



ORIGINAL RESEARCH PAPER

Chemistry

AN ANALYTICAL STUDY OF AWARENESS ABOUT AROMATHERAPY AS ORIENTAL MEDICINE

KEY WORDS: Aromatherapy, Essential oils, Oriental medicine, Hypersensitivity, Pilot study

Sarika Chhabria Talreja

Assistant Professor, Department of Chemistry, Smt. Chandibai Himathmal Mansukhani College, Ulhasnagar 421 003, Thane, Maharashtra, University of Mumbai

ABSTRACT

The present study is an initiative to create awareness about aromatherapy as an oriental medicine for human health and development. Aromatherapy is an art and science of using essential oils to enhance physical and emotional well-being. Essential oils are concentrated hydrophobic liquids containing volatile aroma compounds extracted from plants typically by repeated distillation process. They smell wonderful, uplift our spirits, possess aphrodisiac qualities and promote overall wellness maintaining the balance and harmony of body and mind. However, they may cause hypersensitivity reactions in body. Examples include oils of Lavender, Peppermint, Eucalyptus, Chamomile, etc. The paper is based on an empirical pilot study conducted by following descriptive research design with a modest sample size using random sampling in a suitable geographical location. A pre-structured questionnaire centered on the availability, validation, beneficial and detrimental effects of essential oils, was administered as research tool for the survey to record feedback from respondents. The data collected was analyzed and is presented herewith.

1. Introduction:

Aromatherapy is the practice of using natural oils extracted from plant sources viz. flowers, bark, stems, leaves and roots, to enhance the physical, physiological and psychological well-being. The inhaled aroma from the essential oils is widely believed to stimulate brain function and emotional arousal. It can be offered as a complementary therapy along with the conventional evidence-based treatments.

Essential oils are concentrated hydrophobic liquids containing volatile aroma compounds obtained from plants. The term essential doesn't mean indispensable; it becomes essential as it contains 'essence' of the plant's fragrance from which it is derived. Examples include Oils of Lavender, Tea tree, Lemon, Peppermint, Eucalyptus, Clove, Chamomile, Grapefruit and Oregano. They are typically obtained by rigorous distillation process and hence are quite expensive. Other methods include mechanical expression and solvent extraction using organic solvents or supercritical carbon dioxide. Essential oils are usually lipophilic, hence diluted with organic solvents like ethanol or polyethylene glycol and used. Essential oils smell wonderful, uplift our spirits and are known to promote overall wellness through pharmacological effects as well as the influence of aroma on brain through the olfactory system. However, hypersensitivity and phototoxic reactions or contact dermatitis induced by exposure to concentrated aroma oils combined with the lack of good medical evidence of its therapeutic benefits makes the therapy, pseudoscientific.

2.Objectives:

- To gauge the level of awareness amongst the people about Aromatherapy and Essential oils.
- To study the perception of people towards Aromatherapy as Oriental Medicine and to create awareness about the same.
- To focus on the availability, action mechanism, authenticity, importance, beneficial and detrimental effects of essential oils.
- To perform statistical analysis of the data collected from the survey.

3. Limitations of the Study:

Though the research study has been designed carefully, it is subject to following limitations:

1. The study is limited to a small geographical area and therefore results cannot be generalized.
2. The study has been restricted to 50 respondents due to limited time span.
3. The study being primary one, the accuracy and reliability of data depends upon the information provided by respondents.
4. The respondent's views and opinions may hold good for time being but may vary in future.

4.Research Methodology:

The data for the present study was collected from both, primary and secondary sources. The operational technique of Primary & Secondary Data Collection was rationalistic & designed in 3 stages. A cross sectional study was conducted for two months. Teachers who gave consent for participating in the study were included. Study was started after taking permission and clearance from the authorities.

- Pre-Field Method: Includes collection of secondary data from various Books, Periodicals, reputed Journals, Internet Websites and related articles.
- Field Method: A questionnaire including 22 questions centered on the availability, properties, validation, usage and detrimental effects of essential oils was prepared. Necessary corrections, additions and deletions were made in the questionnaire in line with the expert opinion and it was administered to the respondents.

Post-Field Method:

- Desk Research
- Scanning & reviewing the literature on the subject
- Tabulation and Analysis of the data collected from various sources that is collated and presented herewith.

Criteria developed for Investigation:

- Research Design: Descriptive (Quality of responses considered)
- Sample Size: 50 Respondents
- Universe/ Geographical area of study: Smt. C.H.M College, Ulhasnagar
- Nature of Sampling: Random Sampling
- Research Tool: Pre-structured and validated questionnaire used as data collection instrument
- Contributors/ Personnel chosen: Faculty members from different Departments
- Nature of Population: Heterogeneous (Male and Female)
- Period of Study: Two months (July 2016 to August 2016)
- Exclusion Criteria: Respondents less than 30 yrs and more than 60 years of age

5. Analysis and Interpretation:

[5.1] Summary Statistics of Respondent's Demographic Characteristics:

- Out of 50 respondents, 10 (20%) were males and 40 (80%) were females.
- Age group analysis indicated that 16 (32%) respondents were in the age group of 30-40 years followed by 18 (36%) in the age group of 41-50 years and 16 (32%) in 50-60years of age group.

- Educational category wise comparison of the respondents revealed that 26 (52%) respondents were only Post-graduates while 24 (48 %) respondents were Ph.D. holders.
- Out of 50 respondents, 44 (88%) were married while 06 (12 %) were unmarried.
- Designation wise, 30 (60%) were Assistant Professors, 08 (16%) were Associate Professors, 08 (16%) Head of various Departments, 03 (6%) Vice Principals and 01 (2%) Principal.
- Faculty wise analysis showed that 22 (44%) of the respondents were from Science Departments, 10 (20 %) from Commerce and 18 (36%) from Arts Departments.

Table – 1 Classification of Respondents according to their Demographic Profile:

Sr. No.	Variables	Categories	Total Respondents	Percentage
1.	Age	30 - 40 years	16	32%
		40 - 50 years	18	36%
		50 - 60 years	16	32%
		Total	50	100%
2.	Gender	Male	10	20%
		Female	40	80%
		Total	50	100%
3.	Marital Status	Married	44	88%
		Unmarried	06	12%
		Total	50	100%
4.	Qualification	Only Post graduate	26	52%
		Ph.D.	24	48%
		Total	50	100%
5.	Designation	Principal	1	2%
		Vice Principals	3	6%
		Head of Departments	8	16%
		Associate Professors	8	16%
		Assistant Professors	30	60%
6.	Faculty	Science	22	44%
		Commerce	10	20%
		Arts	18	36%
		Total	50	100%

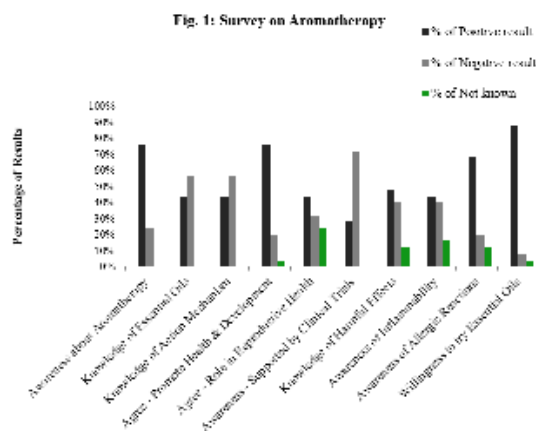
[5.2] Summary Statistics of the Survey Findings: Data analysis of the survey revealed that;

- 38 (76%) of the sample population is aware of aromatherapy while 12 (24%) is unaware.
- 22 (44 %) had some knowledge of essential oils while 28 (56 %) had absolutely no knowledge.
- 22 (44%) knew about their action mechanism of essential oils while 28 (56%) had no idea about how they work.
- 38 (76%) agreed that essential oils promote overall health and development, 10 (20%) didn't agree while 02 (4%) were clueless.
- 22 (44%) agreed about their role in reproductive health, 16 (32%) did not agree while 12 (24%) comment on the role.
- 24 (48%) agreed that essential oils can have harmful effects on human body, 20 (40%) didn't agree while 06 (12%) people said that they don't know.
- 34 (68%) said they are aware about the fact that essential oils cause allergic reactions in body, 10 (20%) said that they are not aware while 06 (12%) said that they can't comment.
- 36 (72%) said that they had no idea whether the therapy is supported by certified clinical trials while 14 (28%) said that they are aware.
- 22 (44%) were aware about their inflammability, 20 (40%) were unaware while 08 (16%) said that they can't comment.
- 44 (88%) expressed their willingness to try the application of essential oils and undertake aromatherapy in future for their ailments, 04 (8%) expressed their unwillingness and said that they don't intend or wish to try them in future while 02 (4%) said that they are not sure about it.

Table – 2: Summary Statistics of the Survey Findings

Sr. No.	Question	Options								Total	
		Yes		No		Don't know		Can't say			
		No.	%	No.	%	No.	%	No.	%	No.	%
1.	Awareness about Aromatherapy	38	76 %	12	24 %	--	--	--	--	50	100 %
2.	Knowledge of Essential Oils	22	44 %	28	56 %	--	--	--	--	50	100 %
3.	Knowledge about their action mechanism	22	44 %	28	56 %	--	--	--	--	50	100 %
4.	Agree that essential oils promote overall health and development	38	76 %	10	20 %	--	--	2	4 %	50	100 %
5.	Agree about their role in reproductive health	22	44 %	16	32 %	12	24 %	--	--	50	100 %
6.	Knowledge about the therapy being supported by certified clinical trials	14	28 %	36	72 %	--	--	--	--	50	100 %
7.	Knowledge about their harmful effects	24	48 %	20	40 %	6	12 %	--	--	50	100 %
8.	Awareness about inflammability	22	44 %	20	40 %	--	--	8	16 %	50	100 %
9.	Awareness about the allergic reactions in body	34	68 %	10	20 %	--	--	6	12 %	50	100 %
10.	Willingness to try any essential oil in future for any of the ailments	44	88 %	4	8 %	--	--	2	4 %	50	100 %

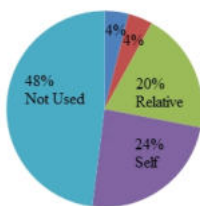
The results for the same are presented in the form of Histogram given below:



Suggestion to use essential oils:

Out of the 50 respondents, 24 (48%) said that they have never used any essential oils, 10 (20%) said that were suggested by their relatives while 02 (4%) said that they used it on their friend's suggestion. 02 (4%) said that they were suggested by their Doctor for some common ailments while 12 (24%) said they opted to use it as self-medication.

Fig. 2: Pie-chart for Suggestion to Use Essential Oils



Purchase Source:

16 (32%) of respondents had purchased essential oils from Medical shop and 10 (20%) from General Store. None of the respondents had purchased them online or from an aromatherapy center, while 24 (48%) had not used them at all.

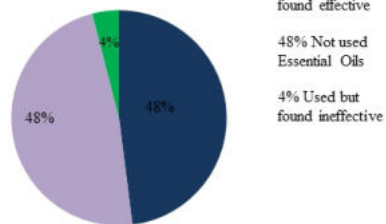
Fig 3: Pie-chart for Purchase Source



Usage of Essential Oils:

Out of the 50 respondents, 24 (48%) said that they have used essential oils and have found them effective. 02 (4%) said that they have used it but found them ineffective while 24 (48%) had not used them at all for any of their ailments.

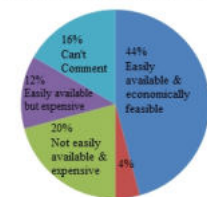
Fig. 4: Pie-chart for Usage of Essential Oils



Opinion about their Availability and Economic Feasibility:

The chart shows that 22 (44%) opined that essential oils are easily available and economically feasible, 02 (4%) feel that they are not easily available but are economically feasible, 10 (20%) opined that they are not easily available and are quite expensive, 08 (16%) feel that they expensive although easily available while 08 (16%) said that they can't comment on it.

Fig. 5: Pie-chart for Opinion about Availability and Economic Feasibility



6. Conflict of Interest:

The author declares that there is no conflict of interest.

7. Acknowledgements:

Author would like to thank Smt. C.H.M College for its infrastructural, moral and material support.

8. Conclusion:

The research showed that there is lack of awareness about aromatherapy among people although it has started gaining

momentum as oriental and alternative medicine for a number of common health issues. However, majority of the respondents were convinced about their use for palliative care. The study outcome elicited that majority of the people are not still aware of the harmful effects of essential oils like inflammability and hypersensitivity reactions.

This study was a miniscule step towards the awareness program consigning to the contemporary allied drug free therapies. However it can be conducted using a larger sample size and comparative studies between different groups of people can be done. Orientation lectures and awareness workshops can be organized to educate the judicious use of aromatherapy for several common ailments and detrimental effects of essential oils.

Essential oils are natural, eco-friendly and generally recognized as safe products Therefore, plants and their extracts have the potential to become new generation substances for human health provided there is ample medical evidence for the same. The study warrants the isolation of active principles in the essential oils and a systematic study by certified clinical trials.

9. References:

1. Edris, Amr E. (2007); 'Pharmaceutical and Therapeutic Potentials of Essential Oils and their individual Volatile Constituents: A Review'. *Phytotherapy Research*; 21(4): 308-323.
2. Posadzki P., Alotaibi A., Ernst E. (2012) – 'Adverse Effects of Aromatherapy: A Systematic Review of Case Reports and Case Series'. *International Journal of Risk and Safety in Medicine (Systematic review)*. 24(3): 147-161.
3. Ericksen, Marlene. (2000) - *Healing With Aromatherapy*. New York: McGraw-Hill. p. 9. ISBN 978-0-65-800382-0.
4. Singh G., Kapoor I.P.S., Pandey S.K., Singh U. K., Singh R.K., (2002) – 'Studies on Essential Oils: Part 10; Antibacterial activity of Volatile Oils of some Spices'; *Phytotherapy Research*; 16(7): 680–682.
5. Greeshma T. M, Syed Fazal Mahamood, S. Padmanabha (2017) – 'A Questionnaire Study on Patient Satisfaction and Experience with Anesthesia Care and Services in Yenepoya Medical College and Hospital, Mangalore'; *ParipeX Indian Journal of Research*; 6(5): 26–29.
6. Millet Y., Jouglard J., Steinzmetz M. D., Tognetti P., Joanny P., Arditti J. (1981) 'Toxicity of Some Essential Plant Oils; Clinical and Experimental Study'; *Clinical Toxicology*; 18(12): 1485–98.