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Evaluating Health – Related Quality of Life: Insights from The Who – QOL BREF Questionnaire Among the General Population

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Abstract

This cross-sectional study explored the health-related quality of life (HRQOL) among 703 residents of Eraviperoor Grama Panchayat using the WHO-QOL BREF questionnaire. Participants, mainly aged 15 to 25, reported an average quality of life, with the physical health domain receiving the highest scores and the social relationships domain the lowest. The findings highlight that while physical well-being is relatively strong, many individuals face challenges in social support and interactions. Factors such as age, income, education, employment, lifestyle habits, and limited access to care were linked to lower QOL, especially among older adults. Notably, most participants initially lacked awareness of HRQOL, but the study process itself led to improved understanding. These results emphasize the importance of addressing social and psychological factors, alongside physical health, to enhance overall community well-being.

Keywords: Health – Related Quality of Life, Quality of Life , WHO- QOL BREF Questionnaire

INTRODUCTION

The concept of Health-Related Quality of Life (HRQOL), which reflects an integrated concept of well-being that includes not only the absence of sickness but also the existence of positive physical, mental, and social states, is becoming more and more acknowledged as an important metric in healthcare. [1], [2] According to the World Health Organization (WHO), quality of life (QOL) is a highly specific and dynamic concept that is influenced by a person's cultural background, value systems, personal objectives, expectations, and worries. [1] ,[3]. A person's overall assessment of the quality of their life is influenced by a variety of factors, including their physical and mental health, independence, social ties, personal views, and interactions with their surroundings. [1], [2], [4]

As life expectancy and the prevalence of chronic illnesses have increased globally, healthcare has undergone a paradigm change from just prolonging life to improving its quality. [3], HRQOL is becoming a crucial outcome measure for assessing how illnesses, therapies, and health policies affect people's everyday functioning and general well-being, a shift that is visible in both clinical and public health settings. [2], [3], HRQOL evaluations give vital information on how people perceive their health, allowing medical professionals to treat not just physical symptoms but also environmental, social, and psychological aspects that impact patient's life. [3],[4].

The importance of HRQOL becomes clearer when considering chronic illnesses, disabilities, and older adults, whose health problems often lead to limitations in day-to-day activities, reduced social

engagement, and deteriorated mental health [2], [4], [5]. Healthcare practitioners and policymakers can identify unmet needs, tailor interventions, and monitor therapy efficacy from the patient's perspective by systematically evaluating HRQOL [4], [5]. Additionally, HRQOL statistics are essential for directing health policy decisions, optimizing resource allocation, and developing community-based health programs that address the broader determinants of health [3], [5].

A commonly used and globally recognized instrument for assessing HRQOL in a variety of populations is the WHO-QOL BREF questionnaire. Physical health, psychological health, social relationships, and environmental health are its four key fields of assessment, each of which captures unique but related facets of quality of life.[1] ,[4],[6] By enabling meaningful comparisons across studies and groups, the use of such standardized questionnaires makes it easier to identify lifestyle and sociodemographic factors that affect HRQOL.[4], [5],[6] Using the WHO-QOL BREF to evaluate HRQOL will reveal discrepancies, offer insightful information about community well-being, and guide focused actions to enhance quality of life and health outcomes. [5], [6] .

Finally, there are several items that can be used to categorize health-related lifestyle issues;

1. Diet and BMI: The most significant lifestyle factor, diet, has a direct, positive relationship with health, as does body mass index (BMI). Poor diet and its consequences, such obesity, are the most common health problems in urban countries. One way to measure an unhealthy lifestyle is with BMI. Living in an urban area leads to nutritional problems, such as consuming unhealthy and quick food, which worsens cardiovascular problems.
2. Exercise: It is advised to treat general health issues as part of a healthy lifestyle. Regular exercise and a healthy diet are good for your health.
3. Sleep: Maintaining a healthy lifestyle requires getting adequate sleep. There are several detrimental impacts of sleep abnormalities on a person's psychology, finances, society, and health. Both physical and mental health are directly impacted by sleep, and lifestyle decisions can have an impact on the quality of sleep.[7]
4. Substance abuse: Addiction is seen as a negative lifestyle choice. Smoking and substance abuse can lead to a host of health problems, including cardiovascular disease, cancer, asthma, and brain damage.
5. Sexual behaviour: Sex relationship dysfunction affects most communities, and it has a huge effect on mental and physical health. One may contend that dysfunctional relationships can result in AIDS and other STDs as well as a variety of problems inside the family.
6. Medicine abuse. Self-medication, sharing, using drugs without a prescription, prescribing excessive amounts of drugs, prescribing large quantities of each drug, prescribing unnecessary drugs, writing prescriptions incorrectly, ignoring contradictory medications, and ignoring the negative effects of drugs are all examples of unhealthy medication-using behaviours.
7. Modern technologies: Modern technology makes life easier for humans. Misuse of technology can have negative consequences. Using a computer or other device after midnight, for example, may interfere with your sleep schedule and produce interruptions. Addiction to mobile phones is linked to depressive symptoms.
8. Recreation; Leisure time is one of the smallest aspects of lifestyle. Neglecting one's leisure time could have negative implications. When people participate in unhealthy hobbies and inadequate preparation, their health is at stake.

9. Education: Learning is a spiritual workout. The physical and mental health of an individual may be enhanced by incorporating study into their lifestyle. Those with dementia, such Alzheimer's disease, for example, are less educated.[8]

METHODOLOGY

A cross-sectional study was conducted at the Eraviperoor Grama Panchayat in the Pathanamthitta district of Kerala, India. From November 2023 to April 2024, the study period lasted for almost six months. Participants in the study were all those who satisfied the inclusion and exclusion criteria. The study population included both boys and girls who were older than fifteen. Seven hundred and three people made up the final sample. The study was initiated after obtaining the approval from Nazareth College of Pharmacy's Institutional Review Board.

Inclusion criteria:

Patient age above 15 years.

Exclusion criteria

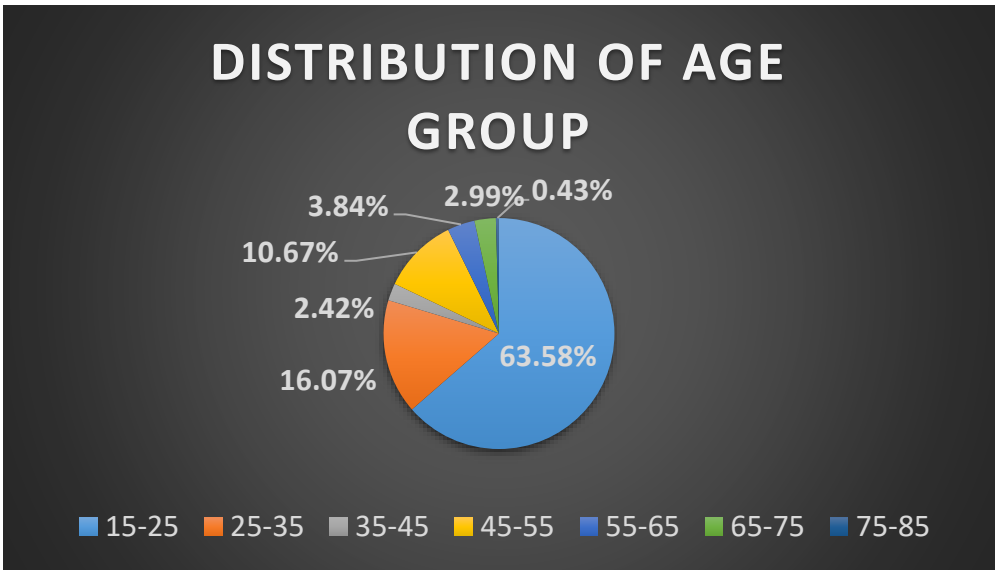
Individuals who were unwilling to give details. Individuals with cognitive impairments or dementia.

Data collection method

Data were collected by filling out pre designed data collection forms by making each individual's opinion and their consent with local language. Information was collected through direct, on-site interactions meetings with individuals after obtaining approval from the institutional review board from the Nazareth college of pharmacy. In our study procedure, Participants were first provided with the questionnaire which consist of whoqol – bref questions and after validating the quality of life of the participants we conducted awareness class regarding how to improve the quality of life. The data obtained were statistically analysed to determine the factors which affect the quality of life of general population. Statistical analysis The analysis was performed after entering the data in Microsoft excel – 2013 version, then the result obtained were analysed and represented with graphs and tabulations.

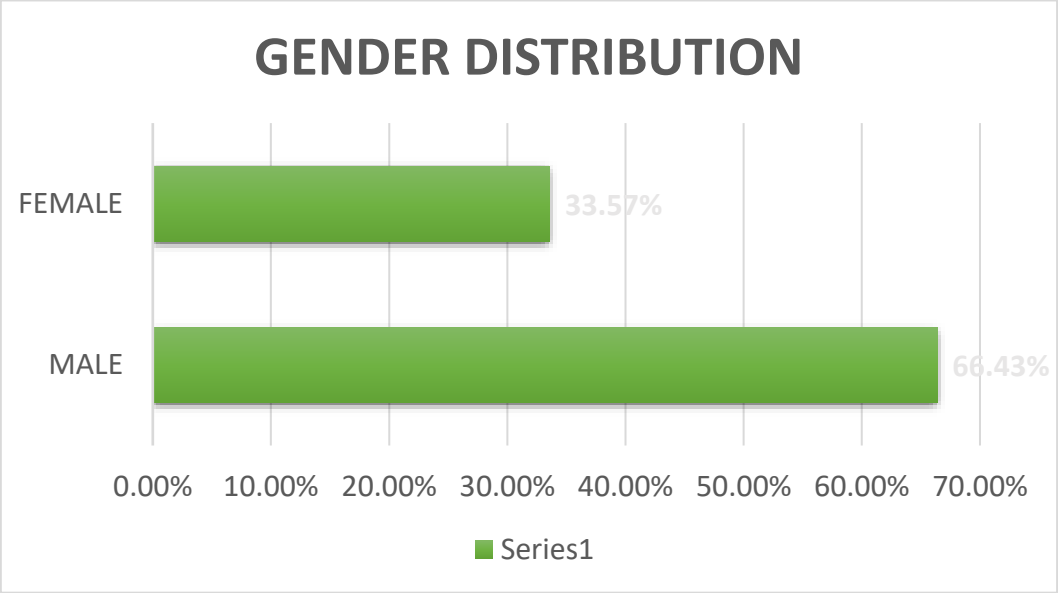
RESULTS

Distribution of Age Group



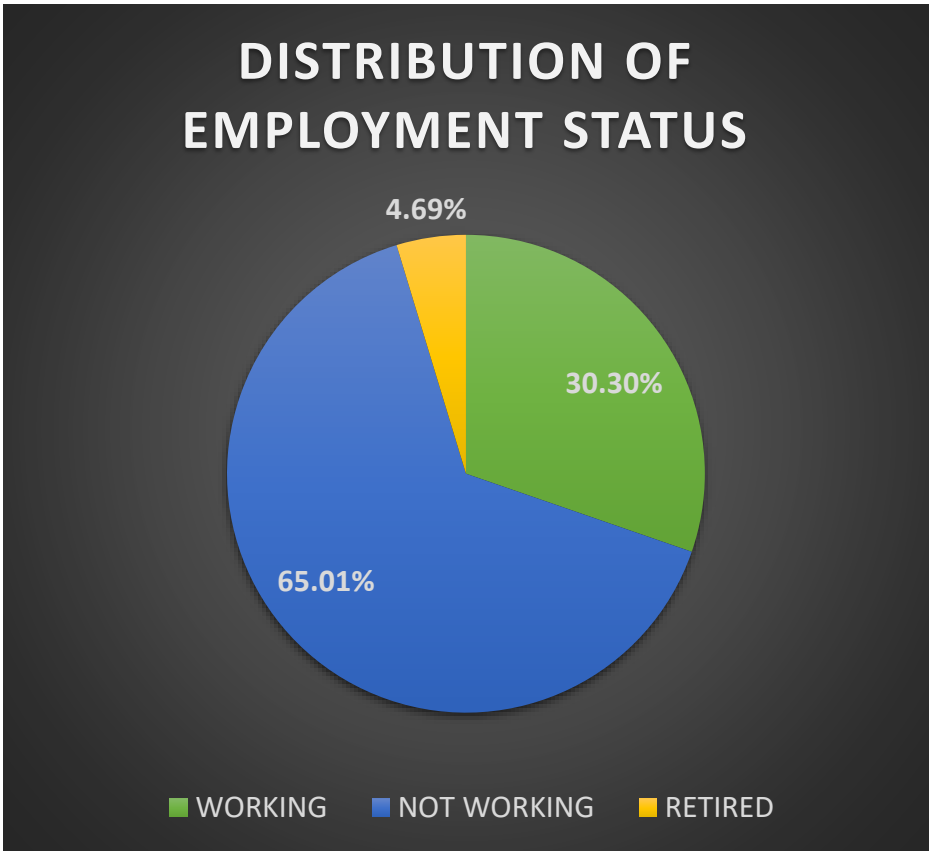
From the above graph among the 703 participants in the study, in the age group of 15-85 years , the participants belonging to the 15-25years of age had good QOL.

Distribution of Gender



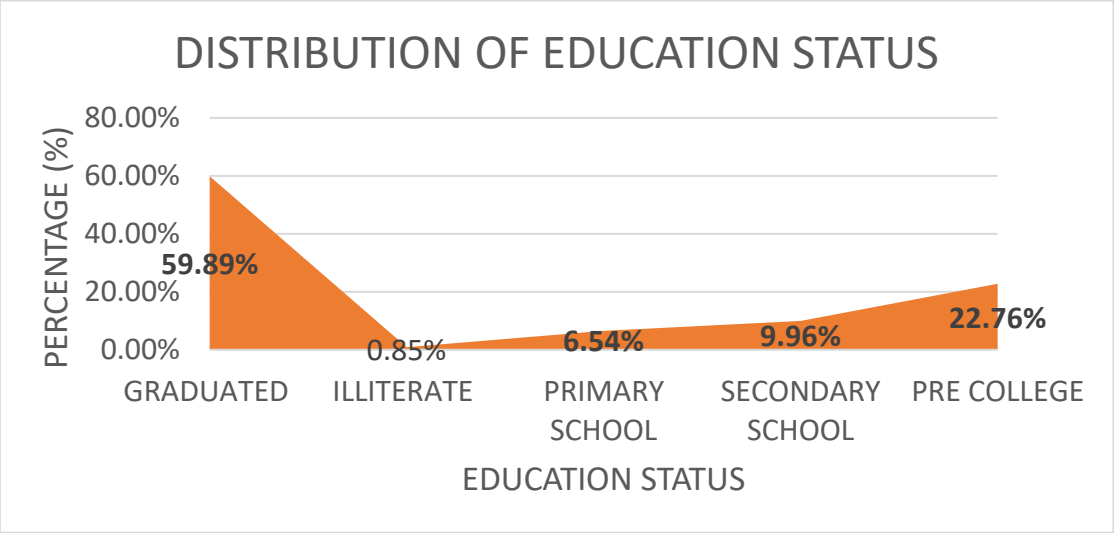
From the above graph among the 703 participants in the study, males(66.43%) have highest quality of life and (33.57%) females have lowest or poor quality of life

Distribution of Employment status



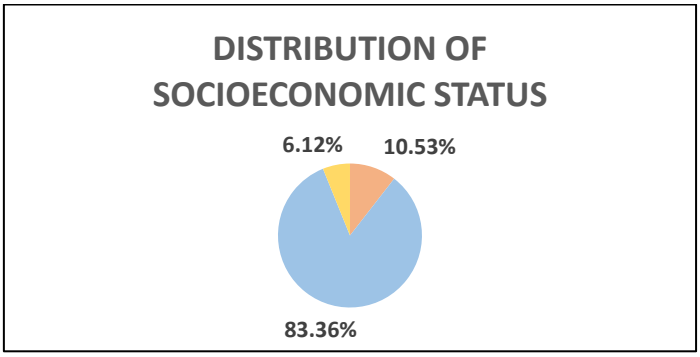
From the above graph among the 703 participants in the study, it is found that retired peoples have poor QOL.

Distribution of Education Status



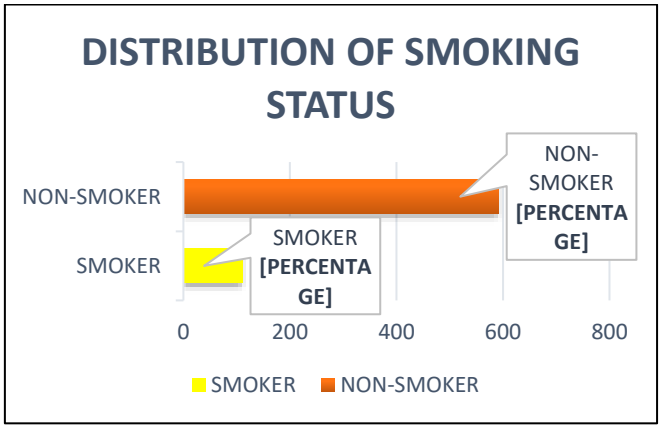
From the above graph among the 703 participants in the study, individuals who have education were higher than that of individuals who have no education.

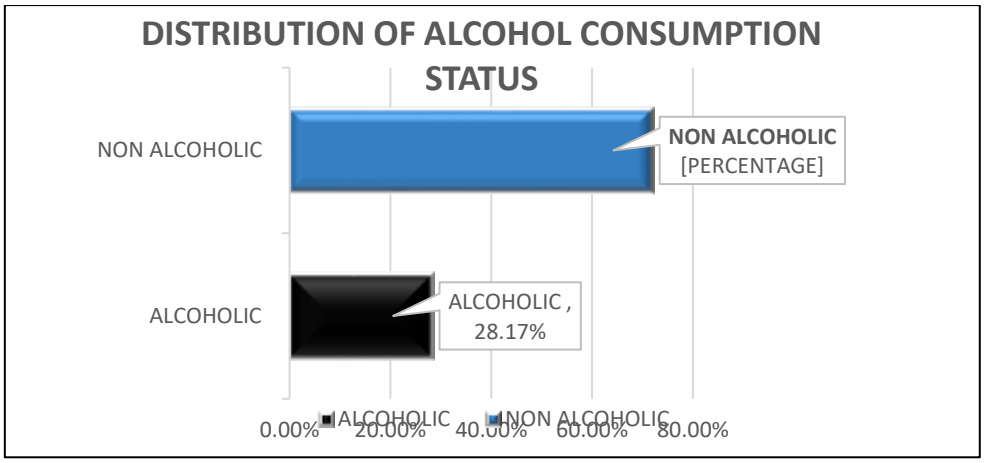
Distribution of Socioeconomic status



From the above graph among the 703 participants in the study, the highest socio economic status is for average and the lowest is for low socio economic status.

Distribution of Smoking Status and Alcohol Status





From the above graph among the 703 participants in the study, drinking rate of alcohol and smoking rate where taken and the drinking rate of alcohol is higher than that of smoking rate

ANALYSIS OF DIFFERENCES ACROSS HEALTH – RELATED QUALITY OF LIFE DOMAINS

PHYSICAL DOMAIN

	Not at all	A little	A moderate amount	Very much	Extreme amount	Total
Physical suffering and unpleasant sensations experienced by an individual	126	199	269	90	19	
Levels of vitality, stamina and tiredness affecting daily activities and overall well – being	24	74	283	264	58	
Medical treatment	251	205	142	70	35	
	Very dissatisfied	**Dissatisfied**	**Neither satisfied nor dissatisfied**	**Satisfied**	**Very satisfied**	63.83%
Well-being	12	55	207	371	58	
Sleep	23	101	158	314	107	
Productivity	17	60	214	357	55	
	Very poor	**Poor**	**Neither poor nor good**	**Good**	**Very good**	
Movement	13	56	190	396	48	

SOCIAL DOMAIN

	Personal relationships	Social support	Sexual activity	TOTAL
Unhappy / Discontent	13	22	58	
Unsatisfied / Displeased	32	52	49	
Neutral / Indifferent	132	184	157	59.85%
Content / Pleased	454	342	283	
Delighted	72	103	36	

From the above two tables among the 703 participants in the study, physical domain (63.83%) showed greater quality of life and social domain (61.55%) showed lower QOL.

DISCUSSION

In the study conducted among 703 participants, 63.58% belong to the age group 15-25 and only 0.43% belong to the age group 75-85. In this 467 participants were male (66.43%) and 236 participants were females (33.57%). Here 479 were single (68.14%), 2.7 were married (29.45%) were divorced (1.28%) and 8 were widowed (1.14%). Out of this 291 participants lived in urban area (41.39%) and 412 participants lived in rural area (58.61%). From our study it was found that out of 703 populations, 18.7% of subjects have poor quality of life.

In the study conducted by **Fahad Saqib.et al. (2019)** which was carried among 2063 participants (1058 male and 1005 female) in district Abbottabad, Pakistan, advanced age group was shown to have a negative correlation with QOL ratings (12.3%) which is comparable to our study where it was observed that since health related quality of life typically manifests senior citizens, many older adults struggle with their poor quality of life, it was found that the 703 study participants were separated into seven age groups, with the 75 -85 age group (0.43%) showing poor quality of life.

In the study conducted by **Gaurav Jyani.et al. (2022)** among 3548 adult respondents was conducted across five states of India, regarding the distribution of gender, were it showed that highest quality of life was observed in males (93.6%) and lowest or poor quality of life observed in females (48.8%) which is comparable to our study which showed that (66.43%)of males have highest quality of life and (33.57%) of females have lowest or poor quality of life due to the combination of several factors such hormonal fluctuations during menstrual cycles, pregnancy and menopause and social and emotional factors such as stress, anxiety, depression which are common among women, autoimmune diseases such as rheumatoid arthritis and lupus which are more prevalent in women.

In the study conducted by **Fahad Saqib.et al. (2019)** which was carried among 2063 participants (51.2 % male, 48.2% female) were included in 52 Union Councils of districts Abbottabad, Pakistan, regarding educational status, it was found that individuals who have education (31.8%)were higher than that of individuals who have no education (15.6%) which is comparable to our study where individuals who have education (59.89%) were higher than that of individuals who have no education (0.85%). HRQOL is closely linked to education status where educated individuals will be more aware about HRQOL than no educated individuals.

In the study conducted by **Fredrik Aberg et.al.(2007)** which was carried among 353 participants in Finland, regarding the distribution of employment status, it was found that individuals who retired due to age have poor quality of life(31%) which is comparable to our study where it is found that retired peoples have poor QOL(4.69%) due to several factors such as health decline, chronic illnesses, physical limitations and reduced social interaction and loneliness mental health, can lead to depression and anxiety. These factors can combine to negatively impact the overall quality of life for retired individuals.

In relation to socio economic status the study conducted by **Fahad saqib.et.al. (2019)** which was carried among 2063 participants (51.2 % male, 48.2% female) their data indicates as follows, high (33.3%), average (33.4%) and low (33.3%) and the highest socio economic status is for average and the lowest is for both high and low socio economic status which is comparable to our study where it indicates as follows, high (10.53%), average (83.63%) and low (6.12%) and the highest socio economic status is for average and the lowest is for low socio economic status. A decline in HRQOL is closely related to bad living habits and irregular lifestyle.

In the study conducted by **Jintao Qiu.et.al** on lifestyle and HRQOL carried among 15000 civil servants in china the total drinking rate of alcohol (62.52%) and smoking rate (34.27%) where found out, and it was observed that the drinking rate of alcohol of civil servants was higher than their smoking rate, which is comparable to our study about the drinking rate of alcohol (28.17%)and smoking rate (15.79%) where the drinking rate of alcohol is higher that smoking rate. Personal habits will have an impact on the HRQOL.

In the study conducted by **Carlos K. H. Wong.et al. (2021)** which was carried among 7555 participants, children and adolescents of age 6 to 17 years were included in the study to find out who had higher screen time ; over half of the study participants were female and it was concluded that females (55.5%) showed higher screen time than males(44.9%) which is comparable in our study where the age group of 15-25years were included in the study and the usage of screen time was found to be higher in females (62.6%) than males (37.3%) from both these results it was observed that females showed higher screen time than males .Use of screen based media devices was associated with a lower HRQOL, suggesting that maintaining healthy sleep habits and reducing screen time is very important.

In the study conducted by **Jianfen Zhang.et al. (2021)** which was implemented among 159 participants (80 males and 76 females) in China, the TWI was found to be higher in females (5.4%) and lower in males (4.3%) and thus females have better water intake patterns than males which is comparable to our study where the females (97.2%) showed higher water consumption than males (89%). Young adults with optimal hydration status had better water intake pattern and less concentrated urine.

In the study conducted by **Harshal T Pandve.et al. 2013** a total of 70 families were selected for the study regarding the family type status and health insurance and it was shown that 46 (65.71%) were joint families and the remaining 24 (34.28%) were nuclear families indicating that joint family type is higher than nuclear family type which is contrast to our study were it is shown that nuclear family type (76.1%) is higher than joint family type (23.90%). In today's scenario, the most commonly depicted and explored family type is the nuclear family. Based on the health insurance in their study it was shown that families who have health insurance (15.71%) were lower than families who do not have health insurance (84.29%) which is contrast to our study where families who have health insurance (58.89%) were higher than families who do not have health insurance (41.11%). The four domains recognised by WHO include physical domain, psychological domain, social domain and environmental domain.

In the study conducted by **Fiona y. Wong.et al. (2018)** it was found that 317 residents participate in this study. Residents in this study exhibited a relatively greater quality of life (QOL) in the physical domain

(70.83%) and a lower QOL in the environmental domain (61.98%), out of the four QOL categories. This is comparable to our study where it was found out that physical domain (63.83%) showed greater quality of life and environmental domain (61.55%) showed lower QOL. The above observations indicate that the physical domain had higher QOL and environmental domain had lower QOL out of the four domains.
Patient leaflets provided better awareness to the individuals, and the population demonstrated increased awareness regarding the HRQoL. The awareness provided include ways to improve physical health, mental health, social health and environmental health.

CONCLSION

A person's or a group's perceived physical and mental health over time is what the Centers for Disease Control refer to as HRQOL. Since health is a complex concept, the HRQOL takes into account all facets of social, emotional, mental, and physical functioning. The focus of health-related quality of life (HRQOL) is on how a person's health condition influences their QOL. Poor QOL was caused by a number of lifestyle problems, including inactivity, poor nutrition, sleep deprivation, sexual behavior, substance addiction, and pharmaceutical abuse. A cross-sectional study, was thus done to assess the prevalence, awareness, and HRQOL of individuals. It was discovered that, since health related quality of life typically
manifests senior citizens, many older adults struggle with their poor quality of life. Smoking and alcohol, reduced water intake, poor accessibility to health and social care, lack of transportation and reduced financial resources all contributed to poor QOL. It was discovered that study participants with co-morbidities and old age had poor quality of life. With QOL evaluation, patients' health and the quality of care they receive will both improve. However, the researchers must be careful in choosing the appropriate QoL measure to fulfill the needs of the study group.

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