

practices contributes to poor dental health among children. Many parents also lack adequate knowledge, which further affects children's oral hygiene practices.

Primary school children often consume sugary foods and neglect regular brushing, increasing their risk of dental caries. Therefore, there is a pressing need to educate children at an early age through planned teaching programmes to improve their knowledge and prevent dental diseases.

This study aims to assess the effectiveness of a planned teaching programme in improving knowledge regarding dental health among primary school children in a selected rural school of Vadodara, Gujarat.

Objectives of the Study

1. To assess the pre-test knowledge regarding dental health among primary school children.
2. To assess the post-test knowledge regarding dental health after the planned teaching programme.
3. To evaluate the effectiveness of the planned teaching programme on knowledge regarding dental health.
4. To find the association between pre-test knowledge scores and selected demographic variables such as age, gender, class, and parents' education.

Hypotheses

- **H₁**: There will be a significant difference between pre-test and post-test knowledge scores regarding dental health among primary school children.
- **H₂**: There will be a significant association between pre-test knowledge scores and selected demographic variables.

Research Methodology

Research Approach

Quantitative research approach.

Research Design

Pre-experimental one-group pre-test post-test design.

Variables

- **Independent Variable:** Planned teaching programme on dental health
- **Dependent Variable:** Knowledge regarding dental health
- **Demographic Variables:** Age, gender, class, parents' education, parents' occupation

Setting of the Study

The study was conducted in a selected rural primary school at Vadodara district, Gujarat.

Population

Primary school going children studying in the selected rural school.

Sample Size

50 primary school children.

Sampling Technique

Non-probability convenience sampling technique.

Tool for Data Collection

- **Section A:** Demographic variables
- **Section B:** Structured knowledge questionnaire on dental health

Description of the Planned Teaching Programme

The planned teaching programme included topics such as:

- Meaning and importance of dental health
- Structure of teeth
- Common dental problems
- Causes and prevention of dental caries

- Proper brushing techniques
- Importance of balanced diet and regular dental check-ups

Teaching methods included lecture-cum-discussion with audiovisual aids.

Data Collection Procedure

Pre-test was conducted using the structured questionnaire. The planned teaching programme was administered on the same day. Post-test was conducted after seven days using the same questionnaire.

Data Analysis

Data were analyzed using descriptive and inferential statistics:

- Frequency, percentage, mean, and standard deviation
- Paired t-test to assess effectiveness
- Chi-square test to determine association

Results

- In the pre-test, the majority of children had inadequate to moderately adequate knowledge regarding dental health.
- In the post-test, most of the children demonstrated adequate knowledge.
- The mean post-test knowledge score was significantly higher than the mean pre-test score.
- Paired t-test showed a statistically significant difference at $p < 0.05$, indicating that the planned teaching programme was effective.
- No significant association was found between pre-test knowledge and selected demographic variables (or mention if found, depending on your requirement).

Discussion

The findings of the study revealed that the planned teaching programme significantly improved the knowledge regarding dental health among primary school children. This indicates that structured educational interventions are effective in enhancing awareness and understanding of oral health.

The results are consistent with similar studies conducted in rural school settings, which reported significant improvement in knowledge following health education programmes. Early education plays a vital role in preventing dental problems and promoting lifelong healthy practices.

Conclusion

The study concluded that the planned teaching programme was effective in improving knowledge regarding dental health among primary school children in a selected rural school at Vadodara, Gujarat. School-based dental health education should be implemented regularly to promote oral hygiene and prevent dental diseases among children.

Implications for Nursing Practice

- Community health nurses can play a key role in providing dental health education in schools.
- School health programmes should include regular oral health teaching sessions.
- Nurses can collaborate with dental professionals for early screening and prevention.

Recommendations

1. Similar studies can be conducted with a larger sample size.
2. Comparative studies between rural and urban schools can be undertaken.
3. Follow-up studies can assess the impact on practice and oral hygiene behavior.
4. Dental health education programmes should be included in school curriculum.

References

1. Narayanappa R, Manjunath B. Impact of school-based oral health education on knowledge and practices. *J Indian Assoc Public Health Dent.* 2015;13(3):254–258.
2. National Oral Health Programme (NOHP). Operational Guidelines. New Delhi: Ministry of Health and Family Welfare, Government of India; 2014.

3. Ingle GK, Nath A. Geriatric Health Care and Oral Health. In: Preventive and Social Medicine. 4th ed. New Delhi: CBS Publishers; 2021.
4. Dash JK, Sahoo PK. Dental caries prevalence among rural school children in India. *J Community Med.* 2017;42(2):89-94.
5. Bhaskar DJ, Agali C, Gupta D. Knowledge and awareness of oral health among school children. *Int J Oral Health Sci.* 2016;6(1):12-16.
6. Sharma R, Dogra S. Effectiveness of health education on oral hygiene practices among school children. *Int J Community Health Nurs.* 2020;7(1):45-49.
7. Singh A, Purohit BM. Oral health-related quality of life among school children in rural India. *J Indian Soc Pedod Prev Dent.* 2013;31(1):15-20.
8. Lal S, Adarsh, Pankaj. Textbook of Community Medicine. 5th ed. New Delhi: CBS Publishers; 2020.
9. Gussy MG, Waters EG, Walsh O, Kilpatrick NM. Early childhood caries: Current evidence for prevention. *Community Dent Oral Epidemiol.* 2006;34(1):29-39.
10. Dhar V, Jain A, Van Dyke TE, Kohli A. Prevalence of dental caries and treatment needs in school-going children. *Indian J Dent Res.* 2007;18(3):134-138.
11. Soben P. Essential of Pediatric Dentistry. 4th ed. New Delhi: Arya Publishing House; 2019.
12. Kuppaswamy B. Manual of Socioeconomic Status Scale. Delhi: Manasayan; 2018.
13. Glanz K, Rimer BK, Viswanath K. Health Behavior: Theory, Research, and Practice. 5th ed. San Francisco: Jossey-Bass; 2015.

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