Original Research Article

Assessment of Knowledge, Attitude and Practices of Paramedic Health Care Workers towards COVID-19 Pandemic

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Abstract

The novel corona virus disease (COVID-19) caused by a new strain of corona virus was declared as a pandemic by the World Health Organization (WHO) and now is an unprecedented global issue. Mankind is experiencing another remarkable involvement in the quickly spreading COVID-19 pandemic. Besides, the sickness fundamentally influences regular daily existence, bringing about a financial emergency. Moreover the highest risk of getting COVID-19 is for the front line Healthcare workers (HWs). Therefore, utmost importance to evaluate their knowledge, attitudes, and practices (KAP) regarding COVID -19 is needed. Anonline Cross-sectional research design was utilized for the study. An aggregate of 100 paramedic health workers (Nurses, Pharmacist, Lab technician and Allied health technicians) were chosen using a convenient sampling technique. Data were gathered among eligible healthcare workers through online survey by electronically distribution of self-administered questionnaire developed by the investigator. The results depict that 80% had adequate knowledge, 84.6% had positive attitude towards COVID-19 and 88% of participants had appropriate practice related to COVID-19. There was a positive relationship noted among knowledge and attitude(r= 0.381), attitude-practice(r=0.624) and knowledge-practice(r= 0.702) at p<.05 and p<.01 level respectively. The outcome found that there is no huge affiliation found between selected demographic variables such as Age, residence, marital status and source of information but gender and years of experience was significantly associated with knowledge and practice ($\chi 2$=5.18) at p<0.01 and profession was significantly associated with attitude ($\chi 2$=10.92) at p<0.001.
Keywords: knowledge, attitude, practice, paramedic health care workers, COVID-19.

INTRODUCTION

Corona virus 2019 (COVID-19) is the increasing respiratory illness caused by a novel COVID. It was first revealed in Wuhan, China in December 2019[1, 2]. The World Health Organization (WHO) pronounced the novel (COVID-19) flare-up a worldwide pandemic on March 11, 2020 [3]. India is the second most crowded nation on the globe with a populace thickness of 382 people/square km [4]. Recent updates uncover a case heap of 35, 42,733 with 63,498 COVID-19 passings, the third higher on the planet [5]. SARS-CoV-2 can spread through human-to-human transmission and aberrant contact with tainted objects [6]. SARS-CoV-2 can be transmitted through body liquid beads from the mouth or nose, which can spread when an individual with COVID-19 hacks, sniffles, and talks.Droplets commonly can't cross over in excess of six feet (very nearly two meters) [6]. SARS-CoV-2 remains intact and infectious in beads and can be suspended noticeable all around for up to three hours [6, 7]. Additionally, defiled beads can stay in articles, for example, plastic, steel, copper, and cardboard [7]. An individual can get infected on the off chance that they contact the surface polluted with SARS-CoV-2 items and, at that point connect with mucous layers, for example, the eyes, nose, or mouth [6]. A precise survey on COVID-19 patients indicated that people with hypertension, diabetes, cardiovascular and respiratory framework illnesses were the most risk groups.[8] patients with chronic obstructive pulmonary disease have five-overlap expanded danger of extreme COVID-19 infection [9]. The fundamental clinical manifestations of this COVID-19 incorporate fever, dry hack, weakness, myalgia and dyspnea. The serious phase of COVID-19 is described by ARDS, septic stun, bleeding and coagulation dysfunction [1, 2]. Infrequently, indications including migraine, muscle torment, sore throat, loss of taste (ageusia) or smell

(anosmia), hemoptysis, and diarrhea were watched [10]. Until now, there is no antiviral remedial treatment or immunization that has been suggested for COVID-19.[11] Essential preventive measures incorporate customary hand washing, social separation, and respiratory cleanliness (covering mouth and nose while hacking or sniffling) [12, 13]. Presently, there is no accessibility of any demonstrated explicit treatment or avoidance procedure to battle against COVID-19 [14]. Non-drug intercessions like; isolate of exposed people, separation of suspected/affirmed cases, and refinement of the overall population about control measures are the main accessible choices to restrict the spread of this new virus [15]. Healthcare workers (HCWs) of all levels are associated with caring about patients with this profoundly communicable microbe. COVID-19 has posed serious work-related health risks to HCWs due to their recurrent contact to infected persons [16]. HCWs are the frontier of COVID-19 pandemic reaction and are presented to risks like microorganism exposure, long working hours, mental misery, exhaustion, word related burnout [18]. The absence of knowledge and errors among HCWs lead to postponed diagnosis, spread of illness and lack of disease control practice. A few thousand HCWs have just been contaminated, chiefly in China [16]. Forestalling intra medical clinic transmission of this transferable sickness is subsequently a need. In the midst of the current pandemic, WHO has given a few rules, and began online courses and instructional meetings to bring issues to light and readiness with respect to counteraction and control of COVID-19 among HCWs [17]. So this study was aimed to evaluate the knowledge, attitude and practice of Healthcare workers on COVID-19 pandemic and thereby recognize successful methodologies for conduct change in the public arena.

METHODS AND MATERIALS

A quantitative research approach with cross-sectional descriptive research design was used to assess the KAP study at Saveetha Medical College and Hospital. A total of 100 paramedic health care workers including Nurses, pharmacists, and allied health professionals were selected as eligible study participants by using a convenience sampling technique. The data collection was done after obtaining ethical clearance from the Institutional Ethical Committee of Saveetha Institute of Medical and Technical Sciences. The participants were explained separately about the purpose of the study and E-generated informed consent was obtained from them. Subsequent to obtaining the consent of the participants, a self- administered semi-structured questionnaire was developedwas formulated and circulated online to collect data from the health care workersthrough online regarding demographic variables, knowledge, attitude and practice on COVID-19 pandemic. Electronic survey tool (Google forms) was used to distribute the online-survey. The link for accessing the questionnaire was disseminated by the researchers using participant's individual e-mail id and maintained confidentiality. Survey tool mandated the participants to respond to all the questions without which the forms could not complete submission process. Their responses were recorded strictly on the basis of anonymity to avoid social desirability bias. Data analysis was done using descriptive and inferential statistics. Descriptive analysis was used to describe the demographic characteristics using frequency and percentage. Inferential statistics including Karl Pearson's correlation coefficient was utilized to discover the relationship between the knowledge, attitude and practice and Chi-square was used to associate between the level of knowledge, attitude and practice with the selected demographic variables.

RESULTS AND DISCUSSION

A total of 100 individuals participated in the study. We included paramedic health care workers like (Nurses=60, Pharmacist=10, Lab technician=10 and Allied health technicians=20) in our study in order to assess the knowledge, attitude and practice regarding COVID-19.

Demographic distribution of study participants

A total of 100 individuals partook in the study. The results revealed that the vast majority of participants 45% have a place with the age gathering 21-30 years. As for sex, 64% were females. Most of the participants 52% were single. 88% of the participants residing in urban areas and remaining 12% were belongs to rural areas. Regarding to profession, majority of the participants 38% were Nurses. As for years of experience, majority of them 42% of participants had less than <5years of experience. With regards to source of information almost 35% of participants get aware of corona virus through social media, 27% participants use Television to acquire information about corona, 16% of participants use newspaper and 22% of participants get information in hospitals.Similarly, 87.68% (*N*=363) of HCWs used social media as their main source of information, followed by radio and television (45.89%, *N*=190) and seniors/other colleagues (42.51%, *N*=176) reported by saqlain *et al*.[21] These findings are consistent with other studies which reported that the majority of HCWs use social media to seek information on COVID-19 [17].

Assessment of knowledge, Attitude and practices of paramedic health care workers towards COVID-19 pandemic

The current assessment results display that a large portion 80% had adequate knowledge, 12% had moderate knowledge and 8% had inadequate knowledge followed by 88% of participants had appropriate practice and 12% had inappropriate practice. Whereas, 84.6% of participants had positive attitude towards

COVID-19 and remaining 15.5% had negative attitude towards COVID-19 as shown in figure 1.
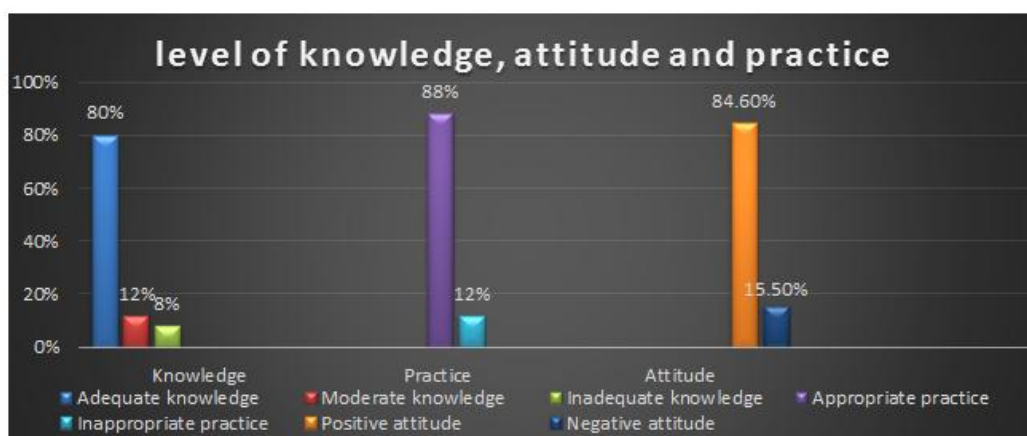

Fig-1: knowledge, Attitude and practice towards COVID-19 among paramedic health care workers

An investigation results comparable with the cross-sectional overview study conducted by Zhou *et al.* among1357 health care workers' (HCWs) across 10 clinics in Henan, China on knowledge, practices, and attitude in regards to COVID illness 2019 (COVID-19). The outcomes shows that of those overviewed, 89% of HCWs had sufficient information on COVID-19, over 85% dreaded self-disease with the infection, and 89.7% followed right practice with respect to COVID-19 [19]. Also, Ferdous *et al.* surveyed KAP towards COVID-19 through Online-based cross-sectional examination directed from March 29 to April 19, 2020 among Bangladeshi inhabitants selected by means of web-based media. Of the 2017 overview members, 57.9% belongs to the age group of 21–30 years and living in metropolitan regions (69.8%). The review uncovered that 48.3% of members had more exact knowledge, 62.3% had more positive attiudes, and 55.1% had more successive works on with respect to COVID-19 anticipation [20].

The same results were also consistent reported by saqlain *et al.* demonstrated that HCWs have great information (93.2%, N=386), a positive attitude [mean 8.43 (standard deviation 1.78)] and great practice (88.7%, N=367) with respect to COVID-19 [21]. Likewise, A cross sectional examination led by Sai Ravi TejaKamineni *et al.* conducted a survey to assess knowledge on COVID-19 among the nursing and allied health experts working in tertiary hospital. An organized poll involved 25 inquiries created by examiners was directed to 177 health experts that incorporates nursing and allied health experts. The significant discoveries of the examination uncovered that among the 177 nursing and allied health experts, 92.1% of them has sufficient information with respect to the present worldwide pandemic and 7.9% had moderate information [22]. Similarly, Al-Hanawi *et al.* evaluated the knowledge, attitudes, and practices of the Saudi public, toward COVID-19, during the pandemic from 3,388 members. The examination results found that the most of the study members were knowledgeable about COVID-19. The mean COVID-19 knowledge score was 17.96 (SD = 2.24, range: 3–22), showing a significant level of knowledge. The mean score for attitude was 28.23 (SD = 2.76, range: 6–30), demonstrating optimistic attitudes. The mean score for practices was 4.34 (SD = 0.87, range: 0–5), showing great practices [23].

Table-2: Relationship between knowledge, attitude and practice of paramedic healthcare workers on COVID-19

Variable	Correlation Coefficient	P-Value
Knowledge-Attitude	0.381*	.002
Attitude-Practice	0.624*	.004
Knowledge-Practice	0.702**	.01

* Correlation significant at p<0.05 level and**highly significant at p <0.01level.

In our study correlation results shows that positive correlation found between Knowledge-Attitude (r= 0.381, p value < 0.05), Attitude-Practice(r= 0.624, p value < 0.05), Knowledge-Practice (r= 0.702, p value<0.01) as tabulated in table 2.

Similarly, Saqlain *et al.* reports that Pearson's correlation tests revealed significant positive linear correlations between knowledge–attitude (*r*=0.106, *P*=0.030), knowledge–practice (*r*=0.142, *P*=0.016) and attitude–practice (*r*=0.174, *P*=0.004)[21] and also results consistent with the study conducted by Alahdal *et al.* found Significantly positive correlation between awareness-attitude (r = 0.132, p-value < 0.001) and attitude-practice (r = 0.149, p-value < 0.001) [24].

Association of the level of knowledge, attitude and practice with their selected demographic variables

The result discovered that there is no significant association found between selected demographic variables such as Age, residence, marital status and source of information but gender and years of experience was significantly associated with knowledge and practice at(χ2=5.18) at p<0.01 and profession was significantly associated with attitude (χ2=10.92) at p<0.001.

Giao *et al.* also found that attitude regarding COVID-19 was not associated with age (*P*=0.151), gender (χ2=0.129) and experience (χ2=0.453), but found a significant association between attitude and profession [25]. Likewise, Alahdal *et al.* also found gender to be statistically significant with both knowledge and practice at p<0.05 [24].

CONCLUSION

The study found the vast majority of HCWs had adequate level of knowledge, positive attitude and werepracticing safely most of the time.To makes progress against the spread of COVID-19, the adherence to the control measures by the Health Providers and the general population is significant. The awareness, attitude and practices of the Health care Providers towards COVID-19 disease will assume a crucial part in controlling this pandemic. This may assume an essential part in forestalling COVID-19 among HWs and stop the spread of contaminations to the network.

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