Relationship Between Drinking Water And Sanitation Facilities On Quality Of Life

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ARTICLE INFO	ABSTRACT
	Water is connected to every form of life on earth. As a criterion, an adequate, reliable, clean, accessible, acceptable and safe drinking water supply has to be available for various users. The United Nation (UN) and other countries declared access to safe drinking water as a fundamental human right, and an essential step towards improving living standards. Especially in developing countries, the problem of adequate drinking water supply is an ever growing one. Public health programmes have been established to improve the population's health conditions. Hypothesis of the study is there is no significant relationship between sanitation facilities, gender difference and drinking water facilities on quality of life. When computed data the result says that there is a significant relationship between Accessibility of Drinking water facility and quality of life. It shows Access to clean drinking water constitutes a fundamental need for everyone, irrespective of status, circumstances. **Key words:** Quality of life, drinking water, sanitation and facilities.

INTRODUCTION

Access to basic amenities such as safe drinking water and sanitation is not only an important measure of socio-economic status of the household, but also a fundamental element to the Quality life of the people. Inadequate and poor quality of drinking water Fecilities not only resulted in General health and Life of People, but also augments health costs, low worker productivity and Education in General enrolment (Haq, 2007)

Water supply and sanitation facilities are essential for human development. They result in various health and nutritional benefits which in turn have a positive impact on People with their Specialities. Bartram and Cairn cross (2010) found that adequate sanitation and safe drinking water could avoid 2.4 million deaths (4.2% of all deaths) every year globally.

People from developing countries account for the majority of these deaths mainly due to diarrhoea and subsequent malnutrition. The key to controlling diarrhoea deaths is to focus on three interdependent core issues: water, sanitation and hygiene (WASH). WASH is one of the strategic programmes of the United Nations Children's Fund (UNICEF) to achieve 'sustainable water, sanitation services, and the promotion of hygiene, with a focus on reducing inequalities especially for the most vulnerable Population' (UNICEF, 2016).

In India, groundwater from over 30 million access points supplies drinking water to 85% of the rural and 48% of the urban population, thus making it indispensable to maintain groundwater quality. Water is vital for the proper normal functioning of our body. One of the most significant measures of a nation's socio-economic progress is the quality of its population. Long with the need for shelter and other various amenities in the micro-environment of housing, such as the type of dwelling unit, drinking water, sanitation, and hygiene, play a crucial role in the population's health and overall quality of life.

The WHO defines quality of life as an individual purpose-aligned cultural and value system by which a person lives, relative to their aims, hopes, living standards and interests. This is a detailed concept which incorporates individuals' physical and psychological health, their degree of independence, their social liaisons and how they relate to their surroundings.

Quality of life has been defined as 'the status of objective conditions/status of living of the families and the villages'. It is not a static phenomenon as it depends on the location, status of development, etc. Some other definitions of Quality of Life are also available around the globe. It is also defined as a measure of fulfilment of emotional, mental and physical needs of the society/family. The Quality of Life is thus a term which indicates the overall characteristics of the socio-economic environment in an area. In many instances structural approaches (including indices) have been used to describe The Quality of Life. It is a powerful tool for community development planning which can be used to monitor key indicators that encompass the social, health, environmental and economic dimensions of the community.

India is the world's second most populous country, accounting for 17.76% of the world's population. Out of its total population, around 91 million people do not have access to clean water sources, and more than 746 million people still lack access to safely managed household sanitation facilities (Water.org,2023). The poor water and sanitation in India have serious health implications, resulting in cholera, dysentery, and typhoid diseases.

The Swachh Bharat Abhiyan (Clean India Mission), launched in 2014, aims to eliminate open defecation and promote cleanliness and hygiene. The programme has led to the construction of millions of toilets in rural areas and reduced open defecation. Despite India being declared Open Defecation Free in 2019, the NFHS Report 2019–2021 showed that 19% of households do not use any toilet facility and still defecate in the open. (Maiti S. A., 2023).

LITERATURE REVIEW

Several studies have highlighted the determinants of households' choice of drinking water and sanitation. Abubakar (2019) demonstrated that gender and education of household head, household wealth, place of residence, geopolitical zone, access to electricity, water collection time, and number of rooms in the house are positively significant predictors of access to drinking water. Similar findings were reported by Mulenga *et al.* (2017) (Bwalya, 2017) who used data collected from a survey of 5,558 households from the 2013/2014 Zambia Demographic and Household Sanitation dataset. They discovered that household wealth, gender, region, and locality of residence were major determinants of better water and sanitation. Using a large survey dataset of 11,619 households in Ghana, Adams *et al.* (2016) revealed that urban areas have better access to safe drinking water and sanitation. Supporting this study, (Angoua ELE, 2018) found that rural households with lower incomes and lower levels of education were less likely to access improved water and sanitation facilities.

Method
To study the Impact of drinking water and sanitation on quality of life among people living in H D Kote taluk, Mysore district.

Objectives
1. To study the Relationship between Drinking water facilities on quality of life
2. To study the Relationship between Sanitation facilities on quality of life
3. To study the gender differences with regard to quality of life.

Hypothesis
1. There is no significant relationship between Drinking water facilities on quality of life.
2. There is no significant relationship between sanitation facilities on quality of life.
3. There is no significant gender difference regard to quality of life.

DATA COLLECTION

Total 130 Participants were drawn from various gramapanchayath of H.D kote taluk, for the study following the random sampling method and survey method using Self Report questionnaires was used to collect the data, from H D kote taluk, belong to 26 grama panchayat were participated in the study. Equal number of male (n=75) and female (n=75) participants participated in the study.

A self-report questionnaire was administered to the participants to collect data on the following components such as socio demographic information along with accessibility of drinking water and sanitation facility and quality of life scale is also given to collect the data from people living in region of various grama panchayth of H D kote taluk, Mysore.

MEASURES
1. **Socio-demographic datasheet:** A sociodemographic datasheet developed by the researcher has been used to collect the sociodemographic data of the participants which has included details such as name, age, gender, education, domicile, and socioeconomic status.

2. **The SENS WASH questionnaire** developed by UNHCR was used to collect the data regarding availability of drinking water facility and sanitation facility. The questionnaire was consisting of 10 questions. The higher the score better the drinking water and sanitation facility.
3. **Quality of life Scale:** The QOLS is a 16-item, domain-specific instrument adapted by Burckhardt et al. The questionnaire was developed empirically in the US by asking people about their quality of life. It explores factors such as physical and material wellbeing, personal development, relationships with others, participation in social, community and civic activities. The scale is scored by adding up the items to obtain a total score. The higher the score, the better the quality of life.

PROCEDURE
Participants were drawn for the study following the randomized sampling method and survey method using self-report questionnaires were used to collect the data. Data was collected from the participants in a small group of 5 participants in individual groups, in the first phase administering Socio-demographic datasheet with measures of drinking water and sanitation facility. And in the second phase of data collection quality of life scale was given to participants and asked them to give their responses honestly and informed that the information given by respondents will be used only for the research purpose and will be kept confidential.

STATISTICAL ANALYSIS
Data analysis was carried out using SPSS 28.0., Pearson's correlation was applied to analyse the correlation between Drinking water and sanitation facility with quality of life and t-test was applied to test the gender differences in quality of life.,

RESULT AND DISCUSSION

A finding of the present study has been reported following the statistical analysis of the data collected.

Table-1: Shows the Pearson's correlation results of Drinking water facility and Quality of life.

Correlations			
		Drinking water facility	Quality of Life
Drinking water facility	Pearson Correlation	1	.877**
	Sig. (2-tailed)		.000
	N	130	130
**. Correlation is significant at the 0.01 level (2-tailed).			

Table-1: Indicates the results of Pearson product moment correlation between Drinking water facility and Quality of life scores. A correlation coefficient of .000 was observed between Drinking water facility and Quality of life scores [P=.877]. with the 0.01 significant level Drinking water facility is correlated with Quality of life.

Table-2: Shows the Pearson's correlation results of Sanitation facility and Quality of life.

Correlations			
		Quality of Life	Sanitation facility score
Quality of Life	Pearson Correlation	1	.837**
	Sig. (2-tailed)		.000
	N	130	130
**. Correlation is significant at the 0.01 level (2-tailed).			

Table-2: Indicates the results of Pearson product moment correlation between sanitation facility and Quality of life scores. A correlation coefficient of .000 was observed between Drinking water facility and Quality of life scores [P=.837]. with the 0.01 significant level sanitation facility is correlated with Quality of life.

Table-3: Shows the t-test results of Gender difference in Quality of life.

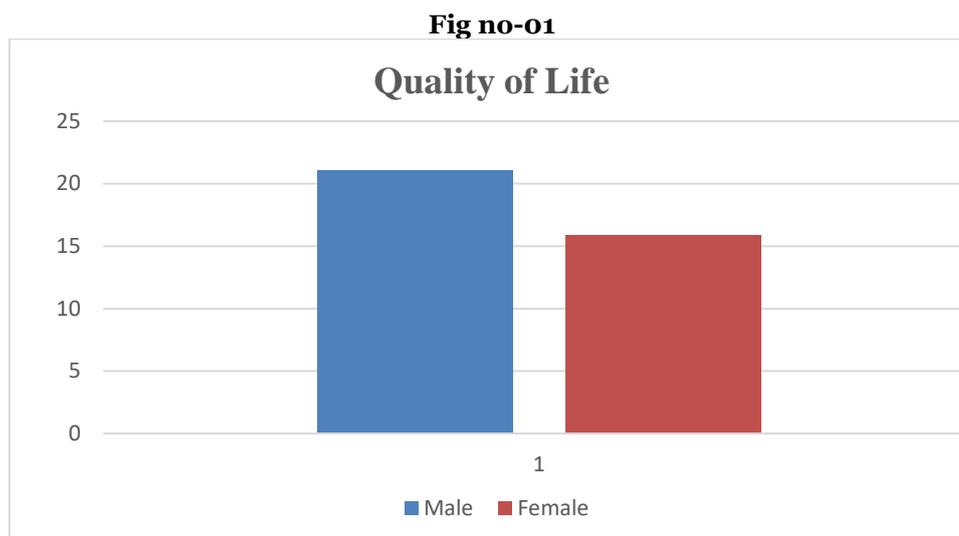| Group Statistics								
	Gender	N	Mean	Std. Deviation	Std. Error Mean	T	df	Sig. (2-tailed)
Quality of Life	Male	65	21.07	6.602	.807	4.624	128	.000
	Female	65	15.89	6.157	.776	4.634	127.992	.000

Fig no-01

Table-3: Indicates the results of t-test Results reveals significant gender differences in quality of life, A significant difference existed between male and female in their levels of total quality of life scores of males is (t=4.624;P=.000). scores of females are (t=4.634;P=.000). From the mean scores of male is 21.07 and the mean score of female is 15.89, it is clear that the male has higher levels of Quality of life scores compared to female.

DISCUSSION

Aim of the present study was to find is there any correlation between Drinking water facility and sanitation facility with Quality of life, Present part of the study continuous with the discussion following hypothesis of the present study.

Hypothesis-1
There is no significant Relationship between Drinking water Facilities on quality of life
Study results have revealed that significant positive correlation between Drinking water facility and quality of life. Thus, the study null hypothesis is rejected, in the previous studies also shows that Access to fresh, clean water, being intrinsically tied to both individual well-being and communal prosperity, should be recognized as a basic human entitlement, as its availability is pivotal to the quality of life. So, there is a significant relationship between accessibility of Drinking water facility with quality of water.

Hypothesis-2
There is no significant Relationship between Sanitation Facility on quality of life
Study results have revealed that significant positive correlation between Sanitation facility and quality of life. Thus, the study null hypothesis is rejected, in the previous studies also shows that Sanitation also affects these broader aspects of health. A systematic review of the relationship between sanitation and mental well-being identified privacy and safety as root dimensions, predominantly based on qualitative studies (Sclar et al., 2018). Aspects underlying these dimensions were identified as shame, anxiety, fear, assault, dignity and embarrassment. Beyond mental well-being, cleanliness and convenience are also commonly reported as important by users (Novotný et al., 2018). Hence, there is a significant relationship between availability of Sanitation facility with quality of water.

Hypothesis-3
There is no significant gender difference regard to quality of life.
Study results have revealed that significant gender differences in quality of life at 0.00 levels. This result also supported by the previous studies which has indicated that In rural areas, where obtaining water remains an difficult routine, it is predominantly the women and girls who shoulder the burden of collecting water based on gender and age in rural areas of various countries where at least 1 in 10 households have to go out of their homes to get water. Most of this responsibility disproportionately impacts females and young women.
The study shown that there is significant a gender difference in Quality of life, the formulated null hypothesis for the present study is rejected.

Limitations

Sample size of the study (N=130) which was a small sample size larger sample size would have been helped in more generalizing the study results and the present study is limited to Various Grama panchayath of H.D

kote taluk Mysore, if it compared with other district or Comparative studies done with other states will be more effective.

Conclusions

Quality of life is a very major aspect of which is need to be taken care for sustaining drinking water facility, sanitation and other basic needs of the human in society. Psychological resilience enables the individual to successfully adapt to severe adversity over the life course and have weaker association with the mental health and there are few gender differences in maintaining mental health need to be addressed effectively.

The present study ensuring a high quality of life is crucial for maintaining essential services like drinking water, sanitation, and other basic human needs. Psychological resilience allows individuals to adapt successfully to severe adversity throughout their lives, though its impact on mental health varies, with notable gender differences that require attention.

Our study highlights a significant link between the accessibility of drinking water and quality of life. Access to clean drinking water is a universal necessity, essential for health and livelihood regardless of one's status or circumstances. Additionally, the study underscores the vital role of sanitation facilities in enhancing quality of life. Aspects such as privacy and safety in sanitation are critical to users in various settings and significantly influence their well-being.

Moreover, the research reveals a significant gender disparity in quality of life, indicating that females often face a disadvantage, resulting in a poorer overall quality of life. Addressing these issues is essential for fostering a society where everyone can thrive. there is a significant relationship between Accessibility of Drinking water facility and quality of life. It shows Access to clean drinking water constitutes a fundamental need for everyone, irrespective of status, circumstances.

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