



“A STUDY TO ASSESS EFFECTIVENESS OF INFORMATION BOOKLET ON KNOWLEDGE REGARDING CAUSES AND PREVENTION OF CHIKUNGUNYA AMONG COMMUNITY PEOPLE AGED GROUP 40 TO 60 YEARS IN SELECTED RURAL AREA. A QUASI-EXPERIMENTAL STUDY”.

Nursing

Ms. Pradnya Urade	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Deepanjali Raut	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Prachi Gavhale	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Mayuri Lonare	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Samiksha Gaikwad	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Shradhha Bhangе	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Rutuja Wadaskar	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Megha Janbandhu	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Pragati Meshram	Students Of Post Basic B.Sc. Nursing Academic Year 2023 - 2025 At Maharshi Karve Stree Shikshan Samstha, Sitabai Nargundkar College Of Nursing For Women, Nagpur, India.
Ms. Rama Danapure	Guide Associate Professor, MKSSS Sitabai Nargundkar College Of Nursing For Women
Ms. Payal O. Tembhurne	Co-Guide Lecturer, MKSSS Sitabai Nargundkar College Of Nursing For Women

ABSTRACT

Background Of The Study: Chikungunya is endemic in many parts of India, with varying case numbers across states. In 2020, over 40,000 cases were clinically suspected, and a 2017 serosurvey showed 18% exposure in 15 states. According to the NCVBDC, India reported 192,343 cases in 2024, with major outbreaks in Karnataka: 69,492 cases, Maharashtra: 48,458 cases, Gujarat: 23,941 cases, Telangana: 12,869 cases. **Objective Of The Study: Primary Objective:** 1. To assess the knowledge regarding Chikungunya among community people aged group 40 – 60 years in selected rural area. **Secondary Objective:** 1. To evaluate the effectiveness of information booklet by comparing pre-test and post-test knowledge score. 2. To determine the association between knowledge level of community people and selected demographic variable. **Material And Method:** The study was conducted in rural area. Quantitative research approach was used in this study. A purposive sampling technique was used to collect 80 sample. **Result:** It was statistically interpreted that Informational booklet about knowledge regarding causes and prevention of chikungunya among community people aged group 40 to 60 years in selected rural area was effective. **Conclusion:** The study has conducted with the help of need of study, background of study. 80 samples were taken for the study. Demographic variables were planned for collection of data and a purposive sampling technique were used. Data was analyzed and finding revealed with the structured knowledge questionnaire and informational booklet were used for health education.

KEYWORDS**INTRODUCTION**

Chikungunya fever (CF) is a viral illness caused by an arbovirus transmitted by the Aedes mosquitoes. The virus is spread between people by two types of mosquitos: Aedes albopictus and Aedes aegypti, which mainly bite during the day. The virus may circulate within a number of animals, including birds and rodents. The risk of death is around 1 in 1,000. The very young, old, and those with other health problems are at risk of more severe disease.

The best means of prevention are overall mosquito control and the avoidance of bites in areas where the disease is common. This may be

partly achieved by decreasing mosquitoes' access to water, as well as the use of insect repellent and mosquito nets. Chikungunya vaccines have been approved for use in the United States and in the European Union.

Background Of The Study

Chikungunya, caused by the chikungunya virus and transmitted by Aedes mosquitoes, leads to symptoms such as severe joint pain, fever, and rash. Understanding the disease's pathophysiology through research helps scientists explore why certain populations are more vulnerable and how the virus affects the body. The global scenario of

chikungunya is quite alarming, with outbreaks reported in over 100 countries across Africa, the Americas, Asia, Europe, and Pacific Oceans. According to recent study, between 2011 and 2020, there were approximately 18.7 million reported cases of chikungunya worldwide, resulting in 1.95 million disability adjusted life years (DALYs). According to the National Centre for Vector Borne Diseases control (NCVBD), the country reported a total of 192,343 chikungunya cases in 2024 with 12,587. Karnataka Reported 69,492 confirmed cases in 2024, Maharashtra Reported 48,458 confirmed cases in 2024, Gujarat Reported 23,941 confirmed cases in 2024, Telangana Reported 12,869 confirmed cases in 2024.

Need Of The Study

Chikungunya has been a significant public health concern in Nagpur, particularly in small villages. The outbreaks have been reported in Maharashtra, including Barsi, Sholapur district in 1973 more recently chikungunya cases have been reported in Nagpur with symptoms including severe joint pain, fever and fatigue.

In August 2024, Nagpur declared a public health emergency due to surge in chikungunya. During this time, the city reported 54 new cases of chikungunya and 15 instances of dengue within just eight days.

The lack of proper sanitation / storage techniques in combination with the warmer temperature results in an increase in the numbers of the vectors. Without, proper controlling of the breeding ground and the factors associated with it, the number of cases is bound to rise. The storage of water in container and utensils left uncovered increase the surface area for atmospheric exposure. Chikungunya has affected 500 people in Nagpur division by the end August, with 386 cases reported in Nagpur city alone.

Objective Of The Study

Primary Objective

1. To assess the knowledge regarding Chikungunya among community people aged group 40 – 60 years in selected rural area.

Secondary Objective

1. To evaluate the effectiveness of information booklet by comparing pre-test and post-test knowledge score.
2. To determine the association between knowledge level of community people and selected demographic variable.

Assumptions

1. Participants have limited prior knowledge about chikungunya, its causes, and prevention methods.
2. An informational booklet is an effective tool for delivering health education to rural populations.
3. The participants in the age group of 40 to 60 years are capable of understanding and interpreting the content of the booklet.

Hypothesis

H0 (Null Hypothesis): There is no significant difference between the pre-test and post-test knowledge level of community people age group 40 to 60 years regarding chikungunya before and after the effectiveness of the informational booklet.

H1 (Alternative Hypothesis): There is a significant improvement between pre-test and post-test knowledge level of community people age group 40 to 60 years regarding chikungunya after the effectiveness of the informational booklet.

Limitations

1. The study is limited to 40 – 60 years of group.
2. The study is limited to the rural area.
3. The study is limited to the 80 samples.
4. The study period is limited to 18 months.

Inclusion Criteria

1. Study Subjects present at the time of data collection. (Age 40 to 60 yrs.)
2. Those who are willing to participate in the study.
3. Those who can read and write Marathi or English

Exclusion Criteria

1. Individuals below 40 years or above 60 years of age.
2. Individuals who are unable to read or understand the language in which the informational booklet is written.

3. Individuals who are unwilling to participate or do not provide informed consent.

Review Of Literature

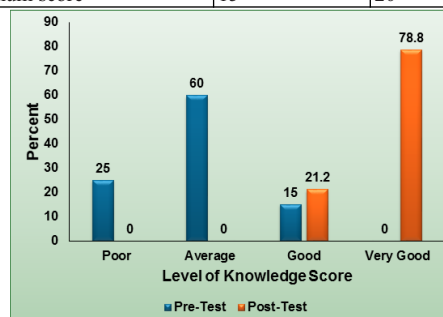
1. Review of literature related to chikungunya.
2. Review of literature related to knowledge regarding Chikungunya among community people aged group 40 – 60 years.
3. Review of literature related to effectiveness of information booklet on Chikungunya

RESULT

1. **Section A:** Distribution of subjects in relation to their demographic variables.
2. **Section B:** Assessment of pre-test and post-test knowledge regarding causes and prevention of chikungunya among community people aged group 40 to 60 years in selected rural area.
3. **Section C:** Analysis of effectiveness of Informational booklet on knowledge regarding causes and prevention of chikungunya among community people aged group 40 to 60 years in selected rural area.
4. **Section D:** Association of pre-test knowledge score regarding causes and prevention of chikungunya among community people aged group 40 to 60 years in selected rural area with selected demographic variables.

Assessment with level of knowledge score

Level of knowledge score	Score Range	Percentage score	Pre-test Knowledge Score		Post-test Knowledge Score	
			Frequency (f)	Percentage (%)	Frequency (f)	Percentage (%)
Poor	0-5	0-25%	20	25	00	00
Average	6-10	26-50%	48	60	00	00
Good	11-15	51-75%	12	15	17	21.2
Very Good	16-20	76-80%	00	00	63	78.8
Mean $\pm$ SD knowledge score			7.40 $\pm$ 3.153		16.93 $\pm$ 1.799	
Mean % knowledge score			37%		84.6%	
Minimum score			01		13	
Maximum score			15		20	



Significance of difference between knowledge scores in pre-test and post-test. (n=80)

Overall	Mean	SD	Mean Difference	t-value	p-value
Pre-Test	7.40	3.153	9.53 ± 4.161	20.473	0.0001 S.P<0.05
Post-Test	16.93	1.799			
P<0.05 level *significant					

Thus, H1 is accepted and H0 is rejected.

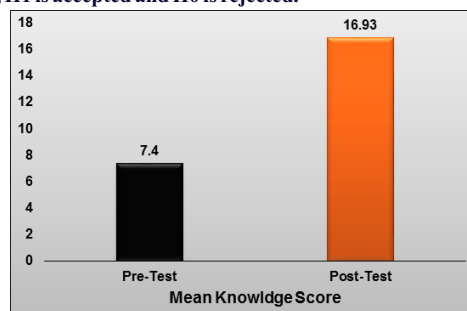


Figure: Significance of difference between knowledge scores in pre-test and post-test.

DISCUSSION

The present study was undertaken as, “A study to assess effectiveness of Informational booklet on knowledge regarding causes and prevention of chikungunya among community people aged group 40 to 60 years in selected rural area. The main objective of conducting this study is To assess the knowledge regarding Chikungunya among community people aged group 40 – 60 years in selected rural area, To evaluate the effectiveness of information booklet by comparing pre-test and post-test knowledge score and To determine the association between knowledge level of community people and selected demographic variable. In Pre-Test, Majority 60% of subjects had average level of knowledge score, 25% had poor level of knowledge score, 15% had good level of knowledge score and 0% had very good level of knowledge score. Mean knowledge score in pre-test of the subjects was 7.40 ± 3.153 . While in Post-Test, Majority 78.8% of subjects had very good level of knowledge score, 21.2% had good level of knowledge score and 0% had poor and average level of knowledge score. Mean knowledge score in post-test of the subjects was 16.93 ± 1.799 .

CONCLUSION

The study conclude that the information booklet was found to be effective in significantly improving the knowledge of community people (aged 40–60 years) regarding the causes and prevention of chikungunya. The mean knowledge score increased from 7.40 (pre-test) to 16.93 (post-test). The difference was statistically significant, with a t-value of 20.473 and p-value < 0.0001 , indicating the booklet had a strong positive impact. Consequently, the null hypothesis (H0) was rejected, and the alternative hypothesis (H1) was accepted.

Additionally, the study found that occupation, education, and type of sanitary facility had a significant association with the participants' pre-test knowledge levels, while age, gender, income, and history of chikungunya did not show significant association.

Recommendations

1. Formal education programmes should be conducted in all Primary health canter, Sub centres, Anganwadi, etc. regarding chikungunya
2. The study can be replicated on large subjects and on various settings, so that finding can be generalized to a large population
3. Such study can be carried out using teaching strategies like video assisted teaching, computer-assisted instruction on chikungunya.

Compliance With Ethical Standards

1. Permission will be obtained from institutional ethics committee.
2. Prior permission is to be taken from principle of college.
3. Prior permission is to be taken from Gram panchayat.
4. Written inform consent from subject will be obtained.

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