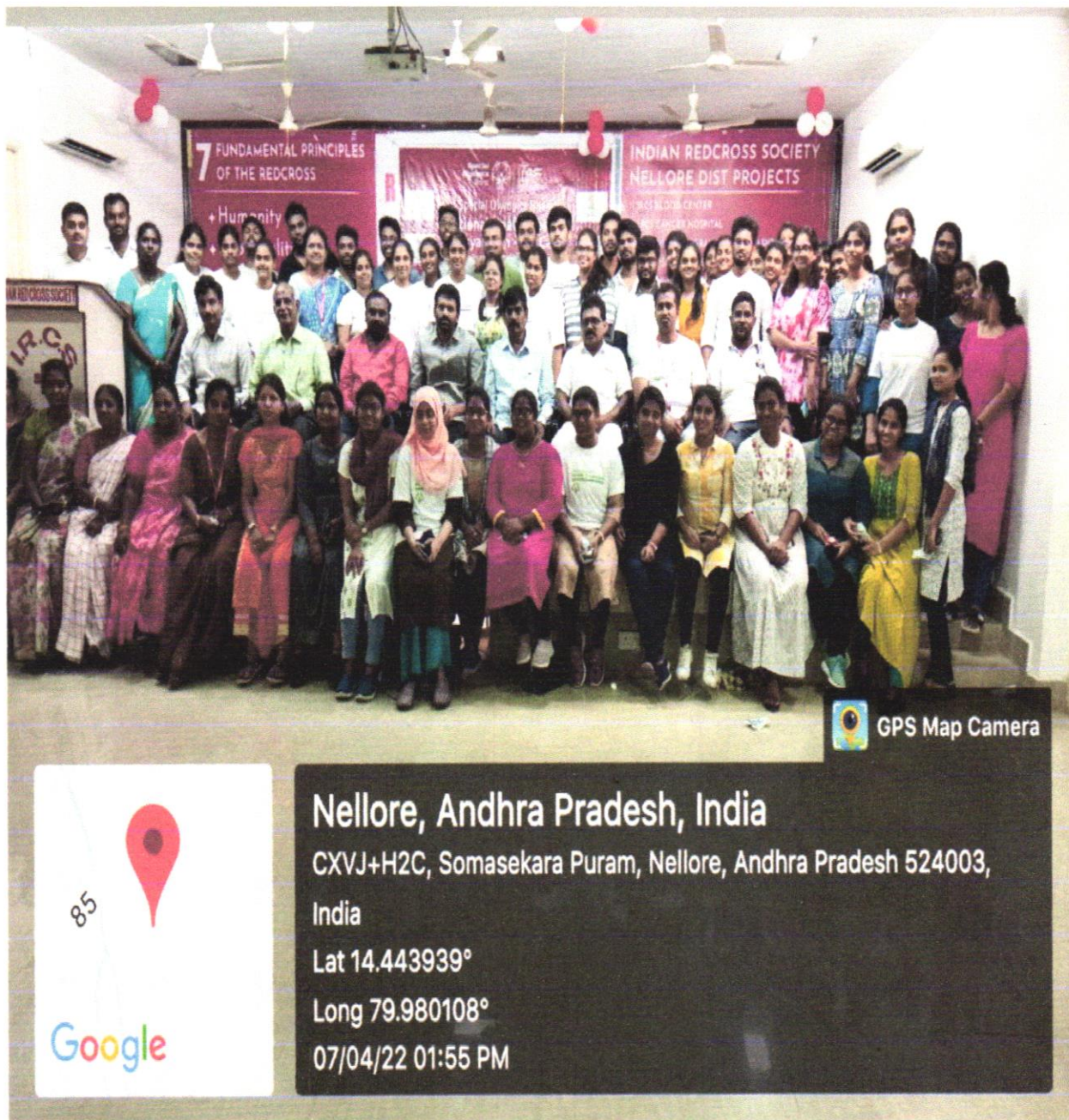**Fig No 4:Group photo with Red Cross Soceity Team Members**

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Award: (Higher Education Review Top 10 Nursing College - 2020)
IAO (International Accrediation Organization (2020 - 2025))

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.

Ph No: 0861-2317969| Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
website: www.narayananursingcollege.com || e-mail: narayana_nursing@yahoo.co.in

Fig No 5: Guinness World Records Certificate and Asia Book of Records
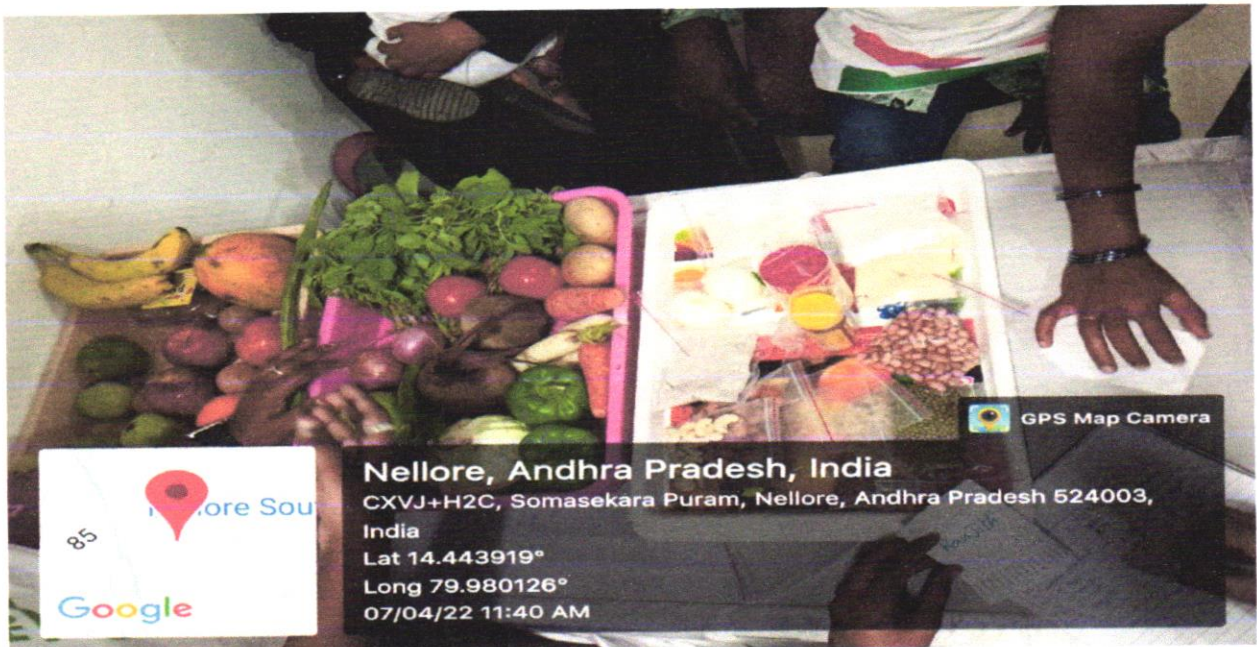

Fig No 6: Displayed Healthy fresh fruits and vegitables

Coordinator

Principal

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003
Award: (Higher Education Review Top 10 Nursing College - 2020)
IAO (International Accrediation Organization (2020 - 2025))

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

NARAYANA
COLLEGE OF NURSING
Chinthareddypalem, Nellore - 524003. A.P.
Ph No: 0861-2317969 | Fax: 0861-2311968.
Recognized by Indian Nursing Council and A.P. Nurses & Midwives Council
Affiliated to NTR University of Health Sciences, A.P. Vijayawada.
Accredited by "International Accreditation Organization (IAO)"
website: www.narayananursingcollege.com | | e-mail: narayana_nursing@yahoo.co.in

NARAYANA COLLEGE OF NURSING

CHINTHAREDDY PALEM, NELLORE

SPECIAL OLYMPICS BHARAT (75TH AMRIT MAHOSTAV)

STUDENTS ATTENDANCE

S.NO	NAME OF THE STUDENT	SIGNATURE
1.	ABHRAMI .R	
2.	AISWARYA VINOD	
3.	AKHILA BABY	
4.	ALEENA JOSEPH	
5.	ALEENA SHAJI	
6.	AIFA MATHEW	
7.	ANCYMOL WILSON	
8.	ANJU ANTONY	
9.	ANJU P	
10.	ANNMARIYA ROY	
11.	ANNA VARGHESE	
12.	ANNU ELSA THOMAS	
13.	ANUVINDA TN	
14.	APARNA BIJU	
15.	ASHLY SANTY	
16.	ASHLY TREESA PAUL	
17.	ATHULYA .R	
18.	SNEHA SAJU	
19.	CHINNU VARGHESE	
20.	FATHIMA HUSSIAN	

COORDINATOR

PRINCIPAL

B.
Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

Award: (Higher Education Review Top 10 Nursing College - 2020)

IAO (International Accreditation Organization (2020 - 2025))

Date: 7th April 2022   SPECIAL OLYMPICS BHARAT
75th Amrit Mahotsav   Time: 9AM to 5PM

Attendance

S No	Name of the Athlet	Age/Gender	Parent's Signature.
1.	Maha lakshmi	9yrs/F	P (ఈశ్వర్)
2.	Abdhul · S K	12y/M	Sk ఆరిఫా అలీ
3.	Mokshitha	4y/F	B subhani
4.	P. Jai surya	17/M	P. విశ్వనాథరెడ్డి
5.	Yogeshwari	8/F	V సత్యనారాయణ
6	K · Shobith kumar	19/M	K. A. Anjanyakumar
7	R · Shamily	21/F	R · విజయదాన.
8 ·	D · swathwy	11/M	D · Soujanya
9.	kathi Durga	15/F	K దుర్గేశ్వరి
10	Nimala pallavi	16/F	Pati
11.	Jishutha sri	11/F	Chakri
12.	Bushanth Joel	11/y	y. Sailaja
13	A rajesh	11/M	M. శ్రీనివాసులు
14.	B Premchand	6/M	B surya
15	Aashiya	17/F	Sk. రసూల్

B Ghuj
Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003

NARAYANA COLLEGE OF NURSING
NELLORE
524 003

Principal
NARAYANA COLLEGE OF NURSING
Chinthareddypalem,
NELLORE - 524 003.

16)	P. Nikilash	5Y/M	P. Poojitha
17)	k. Xthvik	6Y/M	K. Asha
18)	Esuf	17Y/M	G. పాలిల్ట్
19)	S K Athef	12/M	SK ర్బల్ల
20)	k. Vishnu	17/M	K బాబ్ద
21)	S penchala moshshna	8/M	M Jarin
22)	Lahu Sasilakshmu	23/F	తి, న వం
23)	Narasimha	12/M	యినిక
24)	Shaik safya	11/F	Skపుల
25)	Habeehunisa	12/F	అల్ప
26)	Veera Venketalakshmi	14/F	V. విసారయ
27)	P. Sucekha	23/F	Pav0ల
28)	P sumakali	20/F	Psu నయ్య
29)	Hadas Masthan	20/M	P N ల్బ్ల KO
80)	S K ayisha	10/F	Sk ఒంగ్
31)	Buvaneeth	10/M	Ram
32)	Thanyu J	16/F	G. Mamatha
33)	B Yaeshita	13/F	B. Swetha
84)	G mohan rao	20/M	G. బ్ ఒబ్ల
35)	S Danial	26/M	Mal
36)	m samuel poul	17/m	Nal
37	SK. Imran	14/m	Jmal
38	B. Sateesh	17/m	Jmal
39)	Danush	7/M	Ra
40)	Moheth	10/M	SK ఒంద్ర్ద్
41)	Sudheel	17/m	P ఉG5 ర్
42)	G Lakshmi	13/F	G. కొర్లిద
43)	k ashok kumar	13/m	K. ర్
44)	Geethan Sudarshan	14/m	E. ఒద్ర్350
45)	K penchala danush	12/M	k. Jyothi

46)	k Nivyak	16/M	K. విణ్ణ బ్రైజ్
47)	Y Mahash	15/m	K. chentd
48)	K Sohith	7/M	K.బైట్ల
49)	Nellore manikande		
50)	m Sachu	23/M	M.ఒఱజ్
51)	J madhu	14/m	J.ఒఱజ్ఱ.ఇ అల్
52)	Praneeth	12/m	S. ప్రైఠ్
53)	Ranjith	18/M	Rojith
54)	Lakshmi Rajeeve	14/F	·Baదుఱ
56)	S.Sharanya	17/F	S. Saranya
57)	Basantha kuma	13/m	Vasahth
58)	P heon	2½/m	P.Cithirja
59)	Vasiq	11y/M	SK ఫ్రైజ్
60)	Rayhru	11y/M	Md.Myesha
61)	Sai Vignesh	12y/M	ఇఱఱvani
62)	Suchaitha	15y/F	A. Sundu
63)	Y. Ayyappa Snuthosh	14y/M	మైల్
64)	K. Mannya.	9y/F	K.ంైఱ్
65)	K. Vishnu Vavdhu	7y/M	Kఱైఱ్
66)	Achithya Mounik	22/M	A Rojya Lakshi
67)	V Yamini	11/F	G. అ్రై
68)	Y Vinayu	14/M	Y. Subremayan
69)	Swarupa	14/F	E.ంైఱ్ ్రై9
70)	Rakub	14/M	r.Jyoṭi
71)	V Nagahaitha	16/F	V. అ్రై.
72)	Munnamma	24/F	Mఱ్రు
73)	Masthanaiab	8/M	Bఱ ఒ అల్
74)	I Shipa	21/F	I.S\Pa
75)	K Anitha	22/F	K.Anitha
76)	K. Mounika	21/F	kmouhika
78)	Abishek		B. Swan

79)	Diksha	9Y/F	V. Uamelui
80)	T. Challadu	22/M	T. du
81)	Naveen kumar	18/M	P. Arun
82)	M. Venkateswarlu	17/M	S. Syamala
83)	Krishna Vamsi	23/M	మంజరవ్లు
84)	Sivakeerthy	29/	
85)	S. Thanmai	16/F	S. వరదరాజ్
86)	Sravanthi	17/F	S. వరదరాజ్
87)	Vashitha	12/F	A
88)	Thejub	6Y/M	Deepika
89)	MD. Arfa	6Y/F	Reshma
90)	Shanthi	7/F	G. రీశ్వరి
91)	Banusree	8Y/F	B. Kamalathi
92)	Saithyaswani	14/F	V. Jmm
93)	B. Dayamma	10/F	G. విజయల
94)	S. k Rajavathy	13Y/M	Sumitha
95)	A. Mary	17Y/F	A. Mary
96)	Hansiya	8Y/F	SK. అబ్దుల్లా
97)	G. Akshayasree	8Y/F	G. ANURADHA
98)	Pavan	20Y/M	వరన్
99)	Dailal	18Y/M	MIQAINATH
100)	Bachninath	20Y/M	MIQAINAXY
101)	CH. Venkith	23Y/M	ch. Maheswari
102)	G. Mahitha	23Y/F	G. maruthideri
103)	Jessy	11Y/F	D. పంచర్
104)	Asrith Sai	13Y/M	V. Padmavathi
105)	Lochan yadav	16Y/M	Lochan yadav
106)	Mujitha	16Y/F	లా
107)	Krishnavedhy	3	8m