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Knowledge and Practice Regarding Covid 19 and Alternative Therapies for Its Prevention among Out Patients in a Private Dental Institute

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Abstract

Background and Aim: Covid 19 is now considered as a highly infectious Pandemic causative and still now acts as a major challenge for governments due to their people's fear on health issues. Even though the vaccine is a promising fixing cure, we are yet to be fully persuaded about its safety and side effects. This study was conducted with an aim to study the knowledge and practice towards alternative therapies available, among patients visiting a private dental institution in Chennai.

Methodology: A total of 109 out-patients from a private dental institution participated in the study. A self-administered, 17 questionnaire was circulated among the patients. The data was exported to SPSS version 25 and innovatively analysed, Chi square test was used for finding the association between gender and the knowledge of transmission of COVID-19 virus.

Results: On the whole, the knowledge regarding COVID 19 was found to be good. Majority of them used herbal products (Kabasura Kudineer) as a preventive measure, which was suggested by friends or relatives. The Bar graph that depicts the association between gender and knowledge of clinical symptoms of COVID-19 shows that Yes was the most given answer by both genders with Pearson chi square test shows p value = 0.699 (>0.05, statistically insignificant).

Conclusion: This study throws a light on baseline knowledge regarding outpatient's perspective towards the pandemic and its related alternative therapies. In order to transform the beliefs regarding alternative therapy into a treatment regimen, evidence based trials must be carried out.

Keywords: COVID - 19, Alternative therapy, Pandemic, Knowledge, Practice, innovative analysis.

Introduction:

In late December 2019, a novel strain of coronavirus emerged, which originated in Wuhan, China (1). This later was labelled as a pandemic and is still threatening the world. The disease presents itself as a form of Severe Acute Respiratory Syndrome (SARS 2)(2). In January 2020, India detailed its first instance of COVID 19(3). Even with all the Travel restrictions and serial lockdowns, we are still battling this pandemic. Vaccines have cleared various phases of clinical trials and are now out in the market, but still not everyone is comfortable or confident about taking a shot (4). Lack of complete cure for this disease has raised concerns worldwide, and has led to search of alternative therapy worldwide (5). In Morocco, medicinal plants are used for prevention medications during COVID-19 pandemic (6). India is a land known for its indigenous system of medicine and since the start of the pandemic, various medicines have been administered officially, been tested personally along with allopathic remedies (7).

It is said that natural products, herbal formulations act by increasing immunity. Trailing of Ayurvedic systems of medicine had been going on for immunity boosting, prevention and cure of disease (8). But then they also can damage the system if administered or used without proper monitoring. Surveys have found that use of herbal products by many citizens to prevent COVID 19 were mostly based on traditional, complementary and interactive medicinal methods (9). The Ministry of AYUSH has recommended a daily practice of Yoga or any other physical activity, at least for 30minutes in order to improve the lung capacity (10). And have also advised on adding traditional spices like turmeric, ginger, coriander and garlic as self-care measures.

The Uncertainty for the cure of the disease, mixed opinions and fear regarding long term effects of vaccines has increased the preference for alternative systems of medicine (11). But to use alternative therapy, it is pivotal to know about the baseline knowledge and attitude and the current practice of the end users. This will greatly help in conducting evidence based trials in the area of interest, which can later be translated to clinical practice and use.

Hence this study was a self-administered survey planned to be conducted on the outpatients visiting a private dental institution in Chennai, measuring the knowledge, attitude, practice regarding alternative therapies towards COVID 19 through questionnaire. Our team has extensive knowledge and research experience that has translate into high quality publications (12—31).

Materials and Methods

Study Design: A cross sectional questionnaire survey

Study Setting: OPD Department in a private dental institution in Chennai

Sample Size: 109 out patients attending the OPD department

Sampling and Scheduling: Owing to the nature of the study design and setting, a convenience sampling method was used. And the data was collected over a period of one month.

Survey Instrument: A pre tested and validated questionnaire was used to measure the baseline knowledge, attitude and practice regarding the pandemic and alternative therapies for the same.

Inclusion and Exclusion Criteria: All those who were willing to participate were included in the study. Those who were not willing and those who had language barrier in answering the English version of the questionnaire were excluded from the study

Ethical Clearance: Prior to the start of the study, ethical clearance was obtained from the institution ethical committee of Saveetha University .

Statistical Analysis: The responses from the Google sheet were transferred into an excel and were then exported to SPSS software, version 25. Descriptive statistics was done using frequency and percentage. Inferential statistics was done using Chi square test. Interpretation was based on a p value less than 0.05, which was considered statistically significant. Comparisons were done between independent variables like age, gender, occupation and knowledge, attitude practice responses by the participants.

Results

A total of 109 general outpatients participated in this study. Out of these students, 74 were male and the rest 35 were females and the majority of them were in the age group of 35-45 years.

The knowledge component revealed that 51.38% of the participants considered fever, fatigue and dry cough as main symptoms for COVID 19 (Figure 2) and 45.8% of them felt sneezing and stuffy noses are less common in this disease unlike common cold. About 50.46% of the participants believed in asymptomatic transmission, while 55.05% had specific knowledge regarding droplets as the main source of infection spread (Figure 3). As a remedy to the current situation, only 48.62% of the participants believed in vaccination, whereas more than half of the participants relied on alternative therapies for cure and prevention of the same (Figure 4).

When it came to preventive measures, 59.63% agreed to the fact that, one must avoid going in to crowded places to avoid transmission of virus, off which 47.7% had agreed to the fact that it is airborne. 57.8% of them believed in taking alternative therapy like turmeric and ginger and only

14.20% had used prescribed/over the counter herbal products as a remedy. 38.53% of the participants were aware about the effects of unwarranted use of herbal products.

Gender wise comparisons were made to check significance in difference in terms of knowledge, attitude and practice and it was found to be not significant. For example, a question was asked whether the COVID-19 virus is airborne. Though there was an observed difference with the majority of them in both genders answering “yes”, statistical significance was not present. (Figure 5)

Same was observed for knowledge of impacts of herbal products as an alternative method for prevention of COVID-19. Following the knowledge component, their usage of any alternative therapy was enquired (Figure 6). Again there was an observed difference between the genders with the majority of them answering positively for using alternative therapy. Again there was no statistical significance observed. And the majority of them relied on their friends or relatives to try out indigenous methods for prevention from the deadly pandemic.

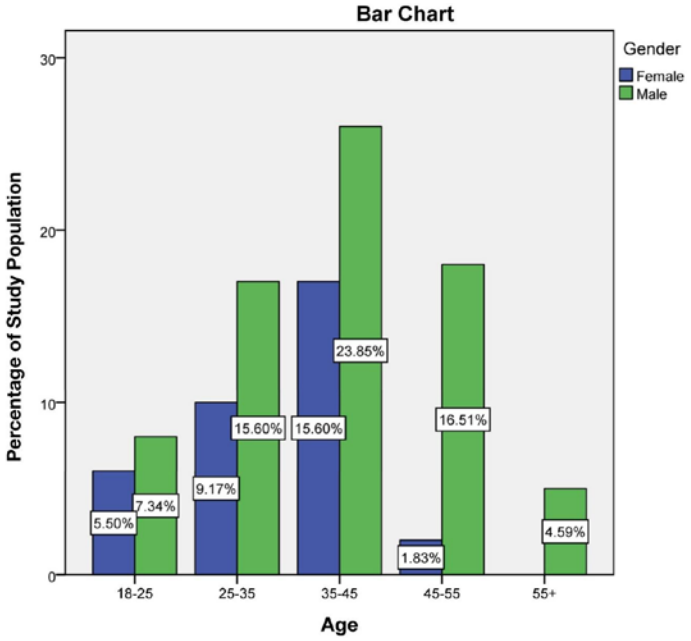

Figure 1: The Bar graph represents the age and gender of the study population in this study. Blue denotes

Male, Green denotes Female, Majority of the participants were from the age group of 35-45 years old people with 15.6% of females and 23.85% of males.

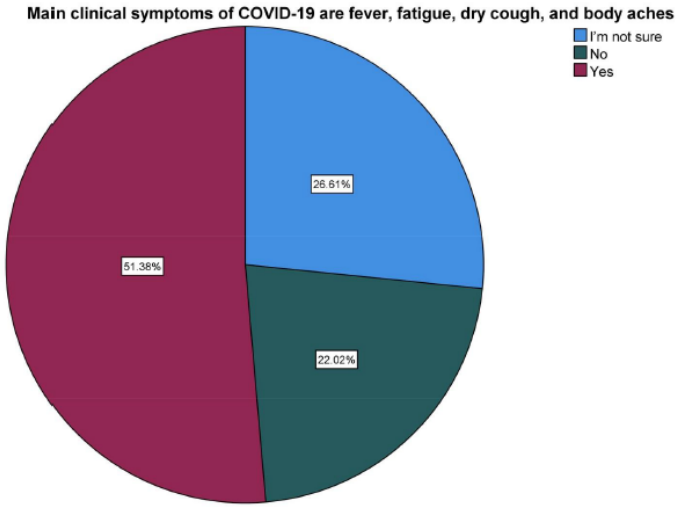

Figure 2: The pie chart represents the percentage of participants' knowledge on symptoms of COVID-19. Green denotes no, Maroon denotes yes and Blue denotes partial knowledge. Majority of the participants commented yes with a percentage of 51.38%.

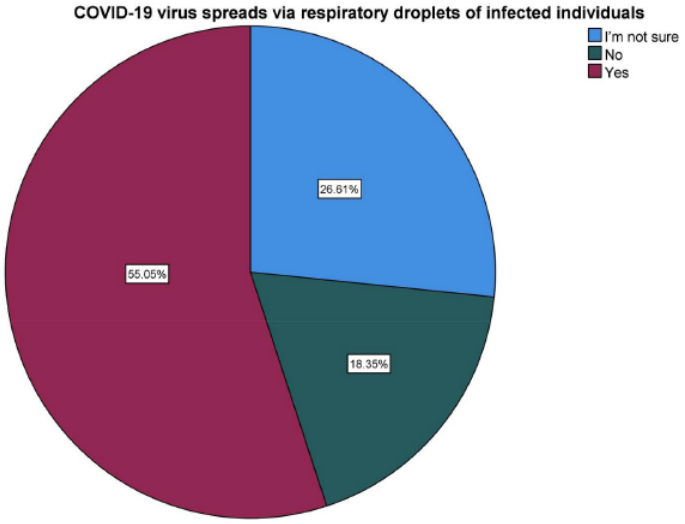

Figure 3: The pie chart represents the percentage of participants' knowledge on transmission of COVID-19 through respiratory droplets. Green denotes no, Maroon denotes yes and Blue denotes partial knowledge. Majority of the participants commented yes with a percentage of 55.05%.

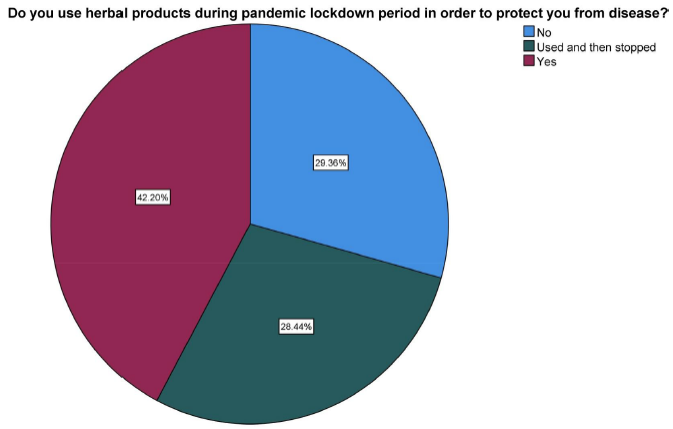

Figure 4: The pie chart represents the percentage of participants' usage of herbal products during COVID-19 pandemic period. Green denotes used and then stopped, Maroon denotes yes and Blue denotes no. Majority of the participants commented yes with a percentage of 42.2%.

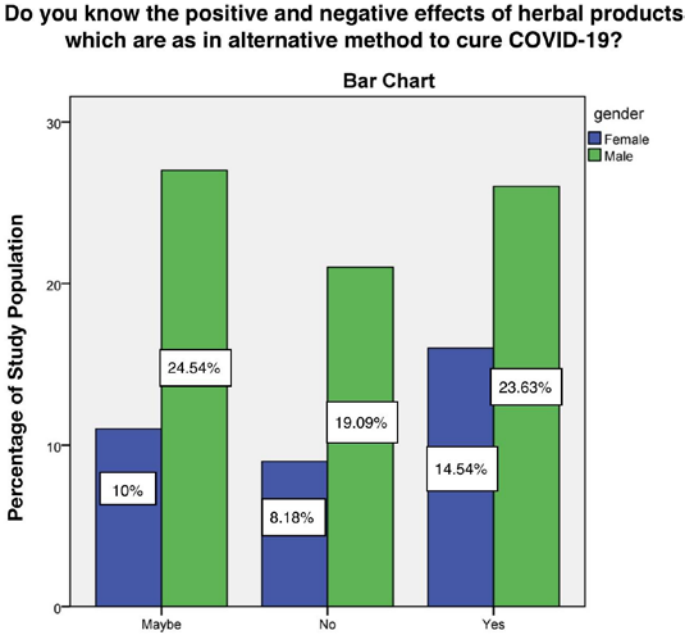

Figure 5: The bar graph depicts the association between gender and the knowledge of transmission of COVID-19 virus. X axis denotes knowledge of transmission route of COVID 19 virus and Y axis denotes percentage of participants. Green represents Male, Blue represents Females. Yes was the most given answer by both genders with 14.68% females and 36.7% males. Pearson chi square test shows p value is 0.699 (>0.05), which is statistically not significant.

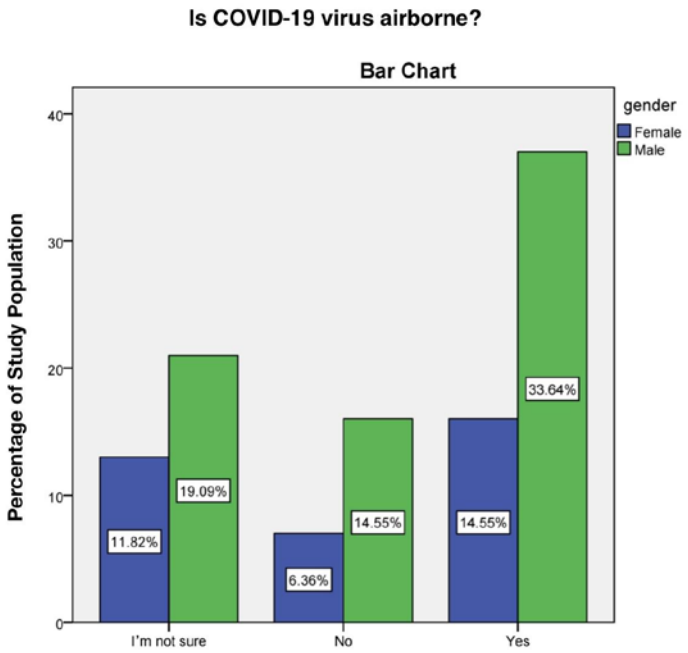

Figure 6: The bar graph depicts the association between gender and the knowledge of impacts of herbal products as alternative methods for COVID-19. X axis denotes knowledge of effects of herbal products and Y axis denotes percentage of responses. Green represents Males and Blue represents Females. Yes was the most given answer by 14.54% females and Maybe was commented by 24.54% males. Pearson chi square test shows p value is 0.599 (>0.05), which is statistically not significant.

Discussion

This study explored the beliefs about and the use of herbal products and food supplements among the general public who were outpatients of a private dental institution. In addition, this study explored the population‘s knowledge about COVID-19 preventive measures. Besides this, the level of knowledge about COVID-19 was assessed between users and non-users of herbal products and food supplements. The findings of our study highlights the importance of educating the general population about COVID-19 transmission and the preventive measures that play a vital role in their protection from getting infected with the disease and which dramatically reduce the spread of the disease(32). The SARS-CoV-2 high infectivity rate has been established regardless of the appearance of symptoms, which may extend to 14 days (33). In this study, 35 males and 74 females participated.

The present study revealed that 51.38% of the participants considered fever, fatigue and dry cough as main symptoms for COVID 19 and 22.02% replied no and 26.61% of them weren’t sure about it. In the present study, 28.44% used and then stopped and 42.2% are still using herbal products for health concerns while 29.36% aren’t using herbs. Previous studies reported that there is a common belief that herbal products are safer than prescription medications within many people (34).

Out of all participants, 47.71% knew that COVID-19 virus is airborne and others didn’t have any knowledge on COVID-19 virus. Several studies conducted in Asian countries have indicated high knowledge levels of COVID-19 among the general population which isn’t similar to our findings (35). 55.05% had specific knowledge regarding droplets as the main source of infection spread while others (nearly 44.95%) while other researchers got their findings as more than 80% of respondents knew disease transmitted through handshakes and respiratory infectious droplets (36).

Limitations

Low sample size was presented in this case study. This study is just a pilot questionnaire study and also some of the participants responded with an unclear mind due to their lack of knowledge on the alternative therapies to prevent COVID-19 transmission.

Conclusion

This study revealed that knowledge of the general public about COVID-19 and alternate therapies such as herbal products were adequate. Even though herbal products have medicinal effects on the body, that doesn’t mean that those also had both positive as well as negative impacts.

People should be given proper knowledge on COVID-19 and impacts of herbal products such that unwanted disorders which may be caused by consumption of un-prescribed herbal products can be prevented. Further studies can be held by other researchers with large scale sample size and also for different age groups with help of this article like a reference article for their guidance.

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