


Knowledge, Attitude and Practices of Health Care Professionals Regarding SARS-Cov-2 During the Pandemic in Greece. A Comparison between Covid and General Hospitals

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Abstract

Introduction: The high number of Covid-19 patients and the specialized treatment they need, made it necessary that certain hospitals would be dedicated to the treatment of Covid-19 patients.

Aim: The aim of this study was to compare the knowledge, attitude and practices of health care workers in covid and general hospitals, regarding SARS-Cov-2, because accurate knowledge, positive attitude and correct practice are essential for the effective treatment of covid patients.

Material and method: 451 health care professionals (25.5% physicians, 43.5% nurses, 20.4% nurse assistants and 8% of allied health professionals) in four general hospitals and a Covid hospital completed a 42-question survey from June to August 2021. The mean age was 36.5±10.3 years and ranged from 22 to 64 years old. The mean years of experience was 12.35±10.65 years and ranged from 1 to 35 years of experience. All data were coded accordingly and analyzed using the Statistical Package for Social Science (SPSS 20.0).

Result: The mean total KAP score of the study participants was 79.63%, 82.37% for covid hospital and 78.8% for general hospitals. The mean scores of knowledge (total 82.5%, general hospital 82.42%, covid hospital 82.78%) and practice (total 90.5%, general hospital 89.375%, Covid hospital 94.25%) are considered high, while the attitude scores are moderate (total 75.89%, general hospital 74.76%, covid hospital 79.66%). The study showed that there was no significant difference in knowledge scores between covid and general hospitals, on the contrary there is significant difference in the attitude, practice and KAP total scores ($p < 0.01$), ($p = 0.001$) and ($p < 0.01$) respectively.

Conclusion: The findings of the study may indicate that knowledge is not the only determinant of good attitude and practice. Further research is needed to determine the factors that are responsible for the differences found in attitude and practice between covid and general hospitals.

Keywords: SARS-CoV-2; COVID-19; Knowledge; Attitude; Practice; KAP; Healthcare professionals; Vaccination; Greece

Abbreviations: Covid-19: Coronavirus Disease 19; KAP: Knowledge, Attitude and Practices; PPE: Personal Protective Equipment

Introduction

The Coronavirus Disease-19 (COVID-19) pandemic has changed the way of living and working worldwide, especially in health care facilities [1,2]. The high number of Covid-19 patients and the specialized treatment they need, made it necessary that certain hospitals would treat only covid patients. Knowledge of the disease is considered the best way to prevent SARS-CoV-2 infection and control transmission, of the Coronavirus, as it results in better attitude and practice [3]. Health workers are the frontline forces against the disease, playing important roles both in prevention of the spread of the virus and safe treatment of Covid-19 patients. Therefore, accurate knowledge, positive attitude and correct practice are essential for effective treatment of Covid patients [4]. Healthcare workers might also be considered as role models and their attitude could have a huge impact across the society. Plethora of studies regarding the knowledge, Attitude and Practice (KAP) of general public and/or healthcare workers have been published during the first year of the SARS- CoV-2 pandemic [5], However there is not enough evidence regarding the comparison of KAP of healthcare professionals working in Covid-19 vs. General Hospitals. Therefore, the aim of the study is to compare the knowledge, attitude and practices of health care workers working in Covid-19 and general hospitals, regarding SARS-CoV-2 during the second year of the pandemic in Greece and just before vaccine against Covid-19 infection became mandatory for health care personnel. The analysis of the knowledge of healthcare workers could help to understand the factors affecting their beliefs and practices and possibly predict their behaviour.

Material and Methods

Sample and setting

A 42-question survey was conducted with a self-completed questionnaire with a section for general information and basic demographic characteristics of study participants and a second section with closed responses for the assessment and evaluation of healthworkers' knowledge, attitudes and practices regarding SARS-CoV-2. A total of five public hospitals were selected in different districts of Athens the capital city of Greece where almost half of the population of the country lives. The selected hospitals were two military hospitals, two civilian general hospitals and one hospital dedicated to Covid-19 patients. Health care professionals were asked to complete and return to the researchers the self-completed questionnaire from 01 June to 31 August 2021. All participants provided written consent. Confidentiality and anonymity were maintained. Participants were health care professionals working at the hospitals for at least one year. Students and administrative staff were excluded from the study. In total 451 questionnaires were completed, (105 from covid hospital and 346 from general hospitals) refusal rate was approximately 9.8% (no information for the potential reasons for health care workers' refusal to participate

was available). The protocol of the study and questionnaire were approved by the ethics committees of participating hospitals.

Instruments and Procedure

The questionnaire was developed by the authors according to questionnaires that have been used in previous studies assessing similar questions. The questionnaire was checked and validated for content and relevance by the authors. Internal consistency of the study questionnaire was assessed by cronbach alpha (total value 0.724). The questionnaire was pretested on 30 healthcare professionals and these questionnaires were excluded from the study. The questions were modified accordingly. The questions were answered either by yes, no, don't know, by the 3-point Likert scale (agree, undecided, disagree). The scoring method used for this KAP questionnaire was as follows: 1 point for correct and 0 points for incorrect answers in the Knowledge Section, consisting of 19 questions. 2 points for positive, 1 for neutral and 0 for negative response in the attitude section consisting of 19 questions. 2 points for proactive, 1 for neutral and 0 for passive options in the practice section, consisting of 4 questions. The score ranges were 0-19 for Knowledge, 0-38 for Attitude and 0-8 for Practice. Total KAP score range was 0-65. For KAP assessment, the widely adopted Bloom's cutoff points are the following: 80-100% (good KAP), 60-79% (moderate KAP), and less than 60% (poor KAP). This cutoff value is also based on previously published KAP studies [6,7].

Data Analysis

All data obtained from the questionnaires were coded accordingly and analyzed using statistical package for Social Science (SPSS 20.0, Chicago, USA). Descriptive data for quantitative variables were presented as median and mean±Standard Deviation (SD), and categorical variables were presented as frequencies in percentages (%). The created sub-groups for the analysis of the data were according to working position (Covid-19 hospital vs. Non Covid-19 hospital). Comparisons between groups were performed by chi square test. Pearson correlation analysis was used to compare correlations between two variables. Any value of P below 0.05 was considered statistically significant.

Result

Table 1 shows the sociodemographic characteristics of the study group (General Hospital Health Care Professionals vs. Covid-Hospital Health Care Professionals). A total of 451 healthcare workers participated in the study (133 Male/270 Female/48 missing values); 39.7% (n=179) of participants were working at military hospitals, 37% at general hospitals (n=167) and 23.3% (n=105) at a hospital dedicated to Covid-19 patients. Of the study participants 27.1% (n=118) had postgraduate degree, 29.89 (n=130) had graduated from university departments, 23.9% (n=104) from technological institutes (colleges) and 19.3% (n=84) from 2-year postsecondary education. The study group consisted

mainly of 25.5% physicians (n=115), 43.5% nurses (n=196), 20.4% nurse assistants (n=92). There were also 8% of allied health professionals, 1.1% dentists (n=5), 2.2% pharmacists (n=10), 1.3% physiotherapists (n=6), 1.6% dieticians (n=7), 0.4% pharmacy assistants (n=2), 2.4% laboratory assistants (n=11). The mean age was 36.5±10.3 years and ranged from 22 to 64 years old. The mean

years of experience were 12.35±10.65 years and ranged from 1 to 35 years of experience. The majority of the participants (73%) provided direct patient care, 11.7% (n=53) did not have direct contact with patients (pharmacy, administration, laboratories), 15.3% (n=69) worked in covid vaccination centre in the hospital.

Table 1: Socio-demographic characteristics of the study group.

Characteristics of Study Group	General Hospital		Covid Hospital	
	N	%	N	%
Sex				
Female	207	65.70%	63	71.60%
Male	108	34.30%	25	28.40%
Missing Values	31		17	
Age (Years)				
20-30	70	20.20%	7	6.70%
31-40	92	26.60%	23	21.90%
41-50	118	34.10%	32	30.50%
>51	66	19.10%	43	41.00%
Profession				
Physician	78	22.70%	37	36.60%
Nurse	161	46.90%	35	34.70%
Dentist	2	0.60%	3	3.00%
Pharmacist	10	2.90%	0	0.00%
Physiotherapist	6	1.70%	0	0.00%
Dietician	6	1.70%	1	1.00%
Nurse assistant	73	21.30%	19	18.80%
Pharmacy assistant	2	0.60%	0	0.00%
Laboratory assistant	5	1.50%	6	5.90%
Missing Values	3		4	
Work Experience (Years)				
01-May	39	29.60%	25	25.30%
06-Oct	99	11.60%	6	6.10%
Nov-15	49	14.60%	18	18.20%
16-20	42	12.50%	7	7.10%
21-25	47	14.00%	8	8.10%
26-30	25	7.50%	11	11.10%
>31	34	10.10%	24	24.20%
Missing Values	1		6	
Education				
2 year post-secondary	70	20.60%	18	17.80%
Technological	74	21.80%	30	29.70%
University	108	31.90%	22	21.80%
Postgraduate	87	25.70%	31	30.70%
Missing Values	7		4	

Knowledge Regarding SARS-CoV-2

The first set of questions measured the participants' knowledge of the general information, clinical characteristics, and preventive measures of Covid-19 as shown in Table 2. A total of 96.9% (n=431)

answered correctly that covid-19 is a viral disease, 99.6% (n=449) that it is transmitted by droplets and direct contact, 71.8% (n=319) that the incubation period is 2-14 days. 51.2% (n=231) answered that covid-19 can also be transmitted sexually. The vast majority

of the participants, 97.1% (n=438) identified fever to be the most common symptom, 62.2% (n=271) reported that the symptoms of COVID-19 are similar to those of seasonal influenza, 79.9% (n=358) answered that the vaccine against influenza cannot protect them against COVID-19 and 67.1% (n=296) answered that antibiotics are not first line treatment. In addition, 78.7% (n=354) believe that Covid-19 cannot be transmitted by domestic animals and 34.2% (n=154) agree that Covid-19 is of zoonotic origin. Over 91.8% (n=450) answered correctly considering the preventive measures (washing hands, avoiding touching eyes, nose, mouth, wearing mask, covering mouth and nose when coughing, avoiding crowds, frequently cleaning surfaces, keeping at least one meter distance

between people), however 22.6% (n=102) answered that washing nose with a salty solution can prevent covid-19. Finally, 93.3% (n=418) replied that patients with Covid-19 should be treated in isolation. The mean knowledge score of the study participants was 15.68 ± 1.745 and ranged from 8 to 19 correct answers with the mean correct answer rate of questions 82.5%. The mean knowledge score for health professionals working in Covid hospital was 15.73 ± 1.552 , ranged from 12 to 19 correct answers with the mean correct answer rate of questions 82.78% and respectively for general hospitals 15.66 ± 1.801 , with the mean correct answer rate of questions 82.42%.

Table 2: Knowledge about Covid-19 infection.

Right Answer	General Hospital		Covid Hospital		Total		P Value
	N	%	N	%	N	%	
Covid-19 infection is caused by a virus	330	96.5	101	98.1	431	96.9	0.497
Covid-19 infection is transmitted by droplets and direct contact	344	91.4	105	100	449	99.6	0.49
The incubation period is 2-14 days	238	70	81	77.9	319	71.8	0.86
Covid-19 cannot be transmitted sexually	168	48.5	63	60	231	51.2	0.17
The symptoms of COVID-19 are similar to those of seasonal influenza	206	62.2	65	61.9	271	62.2	0.417
The vaccine against seasonal influenza cannot protect against COVID-19	283	82.3	75	72.1	358	79.9	0.02
Antibiotics are not first line treatment.	230	68	66	64.1	296	67.1	0.71
Covid-19 cannot be transmitted by domestic animals	264	76.5	90	85.7	354	78.7	0.194
Covid-19 is of zoonotic origin	124	35.9	30	28.6	154	34.2	0.109
Washing nose with a salty solution cannot prevent covid -19	191	56	55	52.4	246	55.2	0.86
Patients with covid -19 should be treated in isolation	328	95.1	90	87.4	418	93.3	0.09
Preventive Measures							
Washing hands	346	100	104	91	450	91.8	0.07
Avoiding touching eyes, nose, mouth	343	91.4	105	100	448	99.6	0.44
Wearing mask	343	91.7	105	100	448	99.8	0.06
Covering mouth and nose when coughing	345	91.7	103	98.1	448	99.3	0.08
Avoiding crowds	342	91.1	105	100	447	99.3	0.34
Frequently cleaning surfaces	337	98	105	100	442	98.4	0.17
Keeping at least one meter distance between people	322	93.3	102	98.1	424	94.4	0.06

Attitude Regarding SARS-CoV-2

The second set of questions aimed to reveal the participants' attitude towards Covid-19 pandemic. The results are shown in Table 3. The majority of the study participants (81.8%) (n=367) believe that they have the necessary knowledge and are able to protect themselves from Covid-19 and do not feel fear, whereas 3.8% (n=17) answered that they are in panic and do not know what to do. 68.1% (n=305) believe that the regulations taken by official institutions can effectively prevent the spread of the disease and 54.6% (n=245) that these regulations can effectively combat the disease, while 17% (n=76) believe that the recommendations for

pandemic management are complicated and incomprehensible. 83.1% (n=375) consider Covid-19 as a severe disease, but 80.1% (n=355) also believe that Covid-19 infection can be prevented. 84.8% (n=379) of study participants believe that contact precautions prevent effectively the spread of the disease. In addition 84.1% (n=376) answered that the spread of Covid-19 in the hospital can be prevented by the active role of healthcare professionals and 82% (n=369) are concerned that they could be responsible for the transmission of disease. 85.1% (n=383) believe that the majority of Covid-19 patients recover from the disease and only 26.8% (n=121) identified Covid-19 as a fatal disease, while 20.7% (n=93) answered that all Covid-19 patients should be examined in ER.

Table 3: Attitude and practice.

Answer	General Hospital		Covid Hospital		Total		P Value
	N	%	N	%	N	%	
Attitude							
They have the necessary knowledge and are able to protect themselves from COVID-19 and do not feel fear	279	80.8	88	84.6	367	81.8	0.12
They are in panic and do not know what to do	16	4.6	1	1	17	3.8	0.11
The regulations taken by official institutions can effectively prevent the spread of the disease	226	65.9	79	75.2	305	68.1	0.022
The regulations taken by official institutions can effectively combat the disease	174	50.6	71	67.6	245	54.6	<0.01
The recommendations for pandemic management are complicated and incomprehensible	61	17.8	15	14.3	76	17	0.007
Covid-19 is a severe disease	284	82	81	86.7	375	83.1	0.002
Covid-19 infection can be prevented	272	64.7	153	90.5	355	80.1	0.57
Contact precautions prevent effectively the spread of the disease	286	83.2	93	90.3	379	84.8	0.005
The spread of Covid-19 in the hospital can be prevented by the active role of healthcare professionals	291	84.8	85	81.7	376	84.1	0.357
They could be responsible for the transmission of the disease.	279	80.6	90	86.5	369	82	582
The majority of covid -19 patients recover from the disease	293	84.9	90	85.7	383	85.1	0.181
Covid-19 is a fatal disease	84	24.3	37	35.2	121	26.8	0.085
All covid-19 patients should be examined in ER	59	17.1	34	32.4	93	20.7	0.002
Vaccination against SARS-CoV-2 should become mandatory for all healthcare professionals	153	44.2	62	60.2	215	47.9	0.001
Healthcare professionals should be vaccinated against SARS-CoV-2 to protect high risk patients	217	62.9	83	79.1	300	66.6	<0.01
Healthcare professionals should be vaccinated if they suffer from a chronic disease	238	68.8	85	80.9	323	71.6	0.001
Covid-19 vaccines protect efficiently against the disease	178	51.5	59	56.2	237	52.6	0.128
Covid-19 vaccine may have severe side effects	118	34.1	18	17.2	136	30.2	<0.01
The pandemic has negative impact on work, way of life and economy	316	91.6	99	94.3	415	92.2	0.31
Practice							
The use of personal protective equipment (PPE) is necessary when treating Covid-19 patients	341	98.6	104	99	445	98.6	0.18
They always wash hands before and after touching a patient	271	78.6	86	81.9	357	79.3	0.401
They always wash their hands before and after wearing gloves	240	71.9	82	78.1	322	73.3	0.453
They were already vaccinated or intended to be vaccinated for SARS-CoV-2.	289	83.5	103	98.1	392	86.9	0.001

Less than half of the study participants 47.9% (n=215) answered that vaccination against SARS-CoV-2 should become mandatory for all healthcare professionals, while 66.6% (n=300) believe that healthcare professionals should be vaccinated against SARS-CoV-2 to protect high risk patients and 71.6% (n=323) believe healthcare professionals should be vaccinated if they suffer from a chronic disease. More than half of the study participants

52.6% (n=237) believe Covid-19 vaccines protect efficiently against the disease, and 30.2% (n=136) believe that covid-19 vaccine may have severe side effects. Finally, 92.2% (n=415) are concerned that the pandemic has a negative impact on their work, way of life and economy. The mean attitude score of the study participants was 28.84±4.491 and ranged from 15 to 38 points for positive attitude, with the mean point rate 75.89%. The mean attitude score for

health professionals working in covid hospital was 30.27 ± 4.084 , ranged from 19 to 36 points with the mean point rate 79.66% and respectively for general hospitals 28.41 ± 4.524 , range of 15 to 38 points with the mean point rate 74.76%.

Practices Regarding SARS-CoV-2

The last part of the questionnaire was about the participants' practices towards Covid-19 pandemic. The results are shown in Table 3. The vast majority 98.6% (n=445) consider necessary the use of Personal Protective Equipment (PPE) when treating Covid-19 patients, 79.3% (n=357) reported that they always wash their hands before and after touching a patient and 73.3 (n=322) always wash their hands before and after wearing gloves. Finally, 86.9% (n=392) were already vaccinated or intended to be vaccinated for SARS-CoV-2. The mean practice score of the study participants was 7.24 ± 1.061 and ranged from 2 to 8 points for proactive practice, with the mean point rate 90.5%. The mean practice score for health professionals working in covid hospital was 7.54 ± 0.797 , ranged from 5 to 8 points with the mean point rate 94.25% and respectively for general hospitals 7.15 ± 1.114 , range of 2 to 8 points with the mean point rate 89.375%. The mean total KAP score of the study participants was 51.76 ± 5.589 and ranged from 26 to 63 points, with the mean point rate 79.63%. The mean KAP score for health professionals working in covid hospital was 53.54 ± 5.140 , ranged from 39 to 63 points with the mean point rate 82.37% and respectively for general hospitals 51.22 ± 5.614 , range of 26 to 61 points with the mean point rate 78.8%.

Discussion

Not surprisingly, since the study took place during the second year of the pandemic, healthcare professionals had generally good knowledge of COVID-19, as there was enough time for training. The mean correct answer rate was 82.5%. There were also studies that took place earlier in the pandemic and showed high levels of knowledge and attitude, [8] however some others reported a gap in knowledge [9,10] or in attitude and practice [11]. Even though the mean knowledge score for health professionals working in covid hospital was higher than in general hospitals, there is no significant difference between the knowledge scores of the covid dedicated hospital and the general hospitals. On the contrary there is significant difference in the attitude, practice and KAP total scores ($p < 0.01$), ($p = 0.001$) and ($p < 0.01$) respectively. Furthermore, even though the mean scores of knowledges (82.5%) and practice (90.5%) can be considered high according to Bloom's cutoff points, the attitude scores are moderate for both general (74.76%) and covid hospitals (79.66%). This finding may show that knowledge is not the only determinant of good attitude and practice and is in line with results from previous studies [12].

There is significant difference in some of the questions regarding stance and attitudes of healthcare professionals. 90.3% of covid hospital health professional vs. 83.2% of general hospital agreed that contact precautions prevent effectively the spread of the disease ($p = 0.05$). Even though professionals in general hospitals have the knowledge that contact precautions should

be used, 16.8% do not consider them enough to protect them. On the contrary, healthcare professionals working with covid-19 patients report that they feel safe and protected by using the contact precautions, possibly because their experience has shown the effectiveness of using them. However, both ratios in this study are far below the 95.6% of health professionals that agreed that standard precautions can protect them against Covid-19 in a study in Egypt [8]. On the other hand, a study assessing Brazilian endodontists' knowledge, 76.53% of participants considered conventional Personal Protective Equipment (PPE) insufficient to prevent COVID-19 transmission [13]. 86.7% of health professionals in covid hospitals believe that Covid-19 is a severe disease vs. 82% in general hospitals ($p = 0.02$). Interestingly, no health worker from covid hospital answered 'Disagree' or 'Strongly Disagree' in this question. It is possible that covid hospitals treat patients in more serious conditions, thus the difference in perception between healthcare workers in covid and non-covid hospitals. An interesting finding is that 17.1% of healthcare workers in general hospitals vs. 32.4% of healthcare workers in covid hospitals ($p = 0.02$) answered that all covid-19 patients should be examined in ER. It is possible that this finding needs further analysis and research as it may show a gap in primary care that needs to be addressed. Considering the official regulations, healthcare professionals working in covid hospital have a more positive stance than those in general hospital. 65.2% of health professionals in general hospitals vs. 75.2% in Covid hospitals ($p = 0.022$), believe that the regulations taken by official institutions are enough to prevent the spread of the disease, 50.6% of health professionals in general hospitals vs. 67.6% in covid hospitals ($p < 0.01$) consider that official regulations are enough to combat the disease, while 17.8% of healthcare workers in general hospitals vs. 14.3% in covid hospitals believe that the recommendations for pandemic management are complicated and incomprehensible ($p = 0.007$). In this study, there is statistical difference between the two study groups in most of the questions regarding vaccination against Covid-19. Generally, healthcare workers in the covid hospital had a more positive stance towards vaccination.

The proportion of Greek healthcare professionals that were already vaccinated or intended to accept vaccination was 98.1% in Covid Hospital vs 83.5% of healthworkers in general hospitals, ($p = 0.001$). This proportion is much higher in comparison with a previous study where only 43.3% of healthcare professionals were willing to get vaccinated [14] and also higher in comparison with the Greek general population where only 57.7% were willing to uptake of Covid Vaccine [15]. It could also be considered high compared to the findings of a systematic review where the proportion of healthcare workers that intended to accept vaccination was 63.5% varying among studies from 27.7% to 90.1% [16]. However, in a study in Indonesia the respective percentage was 91.71% [12] and 92.4% in Vietnam [3].

Regarding their attitude towards vaccination, 60.2% of healthcare workers in covid hospital vs. 44.2% in general hospitals ($p = 0.01$) answered that vaccination against SARS-CoV-2 should

become mandatory for all healthcare professionals. 79.1% of health professionals in covid hospitals vs. 62.9% of healthcare professionals in general hospitals ($p < 0.01$) believe that healthcare professionals should be vaccinated against SARS-CoV-2 especially if they work with high-risk patients. 80.9% of healthcare workers in covid hospitals vs. 68.8% in general hospitals ($p = 0.01$) believe that healthcare professionals should be vaccinated if they suffer from a chronic disease. Only 17.2% of health professionals in Covid Hospitals vs. 34.1% in general hospitals ($p < 0.01$) believe that covid-19 vaccine may have severe side effects. It seems that health professionals believe that vaccination against Covid-19 infection is an important preventive measure, and they support vaccination against SARS-CoV-2 even more than general vaccination. A study aiming to evaluate the stance of Austrian healthcare workers towards general vaccination reported lower percentages of positive attitudes.

The main reasons for getting vaccinated were self-protection (87.5%), prevention of epidemics (54.5%), protection of others (54.5%) and protection of patients (42.9%), while the most important reason for vaccination reluctance was the fear of side effects (67.2%) [17]. However, there seems to be an important misconception regarding Covid-19 vaccination. 21.2% of healthcare workers in the Covid-19 hospital vs. 10.5% in general hospitals, answered that the vaccine against influenza can protect them against Covid-19 ($p = 0.024$). It is also interesting that there were more wrong answers from professionals working in the Covid-19 hospital. It seems that this issue should be addressed as it may have negative impact on the annual seasonal influenza vaccination adherence of health professionals in Greece.

Conclusion and Recommendations

Even though knowledge is at a high level among Greek health professionals both in Covid-19 and General hospitals, it seems that there are still issues that need clarification. This study showed that it is possible that knowledge is not the only determinant of good attitude and practice. A positive attitude should be encouraged as it was found in this study to be at a moderate level. Research is also needed to explore the reasons behind the differences in stance and practices between Covid-19 and general hospitals. It would also be interesting to identify possible changes of the attitude of health professionals on Covid-19 vaccination after it became mandatory in Greece.

Limitations

The number of allied health professionals, (dentists, pharmacists, dieticians etc.) was too small for further analysis in this study. Additionally, as the study was conducted in only one city, there may be geographical bias, to some extent.

Authors' Contributions

All authors discussed the results and implications and commented on the manuscript at all stages. PS, FS and AZ designed the study. GM and AR carried out the statistical analysis of the data. PS, GM and EK edited the manuscript. MK and EM wrote the

manuscript. PS, NS, EG, AD, OM, supervised the study and edited the final draft of the manuscript. The authors read and approved the final manuscript.

Availability of Data and Materials

All data analyzed during this study are available from the corresponding author on reasonable request.

Ethics Approval and Consent to Participate

All participants provided written consent. Confidentiality and anonymity were maintained. The protocol of the study and questionnaire were approved by the Ethics Committees of participating hospitals.

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