Seva Mandal Education Society's

Dr. Bhanuben Mahendra Nanavati College of Home Science (Autonomous)

NAAC Re-accredited "A+" Grade with CGPA 3.69/4 (3rd Cycle)
UGC Status College with Potential for Excellence (2016-2021)
"BEST COLLEGE AWARD 2016-17" Adjudged by S.N.D.T. Women's University
Selected under "Enhancing Quality and Excellence in select Autonomous College"
by Rashtriya Ucchatar Shiksha Abhiyan (RUSA)

VOLUME
13

ISSN 2320 - 0162

IDEAS

PEER REVIEWED INTERDISCIPLINARY JOURNAL

ISSUE - 1

STRIDE
SCHEME FOR TRANS- DISPLINARY RESEARCH FOR INDIA'S DEVELOPING ECONOMY

UGC Sponsored STRIDE
Research Capacity Building Centre

Smt. Parmeshwari Devi Gordhandas Garodia Educational Complex
338, R.A. Kidwai Road, Matunga (E), Mumbai: 400019

About The Centre

Dr. BMN College of Home Science (Autonomous) is recognised by the UGC as Research Capacity Building Centre and received a grant in December 2019, under the UGC's Scheme for Trans-disciplinary Research for India's Developing Economy (STRIDE). The scheme provides support to research projects that are socially relevant, locally need-based, nationally important and globally significant. With this aim at the core of all its initiatives, the STRIDE Research Capacity Building Centre of Dr BMN College has been organizing events, launching research courses, conducting seminars, and hosting guest lectures, to foster a culture of academic inquiry and rigorous research. Rather than viewing research as just one part of the academic curricula, the Research Capacity Building Centre has been striving from 2019 - 2023. to make research culture an inseparable part of the institutional ethos. The activities under the Centre cater not only to students, but also to faculty members. Some of the successful and notable initiatives in the span of 4 years include:

- Basic to Advanced Level certificate courses for undergraduate and postgraduate students on the fundamentals of research
- Research opportunities for the faculty members and mentoring sessions for their research projects
- Intercollegiate activities/events for faculty and students (AAKRITI 2022)
- Academic collaborations with subject experts from research institute.
- Publication opportunities for students and faculty
- Critical thinking lab to promote a conducive research environment for the students

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A Comparative Study to Assess the Effectiveness of Normal Steam Inhalation and Steam Inhalation with Cabbage Leaves to Manage the Symptoms of Common Cold, Cough and Relieve from Headache among Nursing Students at Selected Nursing Institute of Metropolitan City

Namrata Chopdekar[1], Karishma Chavan[2]
[1]Associate Professor,[2]Student
namrata.chopdekar@yahoo.com, karishmachavan1910@gmail.com
Smt. Sunanda Pravin Gambhirchand Institute of Nursing and Paramedical Sciences, Mumbai, India

Abstract

Steam inhalation has therapeutic benefits of natural expectorant which acts on lungs and throat. Ancient healers declared cabbage as powerful and as having moon power whereas Modern nutritional science understands its power comes from its high Sulphur and vitamin C content (Herrington, 2014). The study aims at finding the effectiveness of normal steam inhalation and steam inhalation with cabbage leaves to manage the symptoms of common cold, cough and relief from headache among nursing students. A quantitative research approach with quasi-experimental two group pre-test and post-test design used for the study. Total thirty samples were selected, fifteen in each control and experimental group. Non-probability purposive sampling technique was used. The study reveals that calculated t value 5.79 of the experimental group was more than calculated t value 4.52 of the control group which was highly significant at $p<0.05$ level. The chi-square test was used and there is no significant association between post-test results in the experimental group with their selected demographic variables after the administration of intervention. Thus steam inhalation with cabbage leaves is more effective than normal steam inhalation to manage common cold, cough, and headaches among nursing students. The steam inhalation with cabbage leaves was more effective than normal steam for managing the common cold, cough and relief from headaches.

Keywords: Steam inhalation, cabbage leaves, common cold, cough and headache

Introduction

There is no reason to believe that a safe, soothing home-made remedy is less effective than a safe commercial remedy. Most of the home remedies are harmless (Kamble et al., 2017, pp. 24-26). Steam inhalation has therapeutic benefits of natural expectorant which acts on lungs and throat. Inhaling steam is also necessary for preventing excessive drying of the mucous membranes (Anu & Sujatha, 2014, pp. 39-48).

Ancient healers declared cabbage as powerful and as having moon power whereas Modern nutritional science understands its power comes from its high Sulphur and vitamin C content. (Herrington, 2014)

Steam inhalation with cabbage leaves gives following effects:

1. It helps to ease inflammation of the joints.
2. Cures headache by eating raw cabbage.
3. Is an excellent home remedy for obesity because cabbage contains a chemical called tartaric acid, which inhibits the conversion of sugar and other carbohydrates into fat.

4. Just one cup supplies 91 percent of the recommended daily amount for vitamin K and 50 percent of vitamin C (Scioneaux, 2014).

The study aims at finding the effectiveness of normal steam inhalation and steam inhalation with cabbage leaves to manage the symptoms of common cold, cough and relief from headache among nursing students.

Review of literature

Literature review will be done under following headings:

1. Literature related to cabbage leaves.
2. Literature related to comparative studies of steam inhalations.
3. Literature related to the effectiveness of cabbage leaves in managing common cold, cough and headache.

Literature Related to Cabbage Leaves

An Interventional comparative study conducted by Zagloul et al (2020) on fenugreek seed poultice versus cold cabbage leaves compresses for relieving breast engorgement. The 50 puerperal mothers were selected in each group with a purposive sampling technique. Regardless of the applied measures, the study result revealed a significant improvement in breast condition after intervention for both groups; among the fenugreek group than the cabbage group ($p < .05$). (p. 10)

Pipih Napisah, et al., (2021) conducted a study in the postpartum period on the effectiveness of 4 cabbage leaf compresses and the education on Lactation Management given the reduction in Breast Engorgement. A quasi-experimental study with a non-equivalent control group design. The total sample was 60 postpartum women, 30 in each group. A purposive sampling technique was used. The study was effective at 77.56%.

Boh Boi, Serena Koh, Desley Gail (2019), conducted a quasi-experimental study. A quasi-randomized technique was utilized on Postpartum lactating mothers aged 13 to 50 years. The result revealed that there is a significant reduction in pain scores for both room temperature 2.0 points (37%) and chilled cabbage leaf 2.1 points (38%) ($p=0.0001$). No statistical difference in mean pre and post-treatment scores of room temperature and chilled cabbage leaf ($p=0.84$).

Literature Related to Comparative Studies of Steam Inhalations

Kamble et al., (2017), conducted an experimental study on effectiveness of steam inhalation v/s tulsi leaves inhalation on symptoms of cold and cough among an adult group. Total samples were 30 which were selected using the non-probability purposive sampling technique. This concludes that, instead of plain steam inhalation, if the clients suffering from cough and cold take steam with the extract of the tulsi leaves they would recover fast.

A study conducted by Sindhu Jose (2019), assessed the level of common cold among school-going children by providing steam inhalation with turmeric powder and the tulsi leaves. Children were reassessed for the level of common cold and associated the findings with the demographic variables. The study revealed that steam inhalation with the tulsi leaves and turmeric powder showed a reduction in the level of common cold among school-going children.

Literature Related to the Effectiveness of Cabbage Leaves to Manage Common Cold, Cough and Headache

Chaitu (2017), published an article on "5 Benefits of Cabbage as Medicine." The article shows that the cabbage leaves give relief from frequent headaches. Frequent headaches usually occur due to nutrition deficiency, stress, tiredness, etc. Cabbage is rich in vitamins like C, K, and calcium etc. These vitamins work together to reduce the deficiency and relieve frequent headaches. Take a medium sized cabbage and take the leaves in an inner portion which contain some moisture and clean with fresh water. Now place the leaves over your legs and chest before going to sleep. The vitamins present in the leaves can reduce stress and help you to get rid of frequent headaches.

Drx Hina Firdous (2020), had published an article on health "Benefits of Cabbage, Uses and Its Side Effects." The article shows that cabbage acts as an anti-inflammatory agent Cabbage leaves contain cadmium-binding complexes in its leaves and one of its main components is glutamine. Being a strong anti-inflammatory, glutamine present in cabbage helps to reduce the effects of various types of inflammation, irritation, allergies, joint pain, fever, and various skin disorders. Furthermore, cabbage can be used to treat constipation, stomach ulcers, headache, obesity, skin disorders, eczema, jaundice, scurvy, rheumatism, arthritis, gout, eye disorders, heart diseases, aging, and Alzheimer's disease.

Objectives

1. To assess the symptoms of common cold, cough, and headache in the control and experimental group before administering intervention.
2. Finding the effectiveness of steam inhalation with cabbage leaves in managing the symptoms of common cold, cough, and relief from headache in the experimental group.
3. Finding the effectiveness of normal steam inhalation in managing the symptoms of common cold, cough, and relief from headache in the control group.
4. To compare the results between the two groups before administering intervention to manage the symptoms of the common cold, and cough and relieve headache.
5. To associate demographic variables and the post-test results in the experimental group after the administration of intervention.

Hypothesis

H0 (Null Hypothesis): There won't be a significant effect of steam inhalation with cabbage leaves than normal steam inhalation to manage common cold, cough and to relieve headache on selected samples.

H1 (Research Hypothesis): There will be a significant effect of steam inhalation with cabbage leaves than normal steam inhalation to manage common cold, cough and to relieve headache on selected samples.

Variables

Independent variable: Steam inhalation therapy with or without cabbage leaves.

Dependent variable: Symptoms of common cold, cough and headache.

Research Methodology

Research Approach: Quantitative – Qualitative integrated approach

Research Design: Quasi-experimental 2 group pre-test and post-test design with a control group and experimental group

Target population: Age group between 18 years to 35 years studying in the nursing course with symptoms of common cold, cough, and headache who want to participate in the study in a selected Nursing Institute of a metropolitan city.

Accessible Population: Nursing students with symptoms of common cold, cough and headache who want to participate in the study from Seva mandal education Society's Smt. Sunanda Pravin Gambhirchand College of Nursing, Mumbai.

Sample size: 30 samples 15 in experimental and control groups with the same age group and gender.

Sampling Technique: Non-probability purposive sampling technique.

Tools of Research: Semi-structured interview schedule is preferred to collect demographic data with each sample. Then samples from each group (Control and experimental) were given an Observation checklist and rating scale. Data was collected on the Self-reported method from the period (September to October 2022).

Method of Data Analysis and Presentation: Descriptive and Inferential Statistics data in the form of tables and figures.

Results and Discussion

The home-based steam inhalation therapy with plain water and cabbage leaves among people in relieving signs and symptoms of common cold, cough, and the headache was effective. As per the objectives of the study, the collected data was organized and interpreted using descriptive and inferential statistics, coding, and analysis.

The study reveals that the calculated t value of 5.79 of the experimental group was more than the calculated t value of 4.52 of the control group which was highly significant at $p<0.05$ level. Therefore (H1) is accepted with a significant effect of steam inhalation with cabbage leaves than normal steam inhalation to manage common colds, and coughs and in relieving headaches among nursing students. There is no correlation between selected demographic variables and post-test results after the administration of intervention.

Limitations

The study is limited to only 30 samples. Study results are limited to nursing students who are studying in selected nursing institutes. The data collection period was limited to 4 weeks.

Recommendations

Nursing Administration

The nurse administrators initiate the organization of continuing education, and in-service education programs in managing common colds, and coughs and relieving headaches at home and in community centres.

Nursing Services

The home-based steam inhalation therapy with cabbage leaves will be effectively used by the community health nurse in reducing common colds, and coughs and relieving headaches.

Nursing Education

Reinforcement for practicing simple cost-effective home management by nurse educators in reducing the symptoms of common cold, cough and to relieve headaches at home and in community centres.

Nursing Research

Emerging researchers can use these findings for their reference purpose. Further research to measure the effectiveness of tulsi leaves or medicated home-based steam inhalation therapy on the common cold, cough, and headache.

Conclusion

Steam inhalation with cabbage leaves found to be more effective than normal steam inhalation in managing the common cold, and cough and relief from headaches.

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