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Effectiveness of Curry Leaf and Mint Decoction on Indigestion among Geriatric Clients at Kondancherry Village, Thiruvallur District

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ABSTRACT

The prevalence of digestive problems in older people and its link to hospitalization and death in older people living in the community are both poorly understood. The primary sign of ageing is the gradual loss of physiological integrity, which results in dysfunction and increased mortality risk. A Quasi-experimental research design and convenience sampling technique was adopted. 60 Geriatric samples with upper gastrointestinal tract problems were selected. Out of which 30 samples were within the experimental group and remaining 30 under control group. The objectives of the study were to assess the level of indigestion among geriatric clients, to assess the effectiveness of curry leaf and mint decoction on indigestion among geriatric clients and to associate the posttest level of indigestion among geriatric clients with selected demographic variables. The study was conducted at Kondancherry village, Thiruvallur district, Tamil Nadu. Pretest was conducted for both the experimental and control group. Demonstrated the control samples with, how to prepare a drink using curry leaves and mint decoction to experimental group and conducted post-test for both the experimental group and control group after seven days of interval. The investigator found that the demographic variable marital status **(χ^2=8.103, p=0.044)** had shown statistically significant association with posttest level of indigestion among geriatrics at $p<0.05$ level. This type of study can be conducted among large samples.

KEYWORDS: *Effectiveness, curry leaves, mint decoction, geriatric, indigestion*

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INTRODUCTION

Ageing is a typical process of time-related change that starts at birth and lasts the entirety of a person's life. If suitable community-based support services are available, older individuals are more likely to preserve excellent health and functional independence. In-home care and corrective procedures are an alternative to hospitalization for elderly patients experiencing physiological issues.

Dyspepsia literally translates to "difficult digestion" and is formed from the Greek terms dys and pepse. Organic factors can induce dyspepsia, although the majority of individuals have functional dyspepsia (FD). With symptoms including epigastric pain, postprandial fullness, early satiety, anorexia, belching, nausea and vomiting, upper abdominal bloating, and even heartburn and regurgitation, it is roughly characterized as pain or discomfort that is localized in the upper abdomen.

In adults, digestive problems are typical. The prevalence of digestive problems in older people and its link to hospitalization and death in older people living in the community are both poorly understood.

The primary sign of ageing is the gradual loss of physiological integrity, which results in dysfunction and increased mortality risk. The bulk of human diseases, such as cancer, diabetes, cardiovascular problems, and neurological diseases, are at high risk due to this degeneration. The old population is now classified as those above the age of 65, although as

life expectancy rises, this cutoff point may be raised in the future. 7.8% of the population in Turkey is over 65, compared to 21.5% in Germany and 14.5% in the United States. By 2050, 17% of the world's population is projected to be beyond the age of 80. All gastrointestinal system (GIS) processes, including motility, enzyme and hormone release, digesting, and absorption, are impacted by ageing. Additionally crucial to medicine absorption is the GIS.

Alessandra Maciel ALMEIDA, et al., (2017), describes that According to medical literature, 15% to 40% of people experience dyspepsia and heartburn-related symptoms. These symptoms are more common in women and can appear at any age. Analyze the frequency of heartburn and dyspepsia in people over the age of 18. Randomly chosen participants over the age of 18 were found in Belo Horizonte/MG public places. A standardised questionnaire was used, which asked questions on co-morbidities, past surgeries, medications, medical appointments, dietary habits, digestive problems, and lifestyle choices. Rome III, a questionnaire for the diagnosis of functional dyspepsia, was also used. 548 people in all were questioned. Among them, the average age was 36 years old, 58.4% of them were women, 59.3% were white, and 55.9% were single. Within this sample, 376 people (68.6%) admitted to having dyspepsia symptoms and/or using medicine to treat them. For these patients, the Rome III questionnaire was used. According to the Rome III consensus' proposed diagnostic criteria for the questionnaire, 6.7% of respondents felt postprandial fullness, 3.5% reported early satiety, and 10.6% reported epigastric pain. These symptoms often overlapped one another. Functional dyspepsia was 10.6% prevalent, with postprandial discomfort syndrome being 8.2% and epigastric pain syndrome being 2.4%. 52.5% of individuals overall reported having heartburn, and 11.1% experienced it at least once per week. Omeprazole was the medication that was most frequently utilised. Similar to other countries, Brazil's adult urban population experiences dyspeptic symptoms and heartburn frequently.

Dayana. (2020), One of the frequent gastrointestinal problems in both industrialised and developing nations is gastroesophageal reflux disease (GERD). The two main GERD problems are esophageal adenocarcinoma and Barrett's oesophagus. The study examined the impact of a structured education programme on patients' knowledge of the management and prevention of complications of gastroesophageal reflux disease (GERD) using a quantitative research approach and a pre-experimental one group pre-test post-test design. Through the use of non-probability purposive sampling, a total of 60 Samples were chosen. A semi-structured questionnaire was used for a pretest, after which a structured lesson plan was offered. The same samples were subjected to a post-test utilising the same semi-structured questionnaire. Prior to STP, no topic had an adequate level of knowledge score, and 76.7% of the subjects had an inadequate level. However, following the effective STP's educational approach, none of the patients had a score for their level of knowledge that was insufficient, 16.7% had a score that was moderate, and 83.3% had a score that was adequate. With relation to the management and prevention of GERD issues, post-test level of knowledge scores for older and more educated respondents were substantially correlated. The study demonstrated that STP was extremely helpful for GERD patients who visited the gastroenterology outpatient department at RGGGH, Chennai (2=58.00 at P=0.001 level of significance). The objectives of the study were to assess the level of indigestion among geriatric clients, to assess the effectiveness of curry leaf and mint decoction on indigestion among geriatric clients and to associate the posttest level of indigestion among geriatric clients with selected demographic variables.

MATERIALS AND METHODS

A Quasi-experimental research design through Non-Probability convenience sampling technique was adopted. 60 Geriatric samples above 60 years of age with upper gastrointestinal tract problems were selected. Out of which 30 samples were within the experimental group and 30 geriatric samples within the control group. The setting of the study was kondacherry village, Thiruvallur district. Data was collected using demographic variable and clinical variables. Pretest was conducted for both the experimental and control group. Demonstrated the control samples with, how to prepare a drink using curry leaves and mint decoction to experimental group and conducted post-test within the experimental group after seven days of interval. However only pre-test was conducted and no intervention given, only observed for the signs and symptoms and posttest results obtained after 7 days. Informed consent was obtained from the geriatrics and the purpose of the study was explained to the samples. Confidentiality of shared information was assured. The demographic characteristics and data pertaining to indigestion were collected by using the tool constructed for the study. It took 20 to 25 minutes to complete the data collection from a sample. The data collected were then coded and entered in Excel for further data analysis and interpretation. The study was summarized using mean

and standard deviation. Statistical significance was calculated by using student's paired't' test. Pre-test and post-test was calculated using Generalized McNemar's chi-square test. The association between post-test values and their demographic variables was calculated using Pearson chi-square test.

RESULTS AND DISCUSSION

Pre-test was conducted using semi-structured questionnaire among the geriatrics, 18(60%) were aged between 60-65 years, 17(56.7%) were male, 19(63.4%) had known Tamil language, 15(30%) were married, 25(83.3%) had non-consanguineous marriage, 18(60%) were Hindus,20(66.7%) had undergone schooling, 23(76.7%) belonged to nuclear family, 20(66.7%) were living in pucca house, 14(46.6%) had on child, 27(90%) had spouse in the same old age home and 18(60%) were staying in the home for 2 – 3 years. The bar diagram shows that in the pretest, 17(56.67%) had moderate level of indigestion and 13(43.3%) had severe indigestion and whereas in the posttest, 30(66.67%) had mild indigestion and 10(33.33%) had moderate indigestion.

The table 1 shows that the pretest means score of indigestion score was 13.70±2.59 and the posttest mean score was 8.33±2.32. The calculated paired 't' test value of t = 27.569 was found to be statistically significant at p<0.001 level which clearly infers that curry leaf and mint decoction on indigestion administered among the geriatrics was found to be effective in reducing the level of indigestion in the posttest.

The table 2 shows that the demographic variable marital status **(χ^2=8.103, p=0.044)** had shown statistically significant association with posttest level of indigestion among geriatrics at p<0.05 level and the other demographic variables had not shown statistically significant association with posttest level of indigestion among geriatrics. This objective of investigator's study is consistent with the study of Kumar VV et al., 2020, who focused comparative study of Bacillus coagulans GBI-30,6086 with digestive enzymes in improving indigestion in geriatric population.

Figure1: Percentage distribution of pretest and posttest level of indigestion among the geriatrics

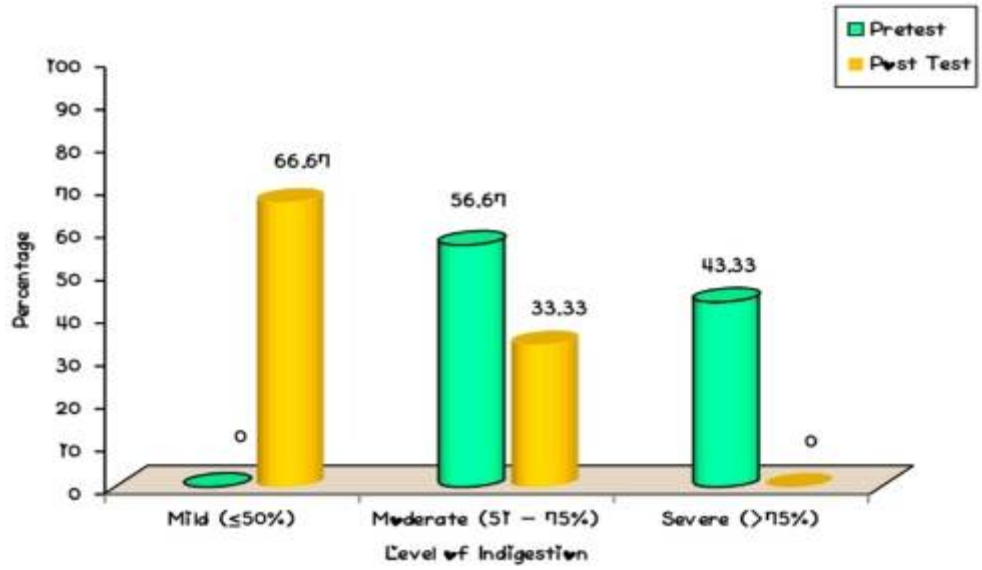

Table 1: Comparison of pretest and posttest level of indigestion among geriatrics.

Indigestion	Mean	S.D	Paired 't' Test & p-value
Pretest	13.70	2.59	**t = 27.569**
Posttest	8.33	2.32	**p=0.0001, S*** **

***p<0.001, S – Significant

Table 2: Association of posttest level of indigestion among geriatrics with selected demographic variables.

Demographic Variables	Frequency	Chi-Square & p-value
Age in years		χ^2=1.750 d.f=3 p=0.636 N.S
60 – 65 years	18	
66 – 70 years	8	
71 – 75 years	3	
Above 75 years	1	

Demographic Variables	Frequency	Chi-Square & p-value
Gender		χ^2=0.068 d.f=1 p=0.794 N.S
Male	17	
Female	13	
Language known		χ^2=2.707 d.f=3 p=0.439 N.S
Tamil	19	
Telugu	7	
Hindi	1	
Others	3	
Marital status		
Married	15	**χ^2=8.103 d.f=3 p=0.044 S***
Unmarried	2	
Widow / Widower	10	
Divorced / Separated	3	
Type of marriage		χ^2=3.000 d.f=1 p=0.083 N.S
Consanguineous	5	
Non- consanguineous	25	
Religion		χ^2=1.750 d.f=2 p=0.417 N.S
Hindu	18	
Christian	9	
Muslim	3	
Others	-	
Educational status		χ^2=1.971 d.f=2 p=0.373 N.S
Schooling	20	
Graduate	7	
Illiterate	3	
Type of family		χ^2=0.373 d.f=1 p=0.542 N.S
Nuclear	23	
Joint	7	
Type of house		χ^2=4.125 d.f=3 p=0.248 N.S
Pucca	20	
Semi pucca	3	
Thatched	2	
Roof	5	
Number of children		χ^2=1.698 d.f=3 p=0.637 N.S
No child	5	
One child	14	
Two children	8	
More than two children	3	
With spouse in the same old age home		χ^2=1.667 d.f=1 p=0.197 N.S
Yes	27	
No	3	
Duration of stay in the home		χ^2=3.250 d.f=3 p=0.355 N.S
Less than 1 year	1	
2 – 3 years	18	
4 – 6 years	8	
More than 6 years.	3	

*p<0.05, S – Significant, N.S – Not Significant

CONCLUSION

The study determined that the effect of curry leaf and mint decotion on indigestion among geriatric with indigestion has a good impact on signs and symptoms. Based on findings it was evident that curry leaf and mint decoction significantly reduced the level of signs and symptoms of indigestion.

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AUTHORS CONTRIBUTION

All the authors actively participate in the work of study. All the authors read and approved the final manuscript.

CONFLICTS OF INTEREST

The authors declare no conflict of interest

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