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Original Article

A Study to Assess the Impact of Health Awareness Programs on the Nutritional Knowledge and Practices among Adolescents in a Community Setting

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Abstract

Background: Teenagers are particularly susceptible to unhealthy eating patterns, which can result in long-term health hazards and nutritional deficits. Community-based health awareness initiatives are essential for advancing dietary literacy and good eating habits.

Materials & Methods: A quasi-experimental study was conducted among 60 adolescents from selected Communitys. Structured questionnaires assessed nutritional knowledge and practices before and after implementation of health awareness programs, including lectures, group discussions, and visual aids. Data were analyzed using paired t-test and chi-square test.

Results: Post-intervention scores revealed a significant improvement in nutritional knowledge ($p<0.001$) and dietary practices ($p<0.05$) among participants.

Conclusions: Community-based health awareness programs are effective in improving nutritional awareness and healthy dietary behaviors among adolescents.

Keywords: Adolescents, Nutritional knowledge, Dietary practices, Health awareness programs, Community health.

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Introduction

Rapid physical, psychological, and social changes characterize adolescence, a crucial period of growth and development. Since nutritional needs are much greater during this time, a good diet and awareness are crucial for normal development[1]. However, adolescents frequently engage in bad eating habits, consume junk food, and lack understanding, all of which contribute to the increased prevalence of obesity, malnutrition, and micronutrient deficiencies[2].

Nearly 35% of teenagers worldwide do not fulfill their daily nutritional needs, according to the World Health Organization (WHO), and bad eating habits add to the combined burden of obesity and malnutrition[3]. The National Family Health Survey (NFHS-5) in India found that teenage girls had a high prevalence of anemia (59.1%) and that urban adolescents were becoming more obese[4].

Since teenagers spend a large amount of time in their communities and peer influence is strong, these settings offer an excellent platform for health teaching and promotion[5]. When properly executed, health awareness initiatives can enhance nutrition-related knowledge, attitudes, and practices (KAP) and promote long-term behavioral change[6].

According to numerous research, community-based interventions—like talks, posters, audiovisual aids, and interactive discussions—significantly increase teenagers' understanding of a healthy diet and lower their intake of junk food[7–8]. However, these programs are either not routinely run or are only offered as one session with no follow-up in many low- and middle-income settings[9].

This study was conducted to evaluate the effects of health awareness programs on adolescents' nutritional knowledge and behaviors, taking into account the significance of adolescence as a foundation for adult health and the function of communities as a platform for health promotion.

Objectives

1. To assess the baseline nutritional knowledge and dietary practices of adolescents.
2. To implement a structured health awareness program on nutrition among adolescents.
3. To evaluate the impact of the health awareness program on adolescents' nutritional knowledge and practices.

Hypothesis

H_0: There will be no significant difference in the nutritional knowledge and practices of adolescents before and after the health awareness program.

H_1: There will be a significant improvement in the nutritional knowledge and practices of adolescents after the health awareness program.

Materials and Methods

- **Study Design:** Quasi-experimental, one group pre-test and post-test design.
- **Study Setting:** Selected Community area in Dadraul CHC, Shahjahanpur.
- **Population:** Adolescents aged 13–18 years enrolled Dadraul CHC, Shahjahanpur.
- **Sample Size:** 60 adolescents selected using stratified random sampling.
- **Inclusion Criteria:** Adolescents present on the day of data collection, willing to participate, and with parental consent.
- **Exclusion Criteria:** Students with chronic illness or on therapeutic diets.
- **Tool:** A structured questionnaire with two parts:
    - Section A: Nutritional knowledge (20 multiple-choice questions).
    - Section B: Nutritional practices (self-reported dietary recall and habits).
- **Intervention:** A structured health awareness program including interactive lecture, group discussion, audiovisual aids, and posters. Duration: 3 sessions over 2 weeks.
- **Data Collection Procedure:**
    - Pre-test conducted using the structured questionnaire.
    - Health awareness program delivered.
    - Post-test conducted 4 weeks later using the same questionnaire.
- **Ethical Considerations:** Approval from Institutional Ethics Committee obtained. Written consent from Community authorities, assent from adolescents, and parental consent taken. Confidentiality maintained.
- **Data Analysis:** Descriptive statistics (mean, percentage, SD) and inferential statistics (paired t-test, chi-square test). Significance set at $p<0.05$.

Results

01. Majority (55%) were in the age group 15–16 years; 52% were females, 48% males.
02. Out of 60 adolescents, 52% were females and 48% were males
03. Majority (45%) of adolescents were studying at the secondary level, followed by 33% in higher secondary, while 22% were in the primary level of education.

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04. About 30% of fathers had completed secondary education, 25% were graduates & above, 28% had primary education, and 17% were illiterate.
05. Nearly 32% of mothers had primary education, 30% had completed secondary education, 20% were graduates & above, and 18% were illiterate.
06. The majority of fathers (35%) were engaged in farming, 28% were in service, 20% in labor work, and 17% in business.
07. More than half of the mothers (58%) were housewives, 22% worked as laborers, 12% were in service, and 8% were engaged in business.
08. Around 37% of families had a monthly income between ₹10,001–20,000, 28% earned less than ₹10,000, 20% earned between ₹20,001–30,000, and only 15% earned more than ₹30,000.
09. Most adolescents (62%) belonged to nuclear families, whereas 38% were from joint families.
10. The majority of respondents (70%) were Hindus, followed by Muslims (20%), Christians (7%), and others (3%).

Table 1: Baseline Nutritional Knowledge of Adolescents (Pre-test)

Knowledge Level	Score Range	Frequency (n=60)	Percentage (%)
Poor Knowledge	0–6	18	30.0
Average Knowledge	7–12	24	40.0
Good Knowledge	13–20	18	30.0
Total	-	**60**	**100.0**

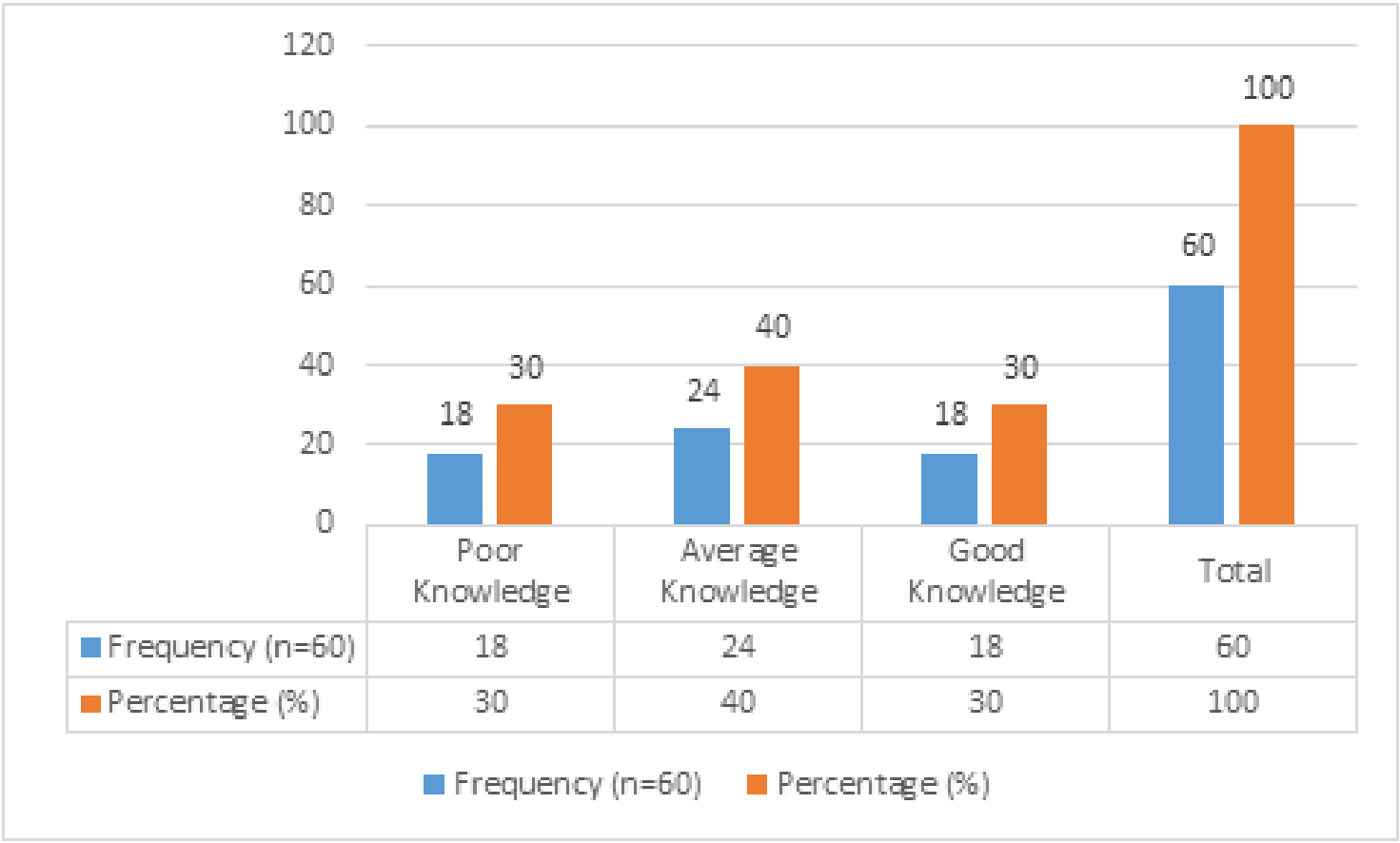

Figure01: Baseline Nutritional Knowledge of Adolescents (Pre-test)

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Table 2: Baseline Nutritional Practices of Adolescents (Pre-test)

Practice Variable	Frequency (n=60)	Percentage (%)
Junk food consumption ≥3/week	37	61.7
Daily fruit consumption	24	40.0
Skipping breakfast ≥2/week	29	48.3
Regular vegetable intake	27	45.0

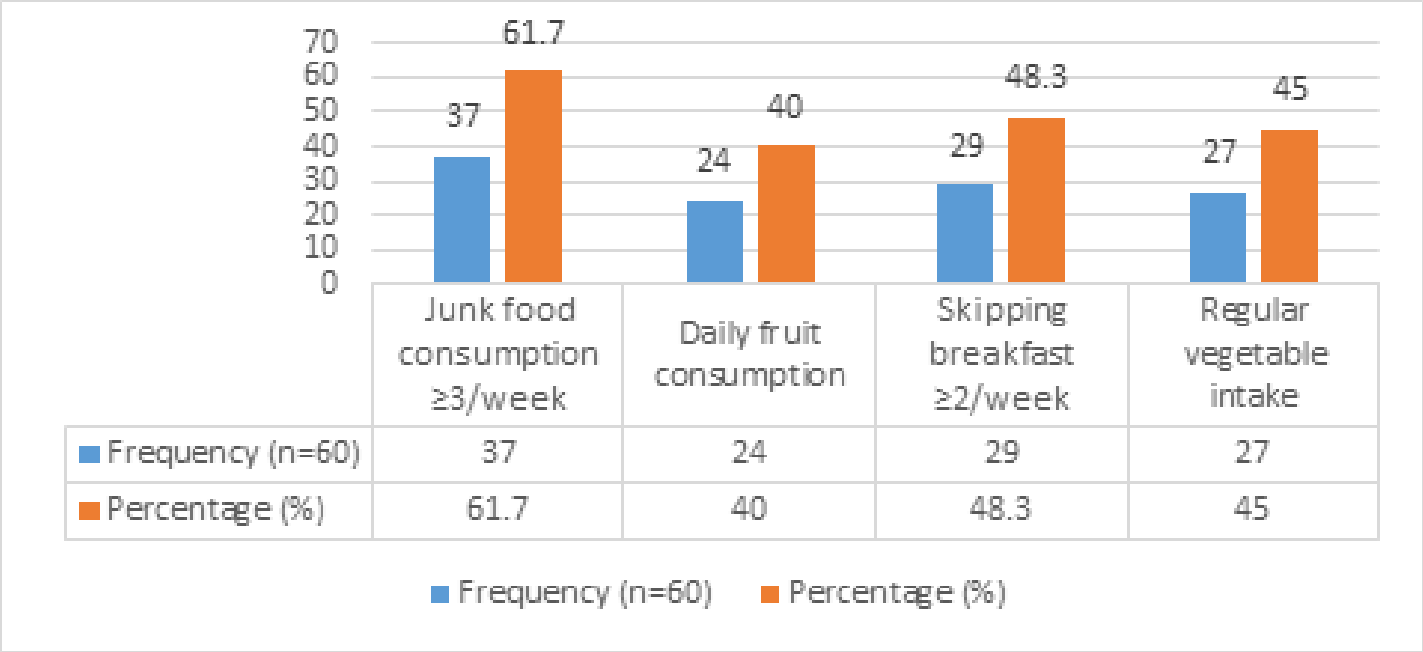

Figure 02: Baseline Nutritional Practices of Adolescents (Pre-test)

Table 3: Components of Health Awareness Program Implemented

Session	Method Used	Duration	Content Covered
1	Interactive Lecture	45 min	Balanced diet, food groups, importance of nutrition
2	Group Discussion	30 min	Junk food hazards, healthy snacking
3	Audio-visual + Posters	45 min	Anemia prevention, iron-rich foods, hydration

Table 4: Comparison of Mean Knowledge Scores (Pre- and Post-test, n=60)

Test	Mean ± SD	Paired t-value	p-value
Pre-test	8.5 ± 2.0		
Post-test	15.4 ± 2.7	13.62	<0.001***

11.***p<0.001 highly significant

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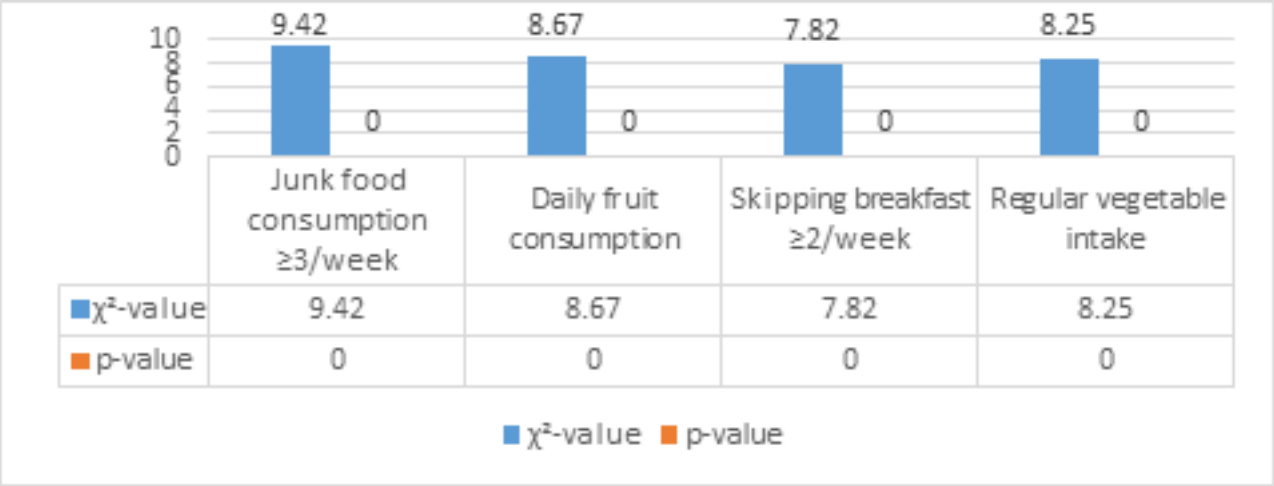
Table 5: Comparison of Nutritional Practices Before and After Intervention (n=60)

Practice Variable	Pre-test (n=60)	Post-test (n=60)	x^2 - value	p-value
Junk food consumption ≥3/week	37 (61.7%)	18 (30.0%)	9.42	<0.05*
Daily fruit consumption	24 (40.0%)	41 (68.3%)	8.67	<0.05*
Skipping breakfast ≥2/week	29 (48.3%)	13 (21.7%)	7.82	<0.05*
Regular vegetable intake	27 (45.0%)	43 (71.7%)	8.25	<0.05*

12.*p<0.05 significant



Discussion

The findings of this study revealed a significant improvement in adolescents' nutritional knowledge and dietary practices following the health awareness program. Similar findings were reported by Singh et al.[10], where structured Community-based education improved healthy eating habits among adolescents.

The reduction in junk food consumption and increase in fruit and vegetable intake post-intervention is consistent with the study by Verma et al.[11], which highlighted the effectiveness of interactive nutrition programs in modifying dietary behaviors.

Our results also align with WHO recommendations that continuous health education interventions are key in addressing adolescent malnutrition[12]. The study demonstrates that Communitys are an effective platform for health promotion, consistent with previous research emphasizing the role of teachers and peers in reinforcing healthy behaviors[13].

However, sustained programs and reinforcement are required to maintain long-term changes. A limitation of the present study was the short duration of follow-up and reliance on self-reported dietary practices, which may be subject to recall bias.

Conclusion

The study concludes that structured Community-based health awareness programs significantly improve nutritional knowledge and healthy dietary practices among adolescents. Integration of such programs into Community health curricula can help in preventing malnutrition, anemia, and obesity, thereby contributing to long-term health benefits.

Recommendations

1. **Integration into Community Health Programs:**To guarantee sustainability, community-based nutrition health awareness programs should be integrated into already-existing health efforts like

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as the National Nutrition Mission and Rashtriya Kishor Swasthya Karyakram (RKSK).

2. **Involvement of Parents and Families:** In order to foster good eating habits and decrease the intake of junk food, parents should be involved in nutrition education.
3. **Training of Community Health Workers:** In order to provide culturally relevant and adolescent-friendly nutrition instruction during community visits, ASHAs, ANMs, and Anganwadi workers should get training.
4. **Use of Mass Media and Social Media:** Adolescents in the community can be effectively educated about nutrition through posters, pamphlets, street plays, and social media platforms.
5. **School–Community Collaboration:** While the community serves as the main venue, cooperation with local schools can increase the outreach of awareness campaigns and provide consistent nutrition messaging.

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Conflicts of interests: There is no conflict of interest

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