

An Impact of COVID-19 Pandemic on The Motivation and Psychological Well Being of Dermatology Residents

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ABSTRACT

Objective: To analyze the motivation and psychological well-being to perform duties during the COVID-19 pandemic among the dermatology residents.

Study Design: Cross-sectional survey.

Place and Duration of Study: Dermatology Department, Combined Military Hospital, Rawalpindi, from Mar to Sep 2020.

Methodology: A total of 155 dermatology residents were included in the study. Health care provider motivation scale (HCPMS) was used through online Google Doc due to lockdown. Secondary data was also generated from Google scholar, newspapers, journals, reports and the literature review.

Results: We analyzed the impact of COVID-19 on motivation and psychological well-being. The result showed that the COVID-19 pandemic has an adverse effect on motivation due to anxiety (31%), stress (23%) and depression (27%) among dermatology residents. There was statistically significant relationship between decreased motivation and increased stress levels and depression among dermatology residents performing COVID-19 duties ($p < 0.001$).

Conclusion: Due to extra duties in the COVID-19 pandemic, the motivation and psychological well-being were severely affected among dermatology residents.

Keywords: Anxiety, COVID-19 pandemic, Dermatology residents, Depression, Health care provider motivation scale (HCPM) Scale, Motivation, Stress.

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INTRODUCTION

COVID-19 pandemic started from Wuhan, China by the end of December 2019,¹ and later spread to many countries. Early efforts were focused on describing the clinical course, counting severe cases and treating the sick.² The first two confirmed cases of COVID-19 in Pakistan were reported on February 26, 2020, simultaneously in Islamabad and Karachi.³ The initial spread of the disease was slow due to six weeks lockdown, but after Eid-ul-fitra, there was an exponent rise in the number of new cases and deaths throughout the country.⁴

WHO declared the COVID-19 outbreak a public health emergency of international concern (PHEIC) on January 30, 2020.⁵ Corona virus is single-stranded, enveloped RNA virus that infect animals and humans alike. The beta-coronavirus may cause severe disease and deaths, whereas the disease caused by alpha-coronavirus is mild.⁶ On July 19, 2020, the total number of confirmed cases of COVID-19 in Pakistan were 263,496, with 59,220 active cases, 5,568 deaths and 204,276

recovered patients.⁷ There is an enormous burden of this pandemic on both private and public sector hospitals throughout the country. The pandemic has significantly affected the health professionals, both physically and psychologically. In Pakistan, out of 509 health care workers affected by COVID-19 till May 4, 2020, 52% were doctors, 33% paramedics and 15% were nurses.^{8,9}

Our study was planned to analyze the motivation and psychological well-being among dermatology residents during the COVID -19 pandemic.

METHODOLOGY

This was a cross-sectional survey conducted from March to September 2020 at Dermatology Department, Combined Military Hospital Rawalpindi. A total of 155 participants were included in the study. The online survey was prepared in collaboration with the Institute of holistic medicine and positive energy psychology. All the relevant ethical guidelines were followed and Ethical Committee approval was taken (IERB no. 122/11/2020 dated 4/11/2020).

Inclusion Criteria: Dermatology residents working in different hospitals of Pakistan were included in the study.

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Exclusion Criteria: Non-consenting residents were excluded from the study.

The questionnaire was administered through an online Google survey platform. One hundred fifty-five dermatology residents completed the survey from both civil and military hospitals all over the country.

The survey questionnaire comprised a short demographical section to take the information regarding gender, age, marital status, health facilities, work categories, type of job, current working hours, training years, and duties they perform with COVID patients. A questionnaire was prepared using the health care provider motivation scale (HCPMS).¹⁰ It had 16 items and four subscales, each measuring anxiety, stress, motivation and depression. Cronbach alpha value of the scale was 81.9%.¹¹ Secondary data was also generated from Google scholar, newspapers, journals, reports and the literature review.

Statistical Package for Social Sciences (SPSS) version 23 was used for the data analysis. Qualitative variables were summarized as frequency and percentages. Linear regression was applied to find out the statistical difference. The *p*-value of ≤ 0.05 was considered statistically significant.

RESULTS

Out of 155 study participants, there were 130 (83.8%) females and 25 (16.2%) males, 130 residents were married. 134 (86.4%) respondents were working for 20 hours/week, 13 (8.4%) were working between 21-40 hours, while 8 (5.2%) were working from 40-60 hours/week (Table-I).

Most of the participants 137 (89%), were working at the tertiary level, 5 (3%) respondents were working at the primary level and 13 (8.4%) at the secondary level. Most of the residents 73 (47.1%) were performing both indoor and outdoor duties in COVID wards. 53 (34.2%) residents were working only in COVID wards and 18 (11.6%) were working in COVID outpatient.

Table-II showed the participants' responses to questions regarding motivation, stress, anxiety and depression. More than 90% of the respondents mentioned that they get upset on hearing the bad news about COVID-19 and could infect their families by catching the virus from the hospitals. About 60% respondents said that they could not manage their important tasks during this time and felt insecure due to the unavailability of proper PPEs and unrealistic working conditions. They were getting exhausted and were more anxious. In 50% residents were panicked, insomniac

and restless and in a low mood while working during COVID pandemic and felt unmotivated because of the fear of catching this life-threatening condition and thinking that being a dermatology resident it was not their job to work in emergency and critical care. The majority of residents disagree that their health conditions and co-morbid conditions were barriers to working with COVID patients.

Table-I: Descriptive statistics of respondents.

Parameters	n (%)
Gender	
Male	25 (16.1%)
Female	130 (83.9%)
Marital Status	
Married	130 (83.9%)
Unmarried	25 (16.1%)
Working Hours	
1-20	134 (86.4%)
21-40	13 (8.4%)
41-60	8 (5.2%)
Age (years)	
25-30	56 (36.1%)
31-35	71 (45.8%)
36-40	18 (11.6%)
41-45	10 (6.5%)
Health Facility	
Primary	5 (3.0%)
Secondary	13 (8.4%)
Tertiary	137 (89.0%)
Work Category	
Indoor	18 (11.1%)
Outdoor	53 (34.2%)
Emergency	4 (2.6%)
On Call	7 (4.5%)
Mix	73 (47.1%)
Type of Job	
Full time	124 (80.0%)
Part time	31 (20%)
Years of Training	
First Year	27 (17%)
Second Year	38 (24.1%)
Third Year	90 (58.1%)
Dealing with COVID Cases	
Yes	126 (81.3%)
No	29 (18.7%)
Skin & Other Duties	
Seeing normal skin OPD	52 (33.5%)
Attending admitted Patients	30 (19.4%)
Not seeing any PT	18 (11.6%)
Seeing one and two option	55 (35.5%)

Table-III showed the linear regression analysis. Our regression model showed 41.6% of the dependent variable was explained by independent variables. The predictors (constant) were anxiety, stress, depression

Table-II: Distribution of responses from dermatology residents (n=155).

Statements	Agree Frequency & %	Disagree Frequency & %	Neutral Frequency & %
I am really upset to listen to the news about Corona Casualties	146 (94%)	2 (1%)	7 (4.5%)
As a trainee I fear the safety of my family and friends	147 (94.5%)	4 (2.5%)	4 (2.5%)
Sometimes I become panicked to perform duties as dermatology resident	85 (54.8%)	37 (23.8%)	33 (21.3%)
I fell restlessness and unable to stay calm	92 (59.3%)	33 (21%)	30 (19.4%)
Because of fear I feel non motivated in my current job	71 (45.8%)	56 (36.1%)	28 (18.1%)
Because of COVID-19 I will not be able to manage important tasks related to my current job	104 (67%)	35 (22.5%)	16 (10.3%)
I feel stressed because of we are provided with unrealistic working conditions	122 (78.7%)	14 (9%)	19 (12.3%)
Working in COVID-19 provides me with lots of insecurities	112 (72.2%)	15 (9.6%)	28 (18.1%)
I am not motivated because it is life threatening condition and have fear to catch it	87 (56.1%)	34 (21.9%)	34 (21.9%)
I feel not motivated because of my institution did not appropriate PPE	97 (62.5%)	28 (18%)	30 (19.4%)
I feel non motivated because I am resident and this is not my job to look after serious/ emergency medical care	70 (45.1%)	52 (33.5%)	33 (21.3%)
Now a days I get tired for no reason	97 (62.5%)	40 (25.8%)	18 (11.6%)
I am non motivated because of my health and comorbid condition, do not allow me to take risk	37 (23.8%)	93 (60%)	25 (16.1)
I have trouble sleeping at night in present situation	68 (43.8%)	56 (36.1%)	31 (20.1%)
I feel more anxious then usual	104 (67%)	28 (18%)	23 (14.8)
My mood getting off & sad most of the time on duty in present pandemic	73 (47.2%)	46 (29.6%)	36 (23.2%)

and the dependent variable was dermatology residents' motivation. Therefore, there was a statistical difference in anxiety ($p<0.001$), stress ($p<0.001$), depression ($p=0.005$). This showed that COVID-19 situation adversely effected the motivation of dermatology residents.

Table-III: Linear regression analysis.

Variables	Un Standardized Coefficient		Standardized coefficient		p-value
	B	Std. error	Beta	t	
1(Constant)	-2.953	1.864		-	-
Anxiety	0.399	0.105	0.280	3.807	<0.001
Stress	0.645	0.132	0.346	4.870	<0.001
Depression	0.374	0.132	0.199	2.837	0.005

DISCUSSION

Since the start of the COVID pandemic, every country suffered in almost the similar manner. The number of new cases emerged suddenly and was unpredictable for all the public health experts.¹² The hospital beds, lifesaving equipment, drugs and personal protective equipment (PPE) were not adequate, especially in developing countries.¹³ Several studies have been published regarding the psychological impact of this pandemic in the general population and particularly health workers.^{14,15} This study has taken a different angle by checking the level of motivation among the young residents of the speciality who were

not dealing with severe and life-threatening patients and in which the majority of the residents were females.

The 155 participants of this study were mostly young, married females working in tertiary care hospitals. The majority of them were full-time, final-year residents, working with COVID positive cases, performing both indoor and outdoor duties with 20-30 working hours per week. Anxiety was seen in 31% of the residents, depression in 27%, stress in 23% and sleeping disorder in 19% of the residents. There was a statistically significant relationship between decreased motivation and increased levels of stress and depression among dermatology residents performing COVID-19 duties. Our results showed that the level of stress, anxiety and depression in the dermatology residents performing duties with Corona-virus patients had significantly deteriorated their level of motivation.

We compared our results with few international studies. Psychiatric morbidity is recognized in the health care workers in Nepal during COVID-19 pandemic. It is recommended that some form of psychological support be provided at the Government level to reduce the psychotic morbidity in the health care workers.¹⁵ In China, the young health care workers (age <35 years), who performed >3 hours duty for corona patients per day, suffered from a general anxiety disorder.

der, depressive symptoms, and disturbed sleep.¹⁶ In health care workers from India and Singapore performing duties with COVID patients, the most commonly reported physical symptoms were headache (31.9%), throat pain (33.6%), lethargy (26.6%) and insomnia (21%). The most prevalent psychiatric symptoms were anxiety (15.7%), depression (10.6%) and stress (5.2%).¹⁷

In another survey conducted on health care workers working in fever clinics or wards of patients with COVID-19, there were reportedly high rates of symptoms of depression, anxiety, insomnia, and distress.¹⁸

In a study from China, COVID-19 contributed to the psychological distress of nurses, physicians, respiratory therapists, aides and other health care workers providing direct frontline care to patients with COVID-19. Health care workers were seeing fellow health workers becoming ill and dying, worrying about infecting family members with coronavirus from hospitals, worrying about assuming new or unfamiliar clinical roles and extended workload, limited access to mental health services for managing depression, anxiety and psychological distress.¹⁹

Some different factors were highlighted in an Iranian study.²⁰ Older health care workers enjoyed better mental. Higher education was a better predictor of physical and mental health. The female gender experienced more distress and depression. Health workers in private hospitals had better mental and physical health and better job satisfaction with much lower stress, probably due to a better work environment, duty hours and availability of PPEs.

The COVID-19 pandemic has adversely affected the motivation of dermatology residents due to increased frequency of anxiety, depression and stress. Psychological wellbeing in a working scenario plays a vital role to increase motivation.

CONCLUSION

Due to extra duties in the COVID-19 pandemic, the motivation and psychological well-being were severely affected among dermatology residents.

Conflict of Interest: None.

Authors' Contribution

AAM: Direct contribution, SS: Intellectual contribution.

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