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EFFECTIVENESS OF FENUGREEK SEED PASTE APPLICATION IN REDUCING DANDRUFF AMONG ADULT GIRLS AT SELECTED HOSTEL, COIMBATORE

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ABSTRACT

Background: Dandruff is a common scalp condition. Fenugreek seed paste is a herbal remedy that may help reduce dandruff. **Objective**: To assess the effectiveness of fenugreek seed paste application in reducing dandruff among adult girls at a hostel in Coimbatore. **Methods:** A pre-experimental one-group pre-test post-test design was adopted. Thirty adult girls were selected using purposive sampling. A structured dandruff assessment scale was used to assess dandruff before and after fenugreek seed paste application. Descriptive and inferential statistics were used for data analysis. **Results:** In the pre-test, 20% had severe, 60% moderate and 20% mild dandruff. In the post-test, 3.3% had severe, 26.7% moderate, 50% mild and 20% no/minimal dandruff. The mean score changed from 11.2 to 19.3, with a mean difference of 8.1. **Conclusion**: The findings indicated improvement in dandruff status following fenugreek seed paste application. Significant associations were found with type of family and frequency of hair washing.

KEYWORDS

Fenugreek seed paste, Dandruff, Adult girls, Effectiveness, Herbal remedy and Hair washing.

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INTRODUCTION

Dandruff is a common scalp disorder characterized by flaking and excessive shedding of dead skin cells. It may be associated with itching, dryness, oily scalp and hair fall. Factors such as poor scalp hygiene, excessive sebum production, Malassezia yeast, stress, hormonal changes and unsuitable hair-care products may contribute to dandruff. Adult girls may experience discomfort, embarrassment and reduced self-confidence due to dandruff. Various methods are

available for dandruff management, including medicated shampoos and topical preparations. Fenugreek seeds contain bioactive compounds and have traditionally been used for hair and scalp care. Fenugreek paste is considered a simple, inexpensive and easily available natural approach that may help reduce scalp flaking. Therefore, the present study was undertaken to assess the effectiveness of fenugreek seed paste application in reducing dandruff among adult girls.

Objectives

To assess the pre-test level of dandruff among adults

To assess the post-test level of dandruff among adult after fenugreek seed application

To determine the effectiveness of fenugreek seed application in reducing dandruff among adults

To determine the association between the pre-test level of dandruff among demographic variables

Hypotheses

H_1: There will be significant difference between the pre-test and post-test level of dandruff among adults after fenugreek seed application.

H_2: There will be no significant difference between the pre-test and post-test level of dandruff among adults after fenugreek seed application.

Assumption

Adult girls may have dandruff and may have inadequate knowledge regarding natural management of dandruff.

Fenugreek paste application may help to reduce dandruff among adult girls.

Delimitation

The study is limited to adult girls who have dandruff in selected Girls Hostel, Coimbatore.

The sample size is limited to 30 adult girls having dandruff.

The study period is limited to 2 weeks of duration.

The study is limited to application of fenugreek paste only

REVIEW OF LITERATURE

Section A

Assess the Formulation and Evaluation of Anti-Hair fall and Anti-Dandruff shampoo.

NBRI Scientists (2026)

The National Botanical Research Institute developed an herbal formulation using eucalyptus extracts for dandruff and scalp infections. Eucalyptus was selected for its antimicrobial properties. Laboratory findings showed effectiveness against dandruff-causing fungi and reduced microbial growth. The formulation also demonstrated anti-inflammatory activity and improved scalp condition. The researchers concluded that herbal formulations have potential in hair care and recommended further development of herbal anti-dandruff products.

Section B

Studies related to effectiveness of fenugreek seed paste on dandruff among adult girls

Ahmed and Khan (2023)

Investigated natural approaches for dandruff management and identified fenugreek as a herbal ingredient with antifungal activity. Participants applied fenugreek seed paste regularly for several weeks. Clinical assessment showed reduction in scalp scaling and itching, with improvement in scalp condition. The treatment was reported to be safe, non-irritating, affordable and easy to use. The researchers suggested that fenugreek could be incorporated into routine hair care and concluded that it was effective against dandruff.

METHODOLOGY

A quantitative research approach with a quasi-experimental one-group pre-test post-test design was adopted to assess the effectiveness of fenugreek seed paste application in reducing dandruff among adult girls. The study was conducted among 30 adult girls with dandruff in the selected community area/hostel, Coimbatore. Purposive sampling technique was used to select the participants. Data were collected using a structured demographic questionnaire, dandruff assessment scale and visual inspection checklist. A pre-test was conducted before the intervention. Fenugreek seed paste was then applied as the intervention, followed by post-test assessment after the intervention period. The dandruff assessment included features such as scalp flaking, scaling, itching, redness/irritation and severity of dandruff. The collected data were analysed using frequency,

percentage, mean, standard deviation, paired 't' test and chi-square test. Ethical permission and informed consent were obtained and confidentiality and anonymity of the participants were maintained.

ORGANIZATION AND FINDINGS

The data obtained from the adult girls were organized, analysed and presented under the following sections:

Section A

Distribution of study participants according to selected demographic variables.

Section B

Assessment of level of dandruff among adult girls

Part I

Pre-test level of dandruff.

Part II

Post-test level of dandruff.

Section C

Effectiveness of fenugreek seed paste application in reducing dandruff

Part I

Comparison of pre-test and post-test level of dandruff.

Part II

Mean, standard deviation, mean difference and paired 't' value of pre-test and post-test dandruff scores.

Section D

Association between the pre-test level of dandruff and selected demographic variables. Type of family, Frequency of hair washing, Age, Religion, Educational status, Year of study Monthly family income, Previous history of dandruff, Type of hair.

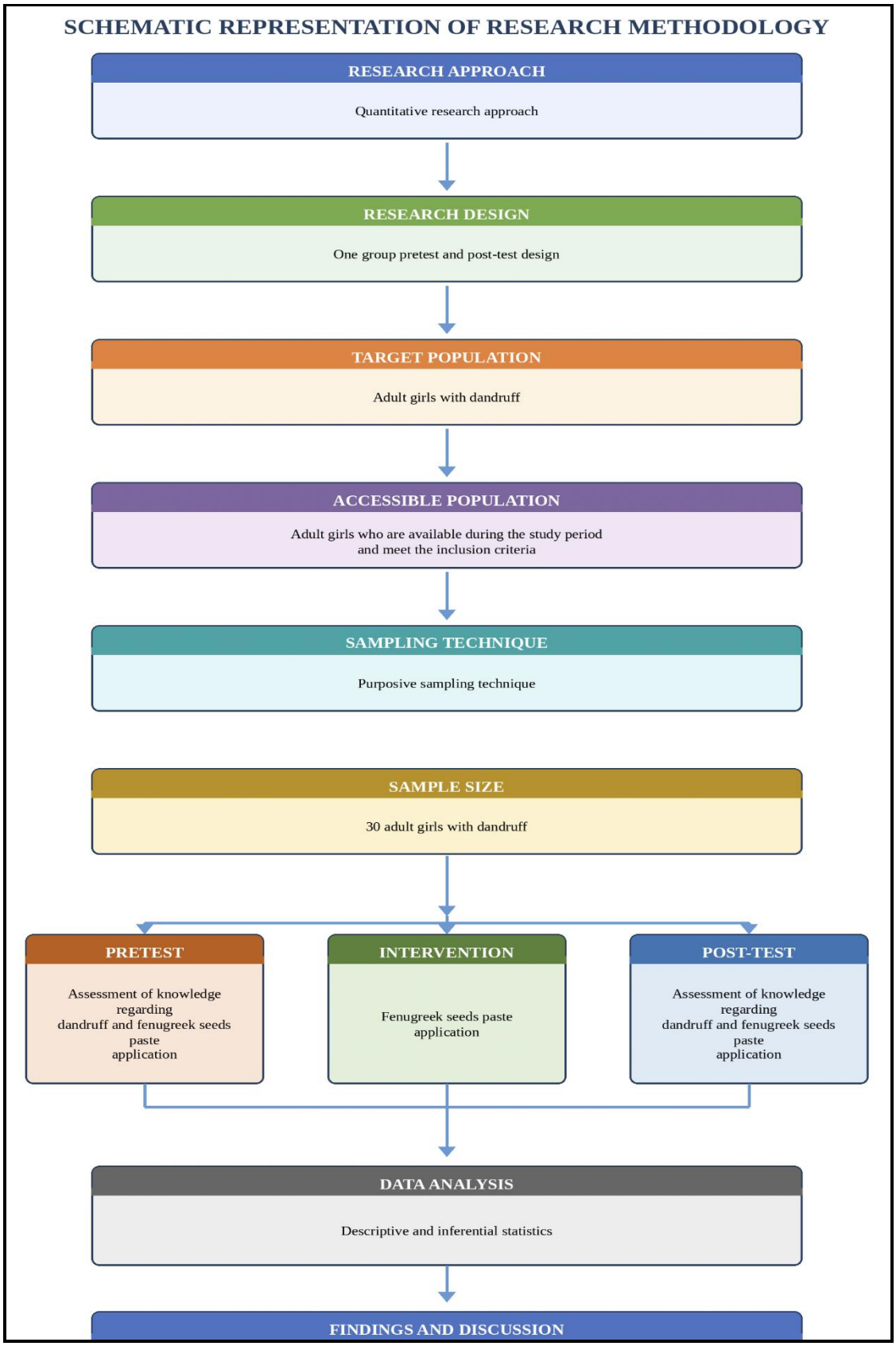
The study found significant associations with type of family and frequency of hair washing, while no significant association was found with the other selected demographic variables.

RESULTS AND DISCUSSION

Interpretation: In the pre-test, 60% had moderate dandruff, 20% had severe dandruff and 20% had mild dandruff. After fenugreek seed paste application, 50% had mild dandruff and 20% had no/minimal dandruff.

Table No.1: Frequency and percentage distribution of adult girls according to pre-test and post-test level of dandruff

S.No	Level of dandruff	Pre-test		Post-test	
		Pre-test (F)	Pre-test (%)	Frequency (F)	Percentage (%)
1	Mild	6	20.0	15	50.0
2	Moderate	18	60.0	8	26.7
3	Severe	6	20.0	1	3.3
4	No /Minimal dandruff	0	0.0	6	20.0



Chat No.1: Schematic Representation of Research Methodology

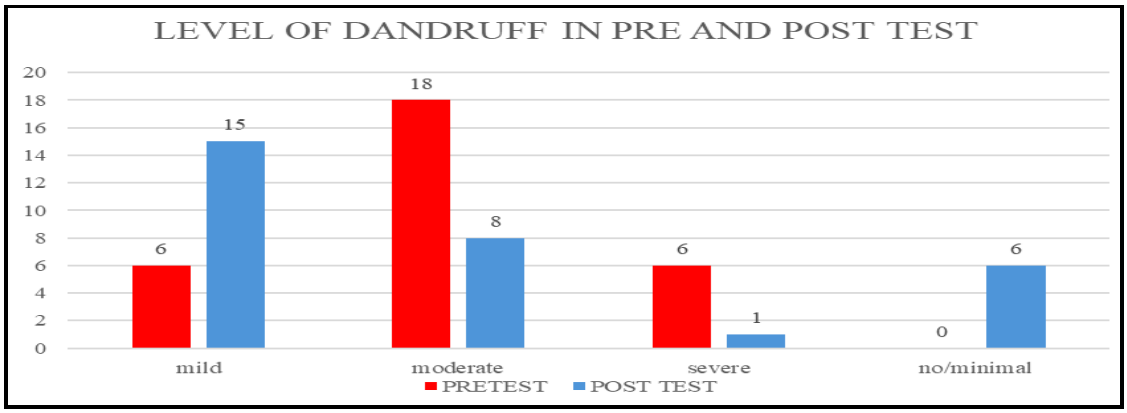


Figure No.1: A bar diagram showing the percentage distribution of samples according to their pre-test and post-test level of dandruff

CONCLUSION

The study concluded that fenugreek seed paste application was effective in reducing dandruff among adult girls. The proportion of participants with severe and moderate dandruff decreased after the intervention, while the proportion with mild and no/minimal dandruff increased. The mean dandruff score improved from 11.2 in the pre-test to 19.3 in the post-test, with a mean difference of 8.1. Fenugreek seed paste may therefore be considered a simple, economical and non-pharmacological approach for dandruff management. The study also identified significant associations between pre-test dandruff level and type of family and frequency of hair washing.

RECOMMENDATION OF THE STUDY

Nurses should provide regular health education regarding scalp hygiene and prevention of dandruff.

Adult girls should be educated regarding appropriate hair-washing and scalp-care practices.

Regular scalp assessment can be encouraged for early identification of dandruff.

Similar studies can be conducted with a larger sample size.

A comparative study can be conducted between fenugreek paste and commercially available anti-dandruff preparations.

Further studies can be conducted in different settings and populations.

Long-term studies may be conducted to assess the continued effectiveness of fenugreek seed paste.

Nursing students can conduct community-based health education programmes on dandruff prevention and scalp hygiene.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

BIBLIOGRAPHY

1. Park K. Textbook of preventive and social medicine, *M/s Banarsidas Bhanot Publishers, Jabalpur*, 27th Edition, 2023.
2. Basavanthappa B T. Community health nursing, *Jaypee Brothers Medical Publishers, New Delhi*, 2015.
3. Potter P A, Perry A G, Stockert P, Hall A. Fundamentals of nursing, *Elsevier*, 10th Edition, 2021.
4. Polit D F. Nursing research: Generating and assessing evidence for nursing practice, *Wolters Kluwer*, 11th Edition, 2021, 839.
5. Kliegman R M, St. Geme J W, Blum N J, Shah S S, Tasker R C, Wilson K M. Nelson Textbook of paediatrics, *Elsevier*, 21st Edition, 2020, 4264.



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