International Journal of Advance Research in Community Health Nursing

Dr. S Tamilselvi
Department of Community
Health Nursing, Saveetha
College of Nursing, SIMATS,
Chennai, India

Suganthi S
Department of Community
Health Nursing, Saveetha
College of Nursing, SIMATS,
Chennai, India

Thamaraiselvi
Department of Community
Health Nursing, Saveetha
College of Nursing, SIMATS,
Chennai, India

A study to assess the health literacy on knowledge regarding Nilavembu Kudineer and Kabasura Kudineer for immunity boosting of deadly viruses along with COVID -19 among adults in rural population

Dr. S Tamilselvi, Suganthi S and Thamaraiselvi

Abstract
The Chinese Centre for Disease Control and Prevention (CDC) isolated COVID-19 AS Infectious diseases pose a significant risk to the global population. Coronaviruses are enveloped, non-segmented, positive-sense RNA viruses belonging to the Coronaviridae family. On March 11, 2020 WHO, declared COVID-19 a pandemic. Treatment for COVID-19 infection is not yet available. In india in general, there are limited studies on awareness and attitudes among Indians towards infectious diseases, especially during outbreaks such as coronavirus. Tamil Nadu has come out with public health advertisement promoting Nilavembu Kudineer and Kabasura Kudineer as preventive and controlling the morbidity level of public on contracting viral fever. The aim of the study is to assess the health literacy on knowledge regarding nilavembu kudineer and kabasurakudineer for immunity boosting of covid-19 among adults in rural population. Descriptive research design were adopted. The sample size was 100 adults in age group between 18-60 years selected using Non –probability convenience sampling techniques. The health literacy on knowledge regarding nilavembu kudineer and kabasurakudineer was assessed using self structured questions given with yes or no option. The data was analysed by using descriptive and inferential statistics. Study explains us clearly that, among 100 respondents, 47% (47) of the adults possess considerable good level of knowledge, 48% (48) of the adults possess considerable average level of knowledge and 5% (5) of the adults possess considerable inadequate knowledge on Nilavembu- Kabasura kudineer as immunity booster against deadly viruses along with covid – 19. Study finding also revealed that there was an increase in the mean total knowledge score of adults with higher level of education, it was significant at 0.01 level as the sample size was N=100.

Keywords: health literacy, nilavembu kudineer, kabasura kudineer, immune booster, covid-19.

Introduction
The Chinese Centre for Disease Control and Prevention (CDC) isolated COVID-19 AS Infectious diseases pose a significant risk to the global population. Coronaviruses are enveloped, non-segmented, positive-sense RNA viruses belonging to the Coronaviridae family. On March 11, 2020 WHO, declared COVID-19 a pandemic and it has impacted more than 195 countries worldwide. In India, On 30 January**,** the first case was confirmed in kerala thrissure district in a student who had returned home for a vacation from Wuhan Univercity in China. The symptoms of 2019-nCoV can appear in as early as two days or as long as 14 after exposure. In most situations, distribution from person-to-person occurs within close contact, about 6 feet. The spread is thought to occur mainly through respiratory droplets produced when an infected person coughs or sneezes, such as the spread of influenza and other respiratory pathogens. In general, there are limited studies on awareness and attitudes among Indians towards infectious diseases, especially during outbreaks such as coronavirus.

Tamil Nadu has come out with public health advertisement promoting Nilavembu Kudineer as preventive and controlling the morbidity level of public on contracting viral fever. Further, government has made arrangements for the supply of decoction to all patients reporting for this purpose in Primary Health Centers and Government Hospitals. Nilavembu Kudineer, a polyherbal formulation is a decoction concentrate widely used in Siddha Medicine to combat majority of fevers.

Corresponding Author:
Dr. S Tamilselvi
Department of Community
Health Nursing, Saveetha
College of Nursing, SIMATS,
Chennai, India

The control and treatment of a viral infection depends mainly on the availability of antiviral drugs, which are few in numbers and usually are not directly acting on virus but prevent replication in the host. The Siddha herbal formulations having medicinal importance have proved to be potentially active against a wide range of causative agents as Influenza, Dengue, Chikungunya, etc. Siddha medicines have been used effectively by human civilization over several centuries for treating various diseases and can be effectively employed to target the host response, like Kabasura kudineer during influenza outbreaks. Besides, during Dengue outbreak in India, a herbal formulation of Siddha medicine, nilavembu kudineer is used to prevent and controlthe morbidity level of public on contacting this viral fever.

The mode of action of the nilavembu kudineer is antiviral, antipyretic, antiinflammatay, analgesic in the case of viral born disease while immuno-modulatory in vector born infection. The reason why we say the formulation is immuno-modulatory is because of the way nilavembu kudineer acts upon viral infections in different types of cells. However, the mode of action of the formulation on immuno-modulation is yet to be understood.

Kabasura kudineer or choornam possesses strong anti-inflammatory, analgesic, anti-viral, anti-bacterial, anti-fungal, antioxidant, hepato-protective, anti-pyretic, anti-asthmatic and immunomodulatory properties. Several studies have disclosed that kabasura kudineer due to its anti-inflammatory properties aids in reducing swelling in the air passages while antibacterial and antipyretic properties ease fever.

Manidivya *et al.* (2020): SARS-CoV2 is a source of coronavirus infectious disease (COVID-19), this is considered as a fatal disease to universal communal health apprehension. This rapid pathogenic virus plays an important role in finding the pathogenic virus, treatment and prevention of pandemics. Virus can present everywhere in Global village. As it is virus it can extend easily and cause severe illness to the society. Hence, an efficient international attentiveness of plan is necessary to the prediction and prevention. In this review, epidemic outbreak, clinical findings, prevention recommendations of COVID-19 and suggestive medicinal value of south Indian plant like nilaveem sources has been discussed. Though the varieties of improved approaches have been taken in scientific and medicinal concern, we have to pay attention on medicinal value of the plant based sources to prevent these types of endemic diseases. This is one of the suggestive and effective ways to control the spreading of viruses. In future its required to provide medicinal plant based clinical products (Masks, sanitizers, soap etc.) with better techniques by clinicians to contend the scarcity and expose towards the nature based medicine rather than chemical drugs. This could be a benchmark for the economical clinical trials of specific plant material to treat the viral diseases.

Gangarapu Kiran *et al.,* (2020) Siddha Medicine is a valuable therapeutic choice which is classically used for treating viral respiratory infections, this principle of medicine is proven to contain antiviral compounds. Objective:The study is aimed to execute the *In Silico* computational studies of phytoconstituents of Siddha official formulation *Kabasura Kudineer* and novel herbal preparation - JACOM which are commonly used in treating viral fever and respiratory infectious diseases and could be affective against the ongoing pandemic novel corona virus disease SARS-CoV-2.Method:Cresset Flare software was used for molecular docking studies against the spike protein SARS-CoV-2 (PDB ID: 6VSB). Further, we alsoconducted *in silico* prediction studies on the pharmacokinetics (ADME) properties and the safety profile in order to identify the best drug candidates by using online pkCSM and Swiss ADME web servers. Results: Totally 37 compounds were screened, of these 9 compounds showed high binding affinity against SARS-CoV-2 spike protein. All the phytoconstituents were free from carcinogenic and tumorigenic properties. Based on these, we proposed the new formulation called as "SNACK–V". Conclusion:Based on further experiments and clinical trials, these formulations could be used for effective treatment of COVID-19.

The purpose of the study was 1. To Assess the level of health literacy on knowledge regarding nilavembu kudineer and kabasura kudineer for immunity boosting of deadly viruses along with COVID-19 among adults in rural population

Materials and methods
An Descriptive research design was used to conduct the study. The study was conducted in rural areas at sriperumbuthur. The inclusion criteria for the sampling are who are all between the age group of 18-60years Adults with in the age group of 18-60 years.Adults who are willing to participate in this study. The formal permission was obtained from our village president of rural areas at sriperumbuthur to conduct the study with assurance to abide by the rules and regulations of the village. The samples were selected by non purposive sampling technique on the basis of inclusion criteria. Informed consent was taken from the samples. After selecting the sample, the researcher introduces herself and explains the purpose of the study to the adults. After, to assess thehealth literacy on knowledge regarding nilavembu kudineer and kabasurakudineer a self structured questionnaires given with yes or no option. The data was analysed by using descriptive and inferential statistics.

Result and discussions
Part 1: Frequency distribution of demographic variables
Description of sample characteristics, Regarding age 26(26%) of them belongs to the age group of 18-27 years,24(24%)belongs to 28-37 years, 20(20%)belongs to 38-47 years, 25(25%) belongs to 48-57 years,and 5(5%) belongs to 58-60 years,regarding gender 56(56%) of them are female, 44(44%) of them are Male, regarding type of education 46(46%) of them have pursued diploma/degree as their education, 13(13%) with high school education,16 (16%)with higher secondary education,14 (14%) with primary education and 11(11%) with no education, regarding occupations are 51(51%) employed under private sectors, 1% under government sector and 48(48%) do not go for any job, regarding the monthly income of the individual 48(48%) of them are not earning, 1(1%) between Rs.1001-3000,7(7%)of them earn between 3001-5000, 2(2%) earn between Rs.5001-7000, 7(7%) earn between Rs. 7001-9000 and 35(35%) earns above Rs.9001.

Part 2: Frequency distribution of knowledge assessment scores

A self-structured questionnaire consisting of 20 dichotomous questions (YES/NO type) were administered to the 100 respondents and their level of knowledge were assessed. Each correct answer was given a score of one and wrong answer a score of zero. Based on the total score obtained, the level of knowledge was categorized as follows

Scoring techniques: (Knowledge on COVID-19 & Nilavembu-Kabasura drinks)
*15 and above correct answers ->Considerably good knowledge
*8-14 correct answers->Average knowledge
*up to 7 correct answers->Inadequate knowledge

Table 2: Frequency distribution of Scores obtained (N=100)

	Frequency	Percent
Inadequate knowledge	5	5.0
Average knowledge	48	48.0
Considerably good knowledge	47	47.0
Total	100	100.0

Data from the above table explains us clearly that, among 100 respondents, 47% of them possess considerable good level of knowledge on COVID-19 and Nilavembu-Kabasura drinks. 5% have inadequate knowledge and 48% have average knowledge on COVID-19 and Nilavembu-Kabasura drinks.
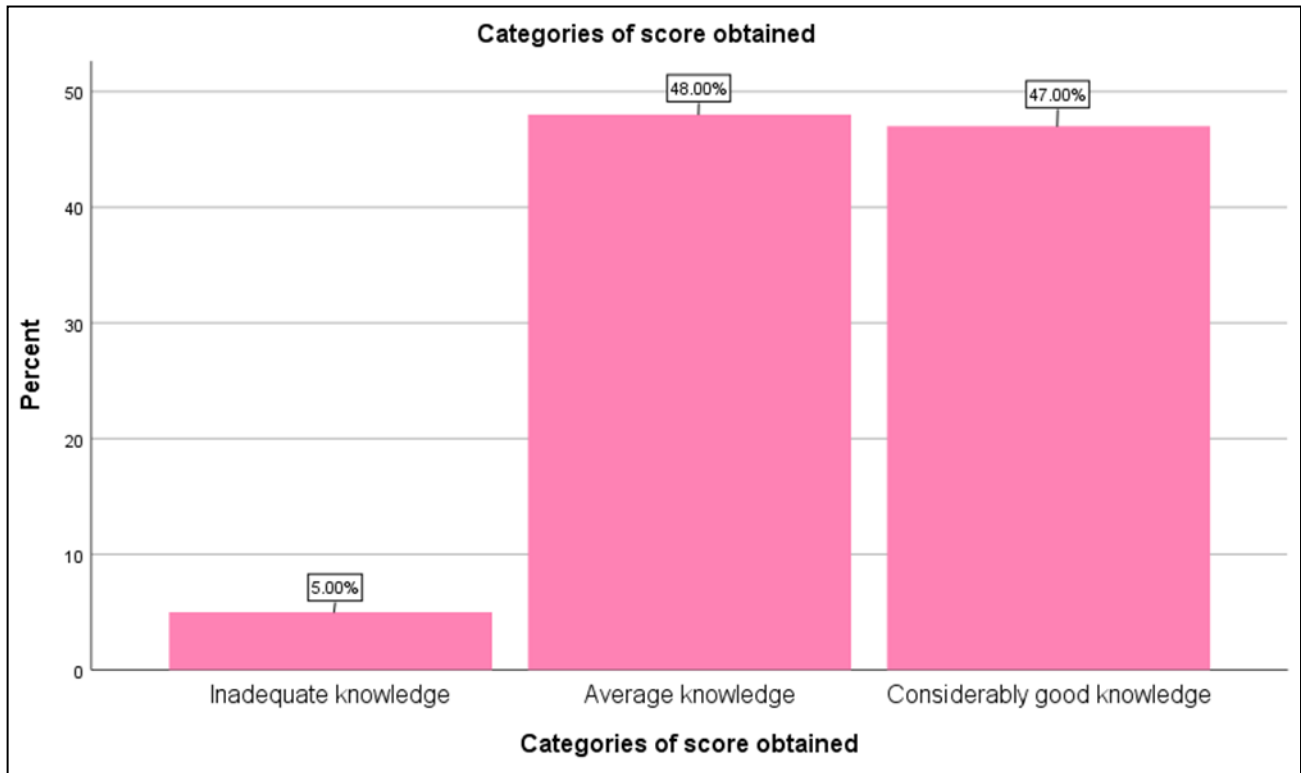

Fig 2: Graphical distribution of Scores obtained

Part 3: To identify the factors influencing the level of knowledge on COVID-19 & Nilavembu-Kabasura Kudineer

Table 3.1: Mean and Standard Deviation of demographic variables and assessment scores

Descriptive Statistics			
	Mean	Std. Deviation	N
Categories of score obtained	2.42	.589	100
Categorized age groups	2.59	1.256	100
Gender of the respondent	1.56	.499	100
Education level of the respondent	3.72	1.443	100
Occupation of the respondent	2.03	1.000	100
Categorized monthly income	3.76	2.793	100

Table 3.2: Demographic variables and assessment scores (N=100)

S. No	Demographic variables	'r' value	p-value (Significant at the level of 0.01)	Correlation
1.	Age	-0.461	0.000 (Significant)	Negative
2.	Education	0.686	0.000 (Significant)	Positive
4.	Occupation	-0.107	0.288 (Not Significant)	Negative
5.	Monthly Income	0.007	0.948 (Not Significant)	Positive

Data from the above table indicate that, a positive correlation exists between the knowledge scores and education and the knowledge scores and monthly income, out of which, education exists a significant relationship with the knowledge scores. As the level of education increases, the level of knowledge increases

Study finding also revealed that there was an increase in the mean total knowledge score of adults with higher level of education, it was significant at 0.01 level as the sample size was N=100

Conclusion

A descriptive study was undertaken to assess the knowledge of adults in rural areas about nilavembu kudineer and kabasura kudineer as a immunity booster against deadly viruses along with covid-19. The study was conducted in a relatively 100 samples. There was an increase in the mean total knowledge score of adults with higher educational level. This study clearly portrays that 47% of adults had good level of knowledge, 48% of adults had average level of knowledge, 5% of adults had inadequate level of knowledge.

References

1. WHO Coronavirus disease (COVID-2019) situation report – 69, 2020. https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200329-sitrep-69-covid-19.pdf? sfvrsn=8d6620fa_2
2. Rstian. Protective effect of polyherbal siddha formulation-nilavembu kudineer against common viral fevers including dengue - a case-control approach. IJPSR 2015;6(4):1656-1660.
3. Harshiara Mahadevan *et al.,* Literature Review on Siddha Herbal Formulations (Kudineer) Available for the Management of Dengue - International Journal of Pharmacology and Clinical Sciences 2016;5(3):90-96.
   Thilak Kumar R *et al.,* FTIR analysis on nilavembu kudineer churanam and acetominaphen- J Chem Pharm Res 2016;8(3):634-639.
4. Balakrishnan C *et al.,* Pharmacognosy and chromatographic analysis of nilavembu chooranam and nilavembu tablet, a siddha polyherbal kformulation - Int J Pharm Bio Sci 2013;4(2):180-186
5. Jain J *et al.* Antiviral activity of ethanolic extract of Nilavembu Kudineer against dengue nd chikungunya virus through in vitro evaluation. J Ayurveda Integr Med 2019. DOI:.1016/j.jaim.2018.05.006
6. Anbarasu K *et al.* Anipyretic, ani-inflammatory and analgesic properties of nilavembu kuneer choornam: a classical preparation used in the treatment of chikungunya fever.
7. Asian Pac J Trop Med 2011;4:819-823.
8. Sidha perspective of managing swine flu with Kaba sura kudinee.
9. Uthamarayan KS, Siddha Maruthuvanga Churukkam, Directorate of Indian Medicine & Homeopathy, Chennai- 106 2006.
10. Murugesa Mudaliar KS. Siddha Materia Medica, Directorate of Indian Medicine & Homeopathy, Chennai-106 2013.
11. Anthony R Coronaviruses: An Overview of Their Replication and Pathogenesis. Methods Mol Biol 2015;1282:1-23.
12. Zumla A. Coronaviruses — drug discovery and therapeutic options. Nat. Rev. Drug Discov 2016;15:327-347.
13. Living Donhasha Hu, Jianjun Gao. Discovering drugs to treat coronavirus disease 2019 (COVID-19). Drug Discoveries & Therapeutics 2020;14:58-60.
14. Chang C, Jiany13g H, Zhenshun C *et al.* Favipiravir versus Arbidol for COVID-19: A Randomized Clinical Trial. MedRxiv 2020.