

Consumer Behavior in Selection of Buying Source of Siddha Medicine in Tamilnadu, India from the Perspective of Age

A. Krishnan,^{1*} P. Bagyalakshimi,² S. Ramya,³ and R. Jayakumararaj³

¹PG and Research Department of Commerce, Government Arts College, Dharmapuri - 636705, TN, India.

²Department of Computer Science, Government Arts College, Dharmapuri - 636705, TN, India.

³Department of Botany, RD Government Arts College, Sivagangai - 630561, TN, India.

*Corresponding author: Prof. Krishnan, PG and research Department of Commerce, Government Arts College, (Periyar University, Salem), Dharmapuri - 636705, TN, India. Phone: +91 4343 230008, Email: krishdr_66@yahoo.co.in

Issued 01 December 2008

ABSTRACT

With the increasing usage of traditional medicines as complementary alternative therapy, possibilities that would ensure its successful integration into the public domain of health care services needs to be evaluated. India is one of the countries with rich traditional knowledge base. Its ethnic ethno-medical practices had paved way for the evolution of several indigenous systems of medicine. Siddha is one of the oldest systems of medicine in India. Siddha holds close association with nature and has been validated in the laboratory of life, even before the advent of formal modern western system of medicine. This paper discusses the interrelations between usage of Siddha as complementary alternative medicine and its implications on public health care related issues. We explore the impact of age of respondents in the public domain as a criterion in relation to selection of buying source of Siddha medicine in Tamilnadu, India.

KEYWORDS: Siddha Medicine; Consumer Behavior; Buying Source; Practitioners; Complementary Alternative Therapy; Age Group.

INTRODUCTION

According to WHO (1998) traditional medicine (TM) in India is a comprehensive term used to refer Ayurveda, Arabic, Unani, Homeopathy, Siddha and various forms of indigenous medicine. TM is often termed "complementary", "alternative" or "non-conventional" medicine (WHO, 2002). Practices of traditional medicine vary greatly from country to country, and from region to region, as they are

strongly influenced by factors such as culture, history, personal attitudes, philosophy and above all the availability of biological resources (Gesler, 1992). The relationship between TM and the biotic environments may be seen in the health benefits derived from the existence of a full complement of species, intact watersheds, climate regulation and genetic diversity, as well as through fundamental needs for food, water, clean air, shelter and relative climatic constancy. Debates on links between TM and biodiversity therefore are imperative, particularly when considering the importance of the importance of former as a source of primary health care to 80 percent of the world's population (Anyinam, 1995). Connections between environmental and human health have been addressed by McMichael and Beaglehole (2000). Accordingly, sustained health requires enlightened management of social resources, economic relations in relation to the natural resources. However, many of the present day public-health issues have their roots in the same socioeconomic inequalities and imprudent consumption patterns that jeopardize the future sustainability of health (Bodeker and Kronenberg, 2002).

Long historical use of many practices of traditional medicine, including experience passed on from generation to generation, has demonstrated the safety and efficacy of traditional medicine (CSIR, 1996). It is the sum total of knowledge, skills and practices based on theoretical knowledge, beliefs and experiences indigenous to different cultures. Whether explicable or not, TM is used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illnesses (WHO, 1998). Therefore, scientific research is needed to provide supportive evidence to safety and efficacy of the complimentary alternative therapy (Krishnan et al., 2008).

In India, many traditional and codified systems of medicines are being practiced; many of such systems of medicine have not properly been documented (CSIR, 1996). A great deal of folk knowledge exists among ethnic people about the traditional use of herbal medicines. However, such systems of medicine were in the grip of prejudice during the period of colonial rule in India. Many of the indigenous system of medicine got vanished during the rule without leaving any trace; many more are restricted to the rural places (Bhargava, 1992). Since, most practitioners formulate and dispense their own recipes and made significant contributions towards fulfilling the health care needs, it is difficult to quantify the market size of the traditional medicine (Haddad, 1998).

Siddha has been prevalent in the ancient Tamil land, is the foremost of all other medical systems in the world. Its origin dates back to BC 10,000 to BC 4,000. Siddhars contributed significantly towards the development of this system of medicine (Sambasivapillai, 1931). Siddha is largely therapeutic in nature. Originated in Tamilnadu it is practiced exclusively in the state and adjoining parts of the neighboring states. Siddha comprises of Alchemy, Philosophy, Yoga, Mantra and Astrology (Manickavasagam, 1978; Pillai, 1979). Siddha is effective in treating chronic cases of liver,

skin diseases, rheumatic problems, anaemia, prostate enlargement, piles and peptic ulcer. It has been proven effective in treating several venereal diseases and AIDS (Haddad, 1998).

Siddha Medicine uses five elements (earth, water, fire, air and ether) develop six tastes (sweet, sour, pungent, salt, spice and astringent). These six tastes conjugate with one another and build three humors (Vali, Azal and Iyyam) of the body. Imbalances in these three humors cause the ailments or make man susceptible to diseases. This is said to be the fundamental rule of Panchapoothic Panchikarna Theory of Siddha philosophy (Manickavasagam, 1978). Siddhars have classified food into three kinds namely vatha, pitha and kapa. By balancing the diet one can be away from disease and cure illness. Siddhars pointed out that by taking food in correct proportion of taste, one can lead disease free life. Further, they advocated that one should be careful about food. Based on this fact it has been said that “food is medicine and medicine is food”. Since, Siddha is a natural system of medicine; it has natural remedies for all ailments. The curing of ailments is slow but remedy is permanent without any side effects. Siddha uses herbs, minerals, metals, salts and organic substances in its formulations (Hausman, 1996).

The annual turnover of traditional medicinal products in 1991 was estimated to be approximately 300 million \$, compared to a turnover of approximately 2.5 billion \$ for modern drugs (WHO, 2002). According to Rajagopalan (1991) attitude of modern medicine practitioners towards traditional medicinal products is very poor. General practitioners are relatively unfamiliar with traditional medicinal products. However, it has been reported that public resort to traditional medicinal product if its efficacy is scientifically proven, or if no modern medicinal remedies were available for a particular disease. Invariably, people use Siddha for treatment of minor ailments such as cough, cold, diarrhoea and stomach problems (CSIR, 1996). Nevertheless, Siddha is yet to gain an empirical support of modern medical science to make it acceptable in public consumes.

Consumer behavior is the study of how individuals make decision to spend their available resources (money, time and efforts) on consumption related items (Robert et al., 1968). It has been well established that socio-economic characteristics influence buying decisions (Richard, 1965; Andersen, 1968; Paul et al., 1987; Sarwade and Ambedkar, 2002). The system has been in service to humanity for more than five thousand years in combating diseases and maintaining physical, mental and moral health. Recently, there has been a resurgence of traditional medical systems the world over, based on the holistic nature of their approach to healing (WHO, 2002). The efficacy of indigenous systems has been proved in various contexts. They tend to use locally available, cost effective materials for treatment. Hence, usage of Siddha that has strong cultural and historical bonds with the people of Tamilnadu is becoming increasingly relevant. In a heterogeneous public domain, the behavior of Siddha medicine consumers is likely to be influenced by dynamic, economic, psychological and social

factors. Therefore, to analyze consumer behavior with reference to Siddha medicine, socio-economic status of the consumers and other factors that influence buying decision needs to be explored. The present study aims to examine the factors that influence the public across Tamilnadu to switch over to this traditional system of medicine to meet their health care needs.

METHODOLOGY

Hypotheses

It has been proposed that there exist a relationship between buying source and consumer attitude and usage of siddha medicine in Tamilnadu.

H₀1: There is significant difference between sources of buying and region.

Study Area

Tamil Nadu is located between 8.5° and 13.35° north latitudes and 76.15° and 80.20° East longitude covers an area of 1, 30,058 sq km. Bounded on the north by Andhra Pradesh and Karnataka, on the west by the Western Ghats and Kerala on the east, the state has coastline of about 1,000 km. Population of according to 2001 census is 6.02 million accounting for 6.6 % population of India, with a density of 429 as against the national average of 267 per sq km. The sex ratio is 974 females for 1000 males as against the national average of 929. The literacy rate is 63.72 % against the national average of 52.11%. The decennial growth of the population is 19.59 % as against the national average of 29.3 %.

Period of Study

The study was carried out in Tamilnadu, India for a period of one year during Jul 2007 to Sep 2008.

Pilot Study

In the present study, Siddha medicine consumers were selected. A pilot study with a view to find out suitability of information furnished in the interview schedule for consumers. The pilot study is undertaken with reference to 32 sample consumers from 4 regions each 8 in Tamilnadu viz., Chennai, Madurai, Trichy and Coimbatore. The respondents were with in the age group of 15 – 75 years.

Interview Schedule

A well structured interview schedule was used to evaluate the response from the consumers. The questions in the interview schedule was divided into three parts namely part I, part II and part III. The language in the interview schedules was simple, clear and free from technical terms. The questionnaire was bi lingual both Tamil and English and all the questions were objective so as to obtain unbiased response from the public.

Sampling Design

The entire state was divided into four regions viz., Chennai, Trichy, Coimbatore and Madurai.

Sampling was related to consumer respondents. As compared to allopathic medicine, consumers of Siddha medicine were less in number. Therefore, it was very difficult to identify the consumers of Siddha medicine. Hence, it was proposed to identify the consumers of Siddha medicine at Siddha hospitals, Siddha clinics and Siddha medical shops. Uniformly, 110 consumer respondents were selected from each region. Since, sample size was large and population chosen was a heterogeneous group from different parts of the state, purposive non-probability sampling method was used for collection of the data. The respondents were within the age group of 15 – 75 years. And the respondents were further classified into four groups viz., < 20 y, 20-40 y, 40-60 y and > 60 y

Collection of Data

In the present study both primary and secondary data have been used. Primary data was collected from the consumers (within the age group of 15 – 75 y) by employing an interview schedule.

Data Analysis and Statistical Tools

The study is exploratory and empirical in nature. The collected data were classified and tabulated with the help of statistical packages. Percentile and Chi-square Test were used for the analysis of the data.

RESULTS AND DISCUSSION

Data on rural healthcare depicts that more than 80% of people in India depend on plant based traditional medicine to meet their health care needs (MHFW, 2002; WHO, 2002). Studies have revealed that health services utilization in urban and rural India vary significantly (Yoder, 1989; Yesudian, 1989; WHO, 1998). It has been observed in the present study that consumers of Siddha medicines prefer different sources to purchase Siddha medicines, viz., medical agency, medical shop, medical practitioners and manufacturers. Respondent's behavior with respect to the influence of sources of buying Siddha medicines in different regions is presented in Table 1.

Data presented in Table 1 indicates the age-wise respondents' sources of buying Siddha medicine. More than 51.11% of the respondents below the age of 20 buy Siddha medicine exclusively from Siddha medical agencies. On the other hand respondents those who fall within the age group of 20 – 40 are influenced by Siddha medical practitioners. Likewise, more than 45% of the respondents that fall within the age group of 40 – 60 purchase the medicines directly from the Siddha medical shops. Majority of the respondents of third age group buy Siddha medicine in country medical shops. Nevertheless those who fall in the last category meet their needs either from the shops or through the practitioners. That is more than two-thirds of respondents in the last age group buy Siddha medicine either in country medical shops (38.46%) or from Siddha medical practitioners (42.31%).

From this study it is clearly evident that the respondents of above 40 years mainly want to buy Siddha medicine in country medical shops or from Siddha medical practitioners. The computed chi-

square value is 129.9, which is greater than its tabulated value at 1 per cent (21.7) level of significance, with its DF as 9. Further, the data reveals that there is less influence of the manufactures of Siddha medicine on the buying behavior of the respondents (19.09%). With in this value, more than 50% fall in the age group of 40 – 60, indicating that these could be due to their long term needs. Hence, it is depicted that there is a significant difference between respondents of different age groups on the buying sources of siddha medicine.

Among different types of treatment modalities available to public, Siddha System of Medicine is practiced by a limited number of physicians. However, it lacks well-organized, preclinical and clinical trial evidences to advocate their scientific merit and supremacy over other existing therapies. Rajagopalan, (1991) pointed out that innovative effort is required to define the advantages of this traditional system of medicine with respect to safety and efficacy so as to popularize it in the public domain. Sarwade and Ambedkar, (2002) and Krishnan et al., (2008) pointed out that selection of buying source of Siddha medicine is one of the daunting task.

CONCLUSION

Based on the results of the present study, it is concluded that more number of respondents those who fall with in the age group of 40 -60 and above meet their needs from Siddha medical practitioners and Siddha medical agencies. Further, it has to be stressed that Siddha medical practitioners play a vital role in customizing need based treatment. Hence, scientific validation of the safety and efficacy of the Siddha drugs both individually as well as formulation has to be carried out in a systematic manner to compete in the international market and provide consumer satisfaction.

REFERENCES

1. Andersen R (1968). A Behavioral Model of Families Use of Health Services Centre for Health Administration, University of Chicago, Chicago.
2. Anyinam C (1995) Ecology and Ethnomedicine: Exploring Links between Current Environmental Crisis and Indigenous Medical Practices. *Social Science and Medicine*, 40 (3):321-329.
3. Bhargava NA (1992). Impact of Colonialism on Ayurvedic Medicine in India, PhD, Dissertation Rutgers State University, NJ, US.
4. Bodeker G and Kronenberg F (2002) A Public Health Agenda for Complementary, Alternative and Traditional (indigenous) Medicine. *American Journal of Public Health*, 92(10):1582-1591.
5. CSIR (1996). Traditional Medicine CSIR initiates research on traditional medicine, Government of India, ND, India.
6. Gesler WM (1992). Therapeutic landscapes: medical Issues in Light of the new cultural geography. *Social Science and Medicine* 34(7):735-746.

7. Haddad S, Fournier P and Potvin L (1998). Measuring lay people's perceptions of the quality of primary health care services in developing countries. *International Journal for Quality in Health Care* 10(2):93-104.
8. Hausman GJ (1996). Siddhars, Alchemy and the Abyss of Tradition: 'Traditional' Tamil Medical Knowledge in 'Modern' Practice, PhD Dissertation, University of Michigan, US.
9. Krishnan A, Bagyalakshimi P, Ramya S and Jayakumararaj R (2008). Evaluation of Consumer Behavior in Selection of Buying Source of Siddha Medicine across different regions in Tamilnadu, India *Ethnobotanical Leaflets* (in press)
10. Manickavasagam R (1978). *NamNattu Siddargal* (Abbirami Publishers, Chennai).
11. McMichael AJ and Beaglehole R (2000) The changing global context of public health. *Lancet* 356:495-499.
12. MHFW (2002). Bulletin on Rural Health Statistics National Health Policy Government of India, ND, India.
13. Paul H, Taylor JW and Burce GD (1987). The Effects of Social Class and Perceived Risk on Consumer Information Search. *JCM* 4:41-46.
14. Pillai NK (1979). History of Siddha Medicine, (Govt. of TamilNadu, Chennai).
15. Rajagopalan TG (1991). Traditional Herbal Medicines around the Globe: Modern Perspectives. The Indian Perspective Proceedings of the 10th General Assembly of WFPMM, Seoul, Korea, *Swiss Pharma* 13(11a):63-67.
16. Richard NC (1965). An Experimental Study of Consumers Effort, Expectation, and Satisfaction, *Journal of Marketing Research* 244-249.
17. Robert P, Brody J and Cunningham SM (1968). Personality variables and the Consumer Decision Process. *Journal of Marketing Research* 5:53-57.
18. Sambasivapillai TV (1931) Dictionary based on Indian medical science, (National Institute of Siddha, Chennai).
19. Sarwade WK and Ambedkar B (2002). Emerging Dimensions of Buyers Behavior in Rural Areas. *Indian Journal of Marketing* 32(1-2):13-21.
20. WHO (1998). Regulatory Situation of Herbal Medicines - Review WHO/TRM: 49.
21. WHO (2000). General guidelines for methodologies on research and evaluation of traditional medicine WHO/TRM; 2000.
22. WHO (2002). Traditional medicine strategy 2002–2005. WHO/TRM; 2002 – 05.
23. Yesudian CAK (1989). Health Services Utilization in Urban India Mittal Publications, ND, India.
24. Yoder RA (1989). Are People Willing And Able To Pay For Health Services? *Social Science*

Table 1. Influence of Age on Buying Source of Siddha Medicine in TN, India.

Age group	Siddha Medical Agencies	Siddha Medical Shops	Siddha Medical Practitioners	Siddha Manufacturers	Total
< 20 y	46 (51.11)	14 (15.56)	13 (14.44)	17 (18.89)	90
20-40 y	22(14.86)	32 (21.62)	76 (51.35)	18 (12.16)	148
40-60 y	29 (20)	66 (45.52)	11 (7.59)	39 (26.9)	145
> 60 y	5 (9.62)	20 (38.46)	22 (42.31)	10 (19.23)	52
Total	102 (23.18)	132 (30)	122 (27.73)	84 (19.09)	440

Source: Primary Data, figures in parenthesis denote percentage.

Chi-Square result: Calculated Value 129.9; Degree of Freedom 9; Table Value 1% 21.7.