

‘PERCEPTION AND SELF-USE OF KABASURA KUDINEER AMONG HEALTH CARE PROFESSIONALS – A COMPARATIVE STUDY’

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ABSTRACT

Introduction: Kabasura Kudineer Chooranam is a formulation that is used traditionally by Siddha practitioners for treating common respiratory ailments like flu. The usage of Kabasura Kudineer Chooranam is increased during Covid -19. **Aim:** To understand the attitudes and self-use of kabasurakudineer among health care professionals in Chennai. **Materials and Methods:** The descriptive online cross-sectional survey using snowball sampling was carried out among health care professionals in Chennai. A pretested and well-structured questionnaire consisting of closed-ended questions was employed to assess perception and usage of Kabasura Kudineer. The estimated sample size is 456. The differences in the attitude, belief and usage of Kabasura Kudineer among health care professionals was compared using the Chi-square test. Spearman correlation was used to correlate between medical, dental and nursing professions. **Results:** Only 28 health care professionals have heard of kabasurakudineer before covid 19 and it was positively correlated between all the three groups. Most of them does not like the taste of Kabasura Kudineer and only few had prescribed kabasurakudineer to their patients. **Conclusion:** There is a better view of Kabasurakudineer among the medical professionals which might be because of that they are routinely taking care of COVID-infected patients followed by the nursing professionals and dental profession.

Keywords: Kabasura Kudineer Chooranam, Health care professionals, Covid-19

Introduction

The corona pandemic changed the lives of many people all over the world.¹

People started to give attention towards body's immune and defense mechanism against disease causing microorganisms that we touch, ingest and inhale every day.

The corona virus pandemic has turned the world's attention towards immune system and body's defense force against disease caused by bacteria, virus and other organisms that we touch, ingest and inhale every day. Our Immune system plays a major and critical role in our response against infectious disease.² Traditional medicine like siddha is one of the oldest medical systems in the world and it is most commonly practiced especially in southern regions of India.³

There is an increase in usage of herbal products which might be due to less affordability toward allopathic medicine and to prevent themselves from unwanted side effects of allopathic medicine by the present-day population

According to World Health Organization (WHO), numerous drugs can be obtained through herbal plants and they have been recognized as a rich source of natural antimicrobial compounds which is used as an alternate remedial source of treatment for microbial infections.⁴

Many siddha doctors in Tamilnadu have started seeking traditional medicines against deadly corona virus and they found 'Kabasura Kudineer', a herbal concoction which was introduced for the prevention and management of swine flu.

Kabasukudineer is a herbal concoction that comprises of dry ingredients like ginger, clove, Pippali, Cirukancori root, Kadukkaiajwain Mulli root and many other herbs.

The decoction will be made by powdering all the ingredients and mixed with water and made by boiling it and reducing it to one-fourth of its volume.

Kabasukudineer was recommended by the government of Tamilnadu, India to the people not to treat the disease but to boost the immunity during Covid 19 pandemic.⁵

Most of the people consume these herbal decoctions on advice by the health care professionals but the attitude among the health care professionals who practice allopathic medicine on herbal decoction varies. Hence this study was conducted to understand the attitudes and self-use of kabasukudineer among health care professionals in Chennai.

Aim: To understand the attitudes and self-use of kabasukudineer among health care professionals in Chennai.

Materials and Methods

The descriptive online cross-sectional survey using snowball sampling was carried out among health care professionals in Chennai. A well-structured, pretested, questionnaire consisting of closed-ended questions was employed to assess perception and self-use of Kabasura Kudineer.

A link consisting of brief introduction on the background, the objectives of study, voluntary nature of participation, declarations of confidentiality and anonymity, and instructions for filling in the questionnaire was shared with health care professionals.

The consent was obtained from all the participants through online before the commencement of the study.

A self-structured questionnaire which was devised based on the previous literature review and most recent available information was presented to the participants in the study. The validation of the questionnaire for its contents and relevance was performed by the subject experts in the concerned departments.

The survey was pilot tested among 10 General physicians and 10 dental surgeons and 10 staff nurses to check the clarity of all items and level of understanding the questionnaire. The average time taken to complete the questionnaire was also calculated.

Inclusion criteria

Health care professionals including general physicians, dentists and nurses with or without affiliated to academic institute and who are willing to participate are enrolled in the survey.

Exclusion Criteria

Participants who did not respond to the questionnaire form till two weeks.

Sample size Calculation

The sample size was estimated based on the results of the pilot study

The estimated sample size is 456 with alpha error at 0.05 and beta error at 0.80.

152 participants from each group were included in the study

Data Collection

The questionnaire comprising of questions related to three components which numbered as part 1, 2 and 3 respectively.

The first part of the questionnaire comprises of questions designed to collect the information related to demographic parameters of the study group such as gender. The second part of the questionnaire comprised questions related to perception and third part related to the self-use of kabasurakudineer.

Statistical Analysis

All the data was subjected to statistical analysis using IBM SPSS statistics for windows, version 21 (Armonk, NY: IBM Corp). Descriptive statistics was generated in terms of percentages. The differences in the attitude, belief and self-use of KabasuraKudineer among health care professionals was compared using the Chi-square test. Spearman correlation was used to correlate between medical, dental and nursing professions.

Results

A total of 456 medical, Dental and nursing professionals were included in the study with 152 in each group medical

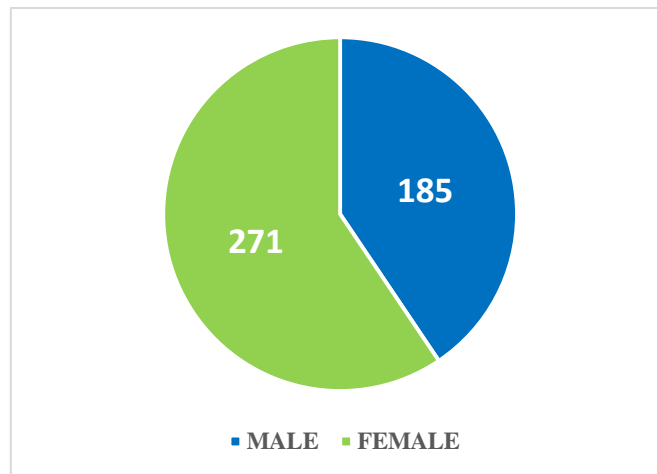
The distribution of study participants based on their experience is mentioned in table 1 where most of them have 1-5 years of experience

TABLE 1: DISTRIBUTION OF STUDY PARTICIPANTS BASED ON YEAR OF EXPERIENCE

YEAR OF EXPERIENCE	NUMBER	PERCENTAGE
<1YEAR	66	14.5%
1-5 YEARS	211	46.3%
>5 YEARS	179	39.3%

Distribution of study participants based on gender is mentioned in Figure 1 where 185(40.6%) male health professionals and 271(59.4%) female health professionals had participated in the study

FIGURE 1: DISTRIBUTION OF STUDY PARTICIPANTS BASED ON GENDER



Among 456 health professional 251(55%) were affiliated to academic institutions and 205(45%) were not affiliated to academic institutions.

Spearman’s correlation analysis was done to find out

The correlation between the perception and self-use of kabasurakudineer was analysed using spearman’s correlation and only few questions had obtained a P value of < 0.05 and found that not much differences between the three groups of health care professional.

Correlation between health care professional and questions related to perception of kabasurakudineer is explained in table 2 which shows that only 28 health care professionals have heard of kabasurakudineer before covid 19 and it was positively correlated between all

the three groups. Most of the health care professionals believed Kabasura Kudineer is really effective and it was statistically significant. They also believed that Kabasura Kudineer is safer, easily available and less expensive compared to allopathic medicine but they were not aware of the safe dosage.

TABLE 2: CORRELATION BETWEEN HEALTH CARE PROFESSIONAL AND QUESTIONS RELATED TO PERCEPTION OF KABASURA KUDINEER

S.N O	QUESTIONS	RESPONS E	MEDICA L	DENTAL	NURSING	SPEARMAN CORRELATI ON	P VALUE
1.	Have you heard of Kabasura Kudineer before COVID 19?	YES	13	11	4	0.77	0.10
		NO	137	141	148		
		NOT SURE	2	0	0		
2.	Do you believe that Kabasura Kudineer is really effective?	YES	100	72	83	0.13	0.029
		NO	7	26	29		
		NOT SURE	45	54	40		
3.	Do you believe Kabasura Kudineer is safer	YES	98	85	95	0.051	0.021
		NO	18	54	52		
		NOT SURE	36	13	5		
4.	Do you know the ingredients or components of Kabasura Kudineer	YES	118	117	116	0.013	0.7
		NO	34	35	36		
		NOT SURE	0	0	0		

5.	Do you think KabasuraKudineer is easily available?	YES	129	104	117	0.168	0.001
		NO	23	42	29		
		NOT SURE	0	0	6		
6.	Do you think KabasuraKudineer is not expensive than Allopathic Medicine?	YES	150	150	148	-0.041	0.38
		NO	0	0	0		
		NOT SURE	2	2	4		
7.	Do you know the safe dosage of KabasuraKudineer?	YES	116	22	57	0.499	0.001
		NO	34	130	94		
		NOT SURE	2	0	1		

P<0.05-Statistically significant; Spearman correlation was used to correlate between medical, dental and nursing professions

With regard to the usage of KabasuraKudineer most of them had KabasuraKudineer and they Will also allow their friends/family members to take KabasuraKudineer daily which is explained in table 3. Most of them does not like the taste of KabasuraKudineer and only few had prescribed kabasurakudineer to their patients.

TABLE 3: CORRELATION BETWEEN HEALTH CARE PROFESSIONAL AND QUESTIONS RELATED TO USAGE OF KABASURA KUDINEER

S.NO	QUESTIONS	RESPONSE	MEDICAL	DENTAL	NURSING	SPEARMAN CORRELATION	P VALUE
1.	Have you ever had KabasuraKudineer?	YES	143	118	139	-0.205	0.00
		NO	9	34	13		
		NOT	0	0	0		

		SURE					
2.	Do you like the taste of KabasuraKudineer?	YES	49	39	48	-0.006	0.90
		NO	103	113	104		
		NOT SURE	0	0	0		
3.	Will you allow your friends/family members to take KabasuraKudineer daily?	YES	134	134	135	-0.008	0.85
		NO	0	0	0		
		NOT SURE	18	18	17		
4.	Have you or your family members ever prepared KabasuraKudineer in your house?	YES	74	57	62	-0.065	0.16
		NO	78	95	90		
		NOT SURE	0	0	0		
5.	Will you take KabasuraKudineer even after covid 19 pandemic gone off?	YES	130	127	130	0.00	1.00
		NO	22	25	22		
		NOT SURE	0	0	0		
6.	I use KabasuraKudineer only for maintaining my overall health and well-being	YES	127	114	115	0.006	0.89
		NO	25	38	37		
		NOT SURE	0	0	0		

	and not for COVID 19						
7.	Have you ever prescribed kabasurakudineer to your patients?	YES	65	37	44	0.161	0.001
		NO	87	115	108		
		NOT SURE	0	0	0		

P<0.05-Statistically significant; Spearman correlation was used to correlate between medical, dental and nursing profession

Discussion

Kabasurakudineer become popular since the inception of covid 19 and most of the research had proved that kabasurakudineer is considered as a preventive remedy to prevent the serious illness due to covid-19

Government of Tamilnadu, India has initiated the usage of nilavembukudineer to prevent dengue and chikungunya virus and similarly kabasurakudineer is recommended as an effective method for preventing covid-19 infection.

A questionnaire survey was conducted to assess the perception and usage of kabasurakudineer among health care professionals. Medical, dental and nursing professionals were included in the study and the responses given by them were compared.

Only 9.3% of the health care professional heard about kabasurakudineer before the emergence of Covid 19. Though KabasuraKudineer (KSK) is prescribed even before covid 19 for fever and respiratory diseases in the Siddha system of medicine the awareness and usage of KabasuraKudineer is increased only after covid 19 due to the advertisement and researches done on in reducing the risk of covid 19 by boosting the immunity.

92.6% of health professionals believed that it is safer totake kabasurakudineer and in a animal study conducted by KanchibhotlaDivya et al supported the safety and efficacy of KabasuraKudineer and to support its wider use in clinical settings as a treatment for COVID-19 and in a Prospective Observational Study conducted among Patients with SARS-nCOV-2 Infection by J. Ezhil Ramya et al minor overlapping symptoms like vomiting, diarrhea, and gastritis were caused among patients consumed kabasurakudineer^{6,7}.In the present study most of the health care professionals(98.2%) replied that kabasurakudineer is not expensive compared to allopathic medication and in a study conducted by Dharani Bala on Attitudes, beliefs, and self-use of KabasuraKudineer among urban and rural population in Tamil Nadu it

was reported that 48.8% of urban and 48.7% of rural population replied that kabasurakudineer was less expensive compared to allopathic medicine and in the same study 46.9% of urban population and 48.7% of rural population also accepted that kabasurakudineer helps in maintaining the overall health of the individual and in the present study 356 health care professionals believed that use KabasuraKudineer only to maintain my health and well-being and not for COVID 19 ⁵It was reported that Kabasurakudineer possesses many health benefits and it has a strong anti-inflammatory, anti-viral, anti-bacterial, anti-fungal,hepato-protective, anti-pyretic, anti-asthmatic as well as immunomodulatory properties. Several studies have also disclosed that due to the anti-inflammatory properties of kabasurakudineer it aids in reducing swelling in the air passages while antibacterial and antipyretic properties helps to ease fever.⁸

A total of 65% of the health professional reported that they were aware of the safe dosage of kabasurakudineer with most of the medical professionals followed by nursing and dental professionals and according to Ministry of AYUSH Govt of India 5 ml to 60 ml of kabasurakudineer can be consumed per day. ⁹

Most of the health care professionals reported that they hadKabasuraKudineersince it was recommended by the government and various agencies to prevent Covid.

70.1% of the health care professionals do not like the taste of KabasuraKudineer which might be because of the astringent or bitter tasteof the herbal medicine and most of the decoction do not always taste pleasant.

The present study shows that 67 % of the health care professionals responded that they will allow their family members to take kabasurakudineer daily which shows the positive attitude towards kabasurakudineer

58% of the health care professionals agreed that they will take Kabasurakudineer even after the pandemic, as they possess not only protection against COVID-19 but also used to boost the lungs, improve respiratory function, and treat infectious diseases such as cough, cold, fever, and other respiratory infections. Most of the healthcare professionals does not prescribe kabasurakudineer to their patients because of increased exposure to allopathic medicine and rapid action of them.

Conclusion

Although Kabasurakudineer had a great impact on the public during the pandemic, various factors decreased its usage after the COVID-19 pandemic. In the present study, medical professionals have better perception towards Kabasurakudineer since they are routinely taking care of COVID-infected patients followed by the nursing professionals and then dental profession. Dentistry is one such profession where the exposure to the infected person occurs

during the procedures which consists of aerosol and they should be encouraged about the usage of Kabasurakudineer

Recommendations

It is recommended to include Kabasurakudineer in our daily routine to boost immunity since these herbal products have less side effects compared to allopathic medicine as they found to contain natural product and because of its multiple benefits to people who are consuming it.

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