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A descriptive study to assess the knowledge, attitude and preventive strategies of COVID-19 among vulnerable groups

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Abstract
The present aim was to determine the existing level of knowledge, attitude and preventive strategies of COVID-19 among vulnerable groups who has diabetes and hypertension among population on Kozhumanivakkam, Chennai, A quantitative approach with descriptive research design was adopted for the present study. 60 samples among which (n=60) were selected by using non probability purposive sampling technique. A semi structured questionnaire method was used to collect both the demographic data and existing level of knowledge, attitude and preventive strategies among vulnerable groups. Among 60 study participants, the mean score of KAP is 19.3 with the standard deviation of 3.05. Hence the findings of present study concluded that population of vulnerable group had a average level of KAP towards COVID-19.

Keywords: COVID-19, knowledge, attitude, preventive strategies, vulnerable groups

Introduction

COVID-19, coronavirus disease 2019 is a pandemic illness of a respiratory disease caused by a large single stranded, RNA virus which has club shaped spike proteins, officially called as SARS COV-2 stands for severe acute respiratory syndrome corona virus2 first confirmed on January 2020, in wuhan, China has a wider spread all over the country causing higher mortality and morbidity and higher fatality and severe illness are in vulnerable groups (patients with comorbidities like diabetes, hypertension), and individuals with confirmed SARS COV-2 has a clinical manifestation of fever, cough and shortness of breath with the latent period of 14 days following exposure to the virus, according to WHO weekly report on August 24,2020; 23,057,288 cases with 800,906 deaths were reported, as weekly report on 19th July 2021 there are 3,11,74,322 cases with 4,14,482 deaths, and studies also revealed that there is a knowledge seen on common transmission and symptoms (80%) but lower awareness on aerosols, food and pet [1, 2]. This COVID-19 causes morbidity in the range of mild respiratory illness to severe complications characterized by acute respiratory distress syndrome, septic shock, and other metabolic and hemostasis disorders and death (Guan W, *et al*., 2020). Most of the fatal cases and severe illnesses like acute respiratory distress syndrome (ARDS) occurred in older adults and people who have underlying medical comorbidities like diabetes, cancer, hypertension, heart, lung, and kidney diseases [3, 4]. As COVID-19 cause's fatality and severe illness in older adults and people with underlying comorbidities like diabetes, hypertension, cancer, kidney disease and others; Lack of knowledge and positive attitude towards COVID-19 may interfere with preventive strategies, causing relectancy and higher morbidities and mortalities among vulnerable groups [5, 6, 7]. As previously in the absence of any approved treatment or vaccine against novel corona virus infection, various effective preventive measures are reviewed includes social distancing, travel restriction and wearing masks and hand washing practice and increased testing especially lockdown are seemed effective in delatying the peak of pandemic and reducing peak prevalence [8, 9]. (Lahiri, Jha *et al*., 2020) As further on June 2020, the genetic sequence of SARS COV2 was ahared to GISAID, and on 31st December 2020, making Pfizer/Biotech -COVAXIN. Was the first vaccine on consirmatory COVID-19 mRNA vaccine [10, 11, 12]. (WHO. 2020) SO as to prevent complication and to promote health education programs and control and eradication of pandemic, the aim of the study is to assess the knowledge, attitude and preventive strategies of COVID-19 among vulnerable groups and associate the level of

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attitude, knowledge and preventive strategies of COVID-19 among vulnerable groups with their selected demographic variables.

Methods and materials
A cross sectional investigation was directed among 60 samples of vulnerable groups who has diabetes and hypertension selected by non-probability purposive sampling technique, the data was gathered by utilizing determined tools such as demographic variable Performa of samples, semi structured knowledge, attitude and preventive strategies questionnaire consists of 25 multiple choice questionnaires with defined, and after obtaining to acquiring authorization from the setting, participants consent, a brief introduction about the study was given to the participants and the data was gathered for a period of one week and the gathered data were analyzed using descriptive and inferential statistics.

Results and discussion
The data was analyzed according to the objectives and assumption of the study, as the majority of population in vulnerable groups is 61.7% were aged between 40-50 yrs and 63.3% are females and 70% had primary education and 53.3% were private workers and 100% were residing in rural areas and 41.6% had received awareness through mobile phones. (Fig: 1&2)
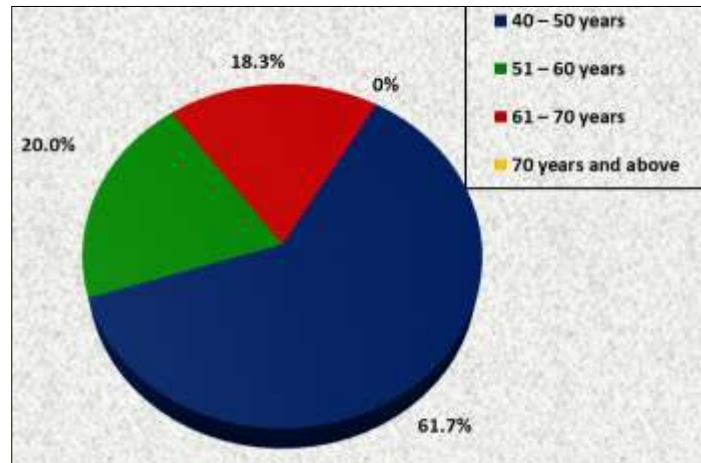

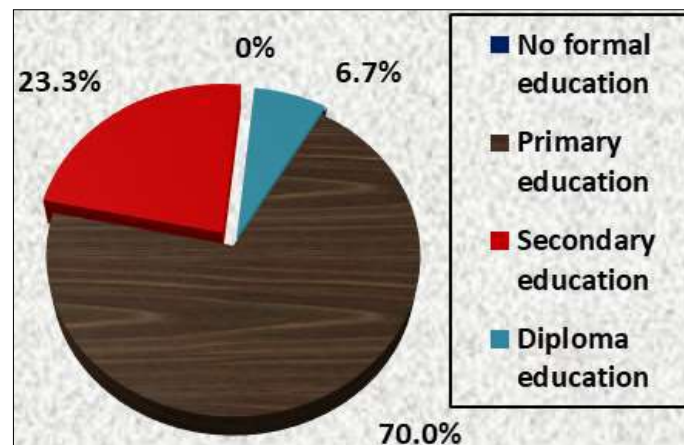**Fig 1:** Percentage distribution of age of the vulnerable groups

Fig 2: Percentage distribution of education of the vulnerable groups

Table 2: Frequency and percentage distribution of level of attitude and knowledge and preventive strategies of COVID-19 among vulnerable groups

Attitude, Knowledge and Preventive Strategies	Poor (7)	Average (30)	Good (17)	Excellent (6)
Minimum Score	4.0	8.0	13.0	21.0
Maximum Score	6.0	12.0	17.0	22.0
Mean	5.43	10.67	14.53	21.67
Standard Deviation	0.79	1.47	1.55	0.52

The results were supported by getu melesie taye., *et al.* (2021) who conducted KAP of COVID-19 among hypertension and diabetes mellitus patient in ambo town, as 37.59% of participants had good knowledge concerning attitude, 79.2% has strongly believed DM and HTN were more risk of death and 10.4% of them had good preventive practices only ¾ of the participants strongly believed COVID-19 is a serious disease and good knowledge is associated with good level of preventive practices.

The mean score of KAP of vulnerable groups is 19.3 with standard deviation of 3.05 and there is a significant association of demographic variable of sex with KAP at $p < 0.05$ level.
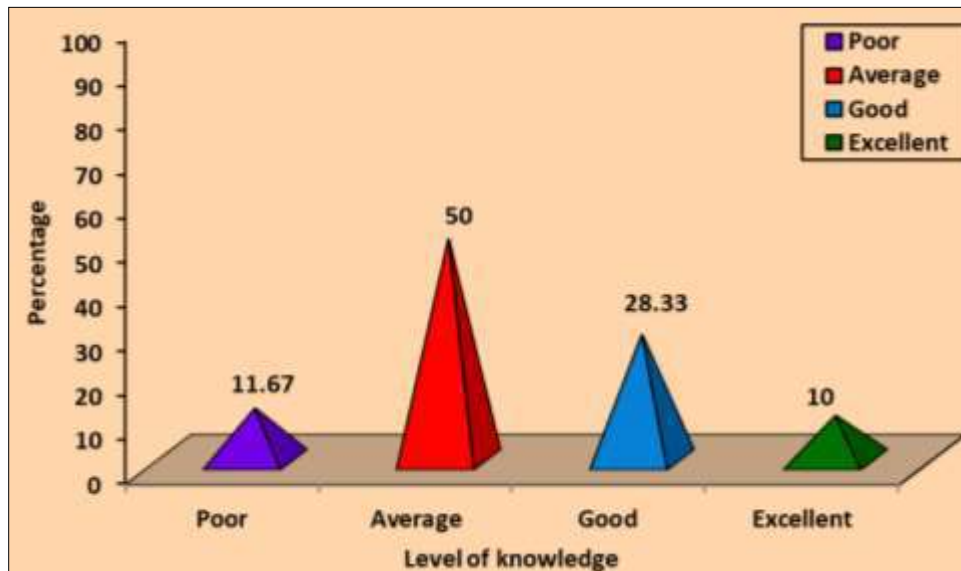
Fig 3: Percentage distribution of level of attitude and knowledge and preventive strategies of COVID-19 among vulnerable groups

Conclusion

The study findings revealed that only fifty percent of vulnerable groups (patients with diabetes and hypertension) had average knowledge, attitude and preventive strategies on COVID-19 which brings out the need of health education programs and positive approaches and experimental studies regarding COVID-19 which helps in control and eradication of this pandemic.

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