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A STUDY TO ASSESS THE EFFECT OF HEALTH TEACHING ON KNOWLEDGE REGARDING ROUTINE MEDICAL CHECKUP AMONG ADULTS IN SELECTED RURAL AREA

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ABSTRACT

Background: Lack of awareness regarding routine medical checkups is a significant public health concern, especially among adults in rural areas. Regular medical checkups help in early detection, prevention, and management of various diseases.

Objectives: This study aimed to assess the effect of health teaching on knowledge regarding routine medical checkups among adults in rural areas. The objectives were to identify the existing level of knowledge, evaluate the effectiveness of health teaching, and determine the association between knowledge and selected demographic variables.

Method: A quantitative research approach with a pre-experimental one-group pre-test and post-test design was adopted. The study was conducted among 200 adults in a selected rural area using a non-probability convenience sampling technique. The target population included adults aged 36–64 years. Data were collected using a structured questionnaire consisting of demographic variables and questions related to routine medical checkups. A pilot study was conducted on 20 samples to ensure feasibility and reliability of the tool.

Result: The pre-test findings revealed that 44.50% of adults had poor knowledge, 54% had average knowledge, and only 1.50% had good knowledge regarding routine medical checkups. Following the health teaching intervention, the post-test results showed a significant improvement, with 56.50% of adults attaining good knowledge and 43.50% achieving excellent knowledge. The mean knowledge score increased from 6.05 (±2.04) in the pre-test to 15.05 (±1.83) in the post-test. The paired t-test indicated a statistically significant difference ($t = 44.78$, $p < 0.05$), confirming the effectiveness of the health teaching program. No significant association was found between pre-test knowledge scores and selected demographic variables.

Conclusion: The study concludes that health teaching is highly effective in improving knowledge regarding routine medical checkups among adults in rural areas. Regular health education programs should be implemented to enhance awareness and promote preventive healthcare practices.

Keywords: Assess, Effect, Health Teaching, Routine Medical Checkup, Adults, Rural Area.

INTRODUCTION

Routine medical check-up (RMC), also known as periodic medical check-up (PMC) or routine medical examination, is an essential component of preventive healthcare. It refers to the regular assessment of apparently healthy individuals through systematic history taking, physical examination, and necessary laboratory investigations in order to detect diseases at an early stage before symptoms appear [1,2].

Preventive healthcare focuses on maintaining health and preventing illness rather than treating diseases after they develop. Early diagnosis through routine checkups helps reduce complications, disability, and mortality associated with chronic illnesses. Globally, non-communicable diseases (NCDs) such as hypertension, diabetes mellitus, cardiovascular diseases, cancer, chronic respiratory diseases, and kidney disorders are major causes of morbidity and mortality. According to the World Health Organization, noncommunicable diseases account for a significant proportion of global deaths, particularly in low- and middle-income countries.[3]

The increasing prevalence of chronic diseases has created a heavy burden on individuals, families, communities, and healthcare systems. Many of these diseases develop silently over time and may remain undetected until serious complications occur. Routine medical checkups provide an opportunity for early detection and timely intervention, thereby improving treatment outcomes and quality of life. Routine medical examinations usually include general physical assessment, measurement of blood pressure, blood sugar testing, body mass index calculation, lipid profile testing, and other relevant screening procedures depending on age and risk factors [1].

These screenings help in identifying risk factors such as obesity, hyperglycemia, hyperlipidemia, and elevated blood pressure. Early management of these risk factors can prevent progression to severe health conditions. Therefore, routine checkups serve as a cornerstone of primary and secondary prevention. Despite the recognized importance of routine medical checkups, their utilization remains low in many developing countries. In several African and Asian settings, healthcare services are often sought only during illness or for preemployment requirements rather than for preventive purposes [4].

This gap between knowledge and practice highlights the need for effective interventions to improve preventive health behaviors. In /rural areas, the situation is even more challenging. Adults residing in rural communities often face barriers such as low educational levels, limited access to healthcare facilities, financial constraints, lack of transportation, cultural beliefs, and poor health

literacy. These factors contribute to reduced utilization of preventive health services. Rural populations may also have limited exposure to health information and awareness programs. As a result, many individuals remain unaware of the importance of routine medical checkups and the recommended frequency of screenings. Adults form a significant and productive segment of the population. Maintaining good health among adults is essential for family stability, economic productivity, and community development. However, due to busy lifestyles, financial limitations, and lack of awareness, many adults neglect preventive healthcare practices. Chronic diseases that develop during adulthood can significantly affect quality of life and productivity. Regular medical checkups enable early identification of health problems, reduce complications, and promote healthy living. Health teaching is one of the most effective strategies used in nursing practice to improve knowledge and influence health-related behaviors. It involves structured and planned educational interventions aimed at increasing awareness, correcting misconceptions, and motivating individuals to adopt healthy practices. Educational programs conducted by healthcare professionals can enhance understanding about the benefits of routine medical checkups and encourage timely screening [5].

Nurses play a crucial role in community health promotion and disease prevention. As frontline healthcare providers, nurses are responsible for organizing health education programs, conducting community outreach activities, and motivating individuals to participate in preventive healthcare services. In rural settings, community health nurses can act as change agents by providing structured health teaching sessions regarding routine medical checkups. Through effective communication and culturally appropriate education, nurses can empower adults to take responsibility for their health. Although several studies have assessed knowledge and practice regarding routine medical checkups among healthcare workers and urban populations limited research has focused on evaluating the effectiveness of health teaching interventions among adults in rural areas. There is a need to determine whether structured health education can significantly improve knowledge regarding routine medical checkups among rural adults. Improving knowledge through health teaching may lead to better utilization of routine medical checkups, early detection of diseases, and overall improvement in health outcomes. [6]

Problem statement

A study to assess the effect of health teaching on knowledge regarding routine medical checkup among adults in selected rural area.

Objectives of the study

- To identify the level of knowledge regarding routine medical checkups among adults in selected rural area.
- To evaluate the effect of health teaching on knowledge regarding routine medical checkups among adults in selected rural area.

- To find association between the pre-test knowledge score with selected demographic variable.

Hypothesis

- H_0: There will be no significant difference between pre-test and post-test knowledge scores regarding routine medical checkup among adults in selected rural area.
- H_1: There will be a significant difference between pre-test and post-test knowledge scores regarding routine medical checkup among adults in selected rural area.

Ethical aspects

Permission is taken from the institutional ethical committee. Privacy, confidentiality, and anonymity of participants strictly maintained throughout the study. The study involves only health teaching and questionnaires, ensuring no physical or psychological harm to the participants.

Research methodology

Research approach: Quantitative research approach.

Research design: Pre-experimental one group pretest and posttest.

Variables

Independent Variable: Structured teaching program.

Dependent Variable: Knowledge level about routine medical checkup.

SAMPLE SIZE: The sample size for this study is 200 Samples.

SAMPLING TECHNIQUE: Purposive convenient sampling.

INCLUSION CRITERIA

- Adults who are 36 to 64 years in the rural area.
- Adults who are willing to participate and provide informed consent.
- Adults who are able to understand Marathi and Hindi language.

EXCLUSION CRITERIA

- Adults who are below the 36 years.
- Adults who are not willing to participate.

METHODS FOR DATA COLLECTION

A pilot study is a smaller version of a larger study that is conducted to prepare for that study. The function of the study is to obtain information formal permission was obtained from Nagar parishad Alandi. Objectives of the study were discussed and consent for participation in the study was obtained for participants. The investigator assured the subjects about the confidentiality of the data. The investigators administered the questionnaire on the printer form. Data was collected to fulfil the objectives of the study and data was collected on the google questionnaire form.

RESULT:

SECTION I: DISTRIBUTION OF ADULTS WITH REGARDS TO DEMOGRAPHIC CHARACTERISTICS

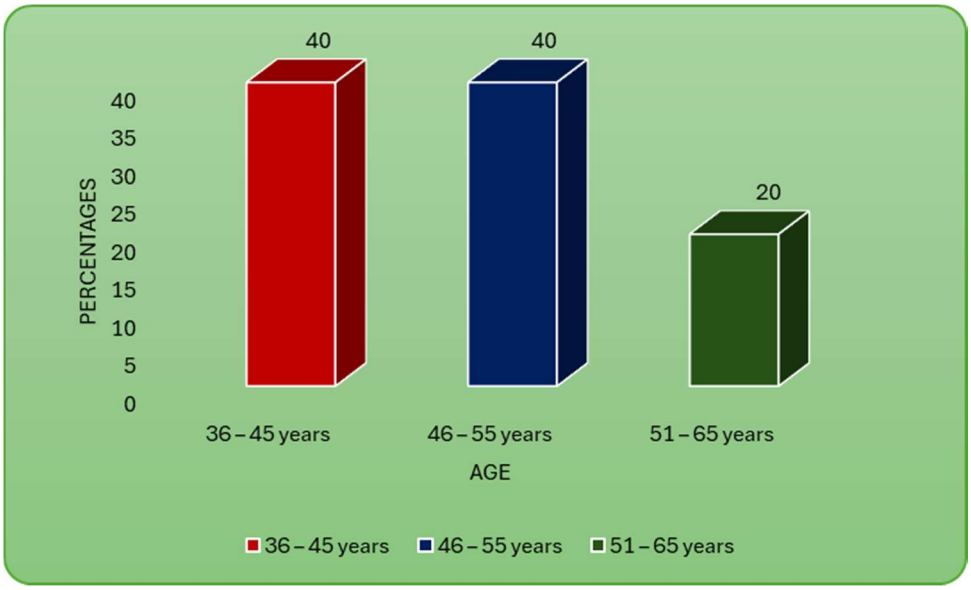

Figure 1: Distribution of Adults with regards to age

The above Figure 1 shows that the distribution of adults according to their age shows that 40 % of the adults were in the age group of 36 – 45 years and 46 – 55 years respectively.

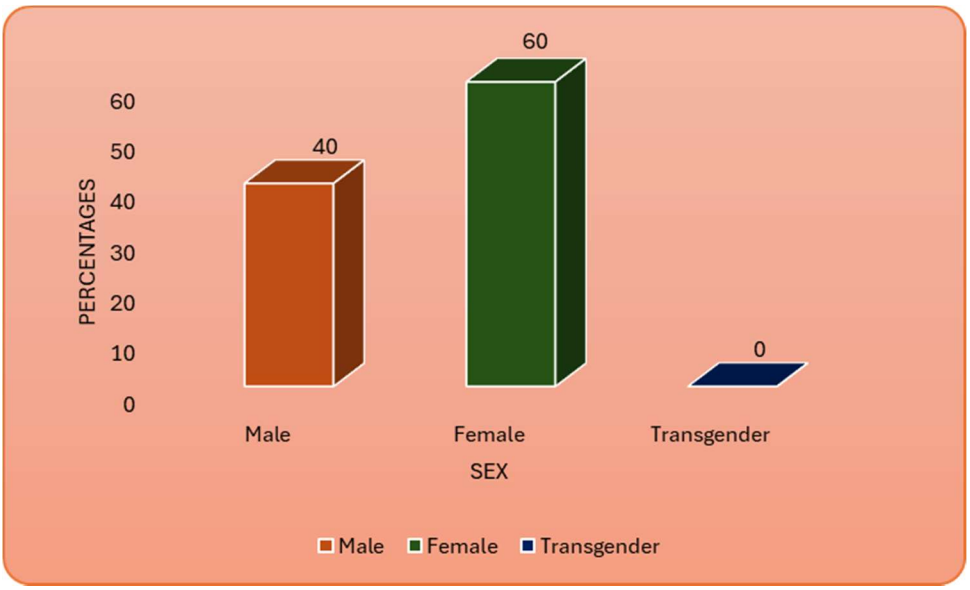

Figure 2: Distribution of Adults with regards to sex

The above fig 2 shows that the Distribution of adults according to their sex shows that the highest percentages 60 % of adults were female and 40 % of adults were male.

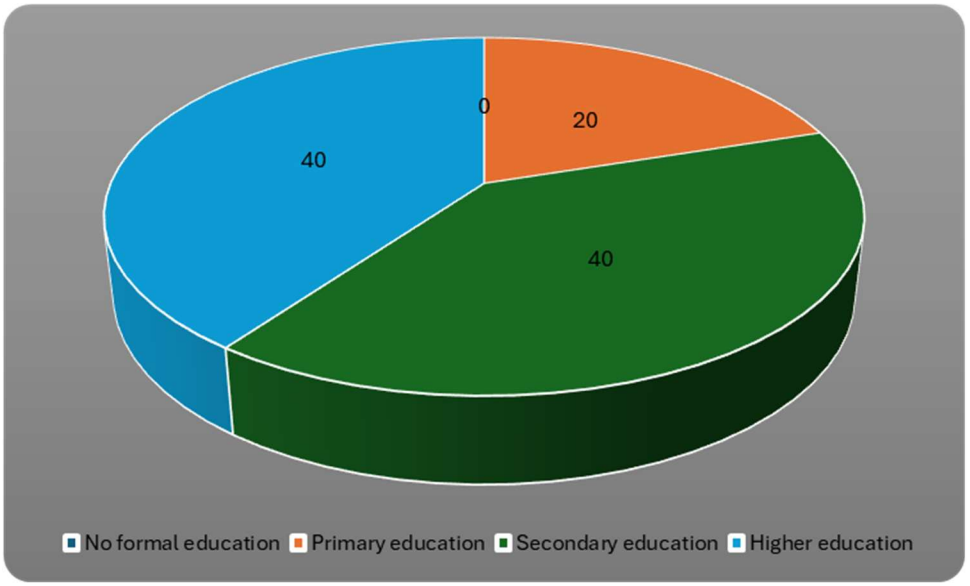

Figure 3: Distribution of Adults with regards to Education

The above figure 3 shows that the Distribution of adults of according to their Education shows that the 20 % of the adults were having primary education. 40 % of the adults were having secondary education and higher education respectively.

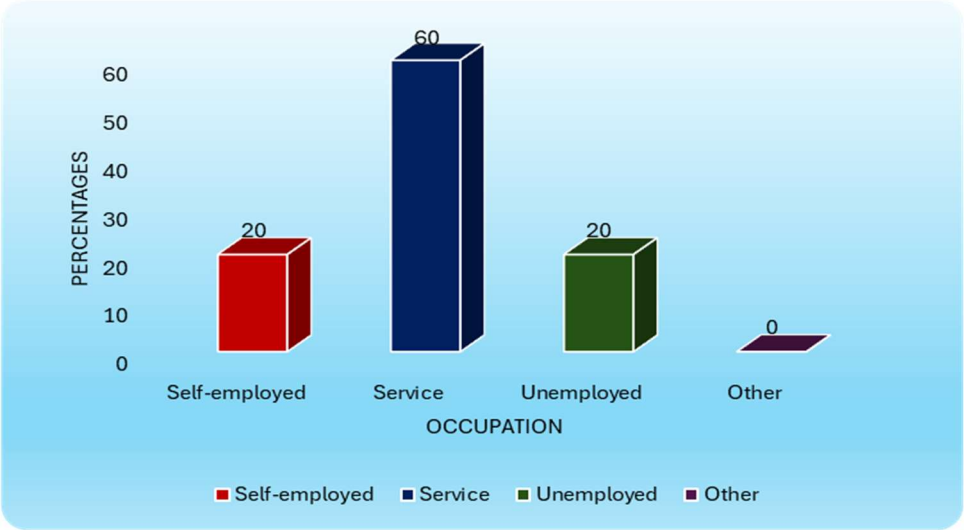

Figure 4: Distribution of Adults with regards to occupation

The above figure 4 shows that the Distribution of adults according to their occupation shows that the 20 % of the adults were self-employed. 60 % of the adults were doing service. 20 % of the adults were unemployed.

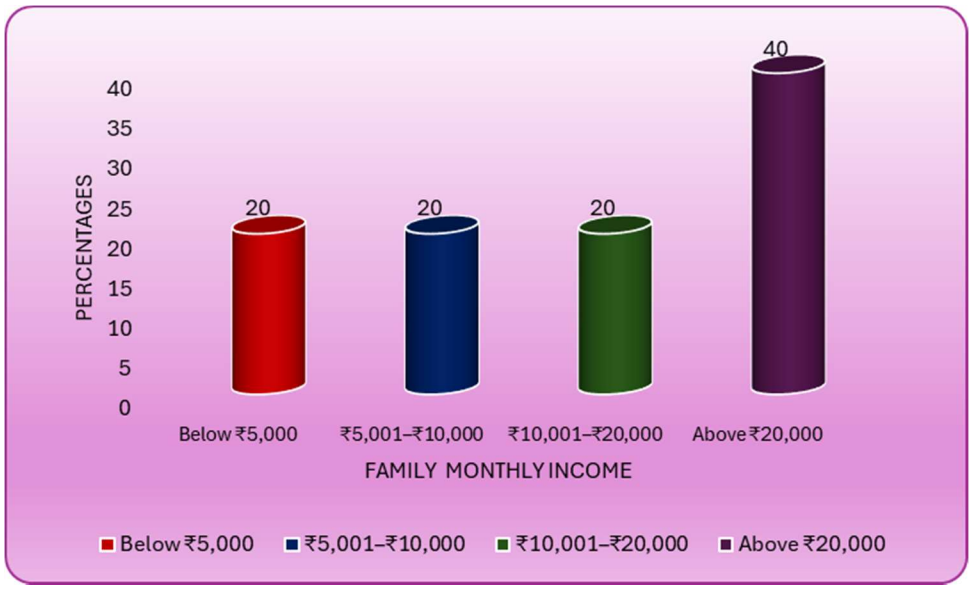

Figure 5: Distribution of Adults with regards to family monthly income

The above figure 5 shows that the Distribution of adults according to their Family monthly income shows that the 20 % of the adults were having Below ₹5,000, ₹5,001–₹10,000 and ₹10,001–₹20,000 family monthly income and 40 % of the adults were having Above ₹20,000 family monthly income.

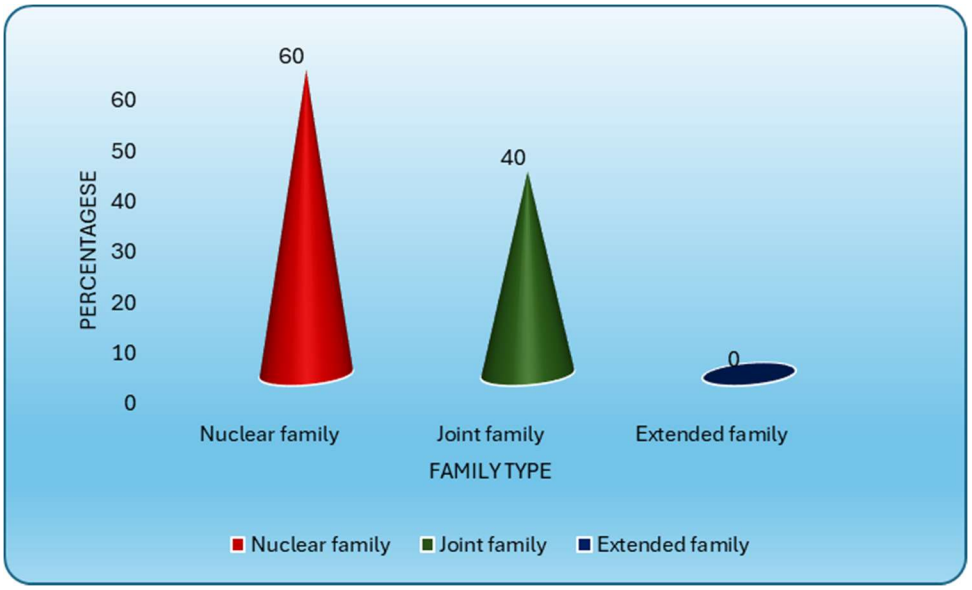

Figure 6: Distribution of Adults with regards to family type

The above figure 6 shows that the Distribution of adults according to their family type shows that the 60 % of the adults were living in nuclear family and 40 % of the adults were living in joint family.

SECTION II: ASSESSMENT OF KNOWLEDGE SCORE OF ROUTINE MEDICAL CHECKUPS AMONG ADULTS.

Table 1: Assessment of Knowledge score of adults regarding routine medical checkups before giving Health teaching. n=200

Domain	Maximum score	Mean	Standard deviation	Mean percentage
Knowledge score	12	6.05	2.04	30.25

The above table 1 shows the in pretest mean knowledge score regarding routine medical checkups among adults was 6.05. It indicates that, adults were having average knowledge in pretest.

Table 2: Assessment of Knowledge score of adults regarding routine medical checkups after giving Health teaching. n =200

Domain	Maximum score	Mean	Standard deviation	Mean percentage
Knowledge score	20	15.05	1.83	75.25

The above table 2 shows the in posttest mean knowledge score regarding routine medical checkups among adults was 15.05. It indicates that, adults were having excellent knowledge in posttest.

SECTION III: EVALUATE THE EFFECTIVENESS OF HEALTH TEACHING ON ROUTINE MEDICAL CHECKUPS.

Table 3: Significance of knowledge score regarding routine medical checkups of Adults before and after Health teaching. n=200

Overall	Maximum score	Mean	Standard deviation	Mean percentage	t-value	p-value
Pre Test	12	6.05	2.04	30.25	44.78	0.000 S, p<0.05
Post Test	20	15.05	1.83	75.25		

(S = Significant at 0.05 level of significance)

The above table 3 shows that in the pretest the mean of the knowledge score obtained by the adults was 6.05 and in the post test it rise to 15.05. The knowledge score of the adults shows marked improvement after giving Health teaching. From the above table, it is evident that the calculated 't' value was greater than the table value of 't' at 0.05 level. This indicates that Health teaching was effective in improving the knowledge of the adults regarding routine medical checkups.

SECTION IV: LEVEL OF KNOWLEDGE SCORE OF ADULTS IN PRE AND POST TEST

Table 4: Level of knowledge score of subjects pre and posttest n=200

Level of Knowledge Score	Pre test		Post test		χ^2 value	p-value
	F	%	F	%		
Poor	89	44.50	0	00		

Average	108	54.00	0	00	137.49	p <0.0001, Significant
Good	03	01.50	113	56.50		
Excellent	0	00	87	43.50		

(Significant at 0.05 level of significance)

The above table 4 shows that, in pretest 44.50 % of the adults had poor level of knowledge score, 54 % had average level of knowledge score. In posttest 56.50 % of the adults had good level of knowledge score and 43.50 % had excellent level of knowledge score. The difference between pretest and posttest level of knowledge score was found to be statistically significant (χ^2-value= 137.49).

SECTION- V: ASSOCIATION OF KNOWLEDGE SCORE OF ADULTS IN RELATION TO DEMOGRAPHIC VARIABLES

Table 5: Significance of difference of Pretest knowledge on routine medical checkups in relation to demographic variable n=200

Demographic Variable	No. of Adults	Pretest knowledge	F-value	p-value
Age (yrs)				
36 – 45 years	80	5.86 ± 2.06	1.44	0.23 NS, p>0.05
46 – 55 years	80	6.00 ± 1.92		
51 – 65 years	40	6.52 ± 2.21		
Sex				
Male	80	6.03 ± 2.07	0.005	0.94 NS, p>0.05
Female	120	6.05 ± 2.03		
Transgender	00	00		
Education				
No formal education	00	00	1.44	0.23 NS, p>0.05
Primary education	40	6.52 ± 2.21		
Secondary education	80	6.00 ± 1.92		
Higher education	80	5.86 ± 2.06		
Occupation				
Self-employed	40	6.20 ± 1.88	0.25	0.77 NS, p>0.05
Service	120	6.05 ± 2.03		
Unemployed	40	5.87 ± 2.26		
Other	00	00		
Family monthly income				

Below ₹5,000	40	5.80 ± 1.97	1.04	0.37 NS, p>0.05
₹5,001–₹10,000	40	6.52 ± 2.21		
₹10,001–₹20,000	40	5.85 ± 1.86		
Above ₹20,000	80	6.03 ± 2.07		
Family type				
Nuclear family	120	6.08 ± 2.12	0.79	0.77 NS, p>0.05
Joint family	80	6.00 ± 1.92		
Extended family	00	00		

DISCUSSION

Al-Kahil AB et al. (2020) conducted study on Knowledge and Practices toward Routine Medical Checkup among Middle-Aged and Elderly People of Riyadh. This is cross-sectional study was conducted in different locations of Riyadh using a convenience sampling technique, with sample size of 414 Saudi participants of both genders aged 36 years old and above. The data were collected through self-administered structured questionnaire with demographic variables, frequency of routine medical checkup, knowledge questions, factors that enhance or prevent individual to do routine checkup and best way to spread the awareness. The result of the study showed that the Two hundred eighty-eight (69.57%) participants knew well about routine checkup and 142 (34.3%) of them do routine medical checkup. "Lack of time" and "Laziness" were reported as the 2 most common preventing factors (46% and 45.2%), respectively, and most common reason that influenced their practice was "health concern" (77.5%) followed by "worry about chronic or serious illness" (32.4%). Participants believed that social networks (twitter, Facebook) and media (TV, radio) are most effective ways to spread awareness of it in the community (53.86% and 52.89%, respectively). The study concluded that high level of knowledge on routine health checkup, but a low prevalence was observed in practice. Hence, more health initiatives should be taken for routine medical screening in the Saudi community. [7]

CONCLUSION:

Based on the findings of the study, it concluded that the adults had inadequate knowledge regarding routine medical checkups prior to the intervention. The implementation of health teaching significantly improved their knowledge levels, as evidenced by the increase in mean scores and improvement in knowledge categories. The study clearly proves that health teaching is an effective method in enhancing knowledge and awareness among adults regarding routine medical checkups. Therefore, regular health education programs should be conducted in rural areas to promote preventive healthcare practices, early detection of diseases, and overall improvement in community health status.

RECOMMENDATIONS

1. A similar study can be conducted on a larger sample size to increase generalizability.

2. The study can be replicated in different settings such as urban and rural areas.
3. Comparative studies can be conducted using different teaching methods like video-assisted teaching, group discussion, and structured teaching programs.
4. A follow-up study can be conducted to assess long-term retention of knowledge.
5. Further studies can be conducted to assess not only knowledge but also health practices and behavior changes among adults.
6. Experimental studies can be conducted to evaluate the effectiveness of continuous health education programs in improving routine health checkup practices.

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