

PSYCHOLOGICAL IMPACT AMONGST MEDICAL STUDENTS IN COVID 19 ERA

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Abstract: This study aims to assess psychological impact of COVID-19 pandemic on the MBBS students. The setting was virtual & design is cross-sectional. Out of 287 participants 26.13% faced some form of stress (1.74% were severe); 26.13% had anxiety (3.83% severe) and 47.04% had depression (4.88% severe). Females were found to be more depressed, anxious and stressed. Juniors had a higher negative impact than seniors. Students residing outside Goa had less adverse impact compared to Goan residents. Students were most worried about Academics; followed by rise in COVID cases and family health. Majority of students (nearly 14 in 20) used Television and Online streaming platforms to cope; followed by Exercise & Family time. Thus, COVID-19 pandemic did impact the psychological status of participants negatively

Keywords: COVID-19, Psychology, Medicos

INTRODUCTION:

The 2019 coronavirus disease (COVID-19) pandemic is a global health threat [1]. It originated in Wuhan of Hubei Province of China and was first reported in December 2019. A novel coronavirus was identified as the causative pathogen [2,3,4,5]. It was reported by the WHO on 30 December 2019. The number of cases escalated rapidly and on 30 January 2020 WHO declared it as Public Health Emergency of International Concern. Looking at the rapidly growing trend of new cases and the impact on the Global Health, WHO characterised COVID-19 as a Pandemic on 11 March 2020 [6,7].

India reported its first case of COVID-19 on 30 January 2020, originating from China. The cases quickly escalated in March and several new cases were then being recorded from all over the country. The Indian government announced a nationwide lockdown on 24 March 2020. In Goa the first case of COVID-19 pandemic was reported on 25 March 2020. As the number of positive cases in Goa increased steadily, the Directorate of Education issued a circular that no student would be permitted in schools and colleges in view of COVID-19 situation.

The COVID-19 pandemic has taken a heavy toll on the health of people both internationally as well as nationally. The lockdown imposed led to the closure of schools and colleges which could have led to compounding of negative emotions leading to psychological distress among the student population especially among medical students, as the medical curriculum is vast and requires in-depth understanding of concepts and acquiring clinical skills which got disrupted during the COVID-19 related lockdown.

The study therefore aimed to assess the psychological impact of COVID-19 in Medical students, the factors responsible and coping mechanisms used. This may help the government agencies and healthcare professional in safeguarding the psychological wellbeing of the student community during trying times.

MATERIAL AND METHODS:

After obtaining institutional ethical clearance, data was collected using study tool consisting of a 31-item online questionnaire using the DASS-21 Scale which was provided to the MBBS students of a government medical college as a Google form via WhatsApp groups after due permission from group admins. **Data Analysis:** Data was analysed using Microsoft Excel and proportions, percentages and Chi square Test was applied. Out of 287 participants, 26.13% faced some form of stress (1.74% were severe); 26.13% had anxiety (3.83% severe) and 47.04% had depression (4.88% severe). Females were found to be more depressed, anxious and stressed. Juniors had a higher negative impact than seniors. Students residing outside Goa had less adverse impact compared to Goan residents. Students were most worried about Academics; followed by rise in covid cases and family health. Majority of students (nearly 14 in 20) used Television and Online streaming platforms to cope; followed by Exercise & Family time.

Inclusion Criteria:

Consenting students who are presently pursuing MBBS degree in Goa Medical College and Have a WhatsApp number were included in the study.

Study Tool: a) Google Doc form b) Depression Anxiety & Stress Scale c) Mobile

Data Collection: Data was collected over two months (April-May 2020). Due to the lockdown imposed by the Indian Government students of Goa Medical College were invited to participate in the survey through social media. Since all students possess a phone and WhatsApp number, an anonymous online questionnaire was used as the study tool namely Depression, Anxiety and Stress Scale (DASS-21) to assess the psychological impact. A Google doc form was prepared along with the consent form. After obtaining permission from the admin of the WhatsApp group of various batches, a link to the form was posted in the concerned group. Each participant on opening the link first gave consent to participate and only if the student consents to participate, the Questionnaire would open. The student would then fill the details and submit the same online. The data obtained was analysed to understand their levels of psychological impact, anxiety, depression and stress. Proportion, percentages were calculated and Chi square was applied.

PSYCHOLOGICAL STATUS		STRESS		ANXIETY		DEPRESSION		Total
		Nu	%	Nu	%	Nu	%	
Normal (unaffected)		212	73.87	212	73.87	152	52.96	576
Affected	Mild	34	11.85	40	13.94	44	15.33	118
	Moderate	26	9.06	16	5.57	56	19.51	98
	Severe	10	3.48	8	2.79	21	7.32	39
	Extremely severe	5	1.74	11	3.83	14	4.88	30
Total		287	100	287	100	287	100	861

Table 1: Distribution of study participants as per psychological status

STATUS		STRESS				ANXIETY				DEPRESSION			
		Males		Females		Males		Females		Males		Females	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Normal(unaffected)		76	79.2	136	71.2	74	77.1	138	72.3	57	59.4	95	49.7
Affected	Mild	9	9.38	25	13.1	13	13.5	27	14.1	17	17.7	27	14.1
	Moderate	8	8.33	18	9.42	5	5.21	11	5.76	13	13.5	43	22.5
	Severe	2	2.08	8	4.19	2	2.08	6	3.14	6	6.25	15	7.85
	Extremely severe	1	1.04	4	2.09	2	2.08	9	4.71	3	3.13	11	5.76
Total		96	100	191	100	96	100	191	100	96	100	191	100
Chi square test		4.11				0.77				2.38			

Table 2: Distribution of study participants according to sex and psychological impact

Degree of freedom = $(2-1)(2-1)=1$

Table Value of χ^2 at 5% level of significance = 3.84

STATUS		STRESS				ANXIETY				DEPRESSION			
		Junior		Senior		Junior		Senior		Junior		Senior	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Normal(unaffected)		93	71	119	76.3	88	67.2	124	79.5	63	48	89	57.1
Affected	Mild	20	15.3	14	8.97	28	21.4	12	7.69	18	14	26	16.7
	Moderate	14	10.7	12	7.69	7	5.34	9	5.77	34	26	22	14.1
	Severe	3	2.29	7	4.49	6	4.58	2	1.28	9	6.9	12	7.69
	Extremely severe	1	0.76	4	2.56	2	1.53	9	5.77	7	5.3	7	4.49
Total		131	100	156	100	131	100	156	100	131	100	156	100
Chi square test		1.03				5.59				2.29			

Table 3: Distribution of study participants according to seniority and psychological impact

JUNIOR: 1ST TO 5TH SEM

SENIOR: 6TH TO 8TH SEM

Degree of freedom= (2-1)(2-1)=1

Table Value of χ^2 at 5% level of significance=3.84

STATUS	STRESS				ANXIETY				DEPRESSION				
	Goa		Outside Goa		Goa		Outside Goa		Goa		Outside Goa		
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	
	Normal(unaffected)	200	73.3	12	85.7	200	73.3	12	85.7	144	52.7	8	57.1
Affected	Mild	33	12.1	1	7.14	39	14.3	1	7.14	40	14.7	4	28.6
	Moderate	25	9.16	1	7.14	15	5.49	1	7.14	54	19.8	2	14.3
	Severe	10	3.66	0	0	8	2.93	0	0	21	7.69	0	0
	Extremely severe	5	1.83	0	0	11	4.03	0	0	14	5.13	0	0
Total	273	100	14	100	273	100	14	100	273	100	14	100	
Chi square test	1.07				1.07				0.10				

Table value of χ^2 at 10% level of significance=2.71

Table 4: Distribution of study participants and according to residence and psychological impact

Degree of freedom= (2-1)(2-1)=1; Table Value of χ^2 at 5% level of significance=3.84

Figure 1: Pie chart showing things which worried participants most (uploaded as image)

Figure 2: Pie chart showing coping mechanisms used by participants (uploaded as image)

DISCUSSION:

In the present study it was noted that 26.13%, 26.13% and 47.04% of undergraduate medical students had some form of Anxiety, Stress and Depression respectively. Nileshwari H Vala, Madhuriben V Vachhani, Ashvin M Sorani, found that prevalence of anxiety, stress, and depression was 17.20%, 15.60%, and 10.80%, respectively, in medical students [8].

Ilango Saraswathi, Jayakumar Saikarthik, and Raghunath Gunapriya, also found that 35.5%, 33.2% and 24.9% of the undergraduate medical students, including resident interns showed symptoms of depression, anxiety, and stress respectively during COVID-19 outbreak [9]. This negative impact of the pandemic could be attributed to sudden challenges faced by the medical students in terms of academics, uncertainties about future, fear of infection, news about shortage of personal protective equipment, quarantine induced boredom, frustrations, lack of freedom, and fears caused by rumours and misleading news in the media (Bao et al., 2020; Ferrel & Ryan, 2020). Out of 287 participants, 26.13% faced some form of stress (1.74% severe : 5 participants); 26.13% had anxiety (3.83% severe being 11 participants) and 47.04% had depression (4.88% severe being 14 participants). Females were found to be more depressed, anxious and stressed, most probably due emotional & health factors.

Juniors had a higher negative impact than Seniors, which can be due to less clinical knowledge and experience in coping with academic stress. Students residing outside Goa had less adverse impact compared to Goan residents, which can be due to higher relaxation of being with family. Also, the AIQ students are more competitive, and capable of leading an independent life.

Students were most worried about academics; followed by rise in covid cases and Family Health. Majority of students (nearly 14 in 20) used television and online streaming platforms to cope; followed by exercise & family time.

CONCLUSION:

COVID-19 pandemic did impact the psychological status of participants negatively.

ACKNOWLEDGEMENTS:

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FIGURES:

Figure 1: Pie chart showing things which worried participants most

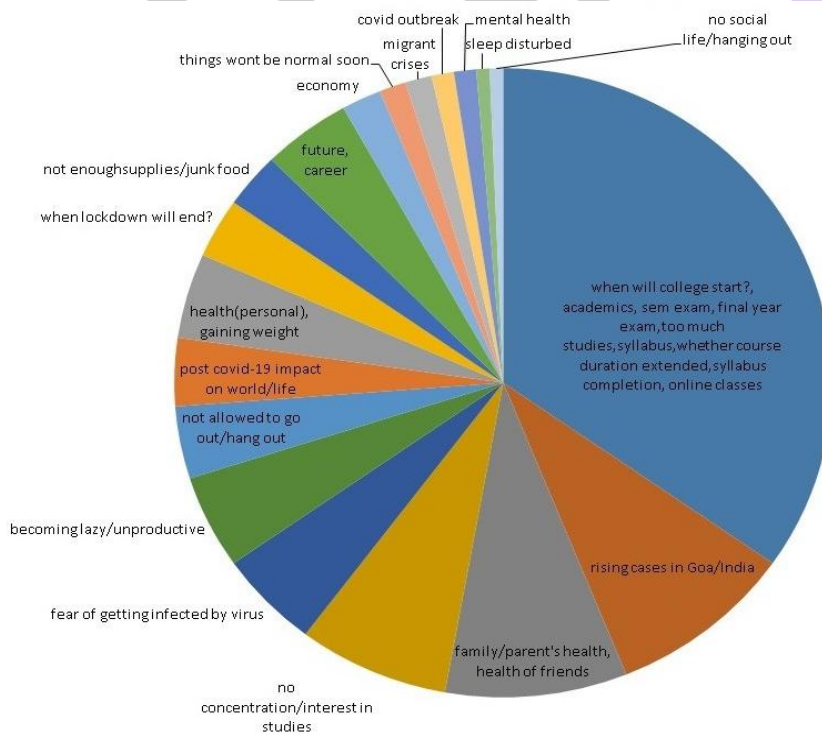


Figure 1: Pie chart showing things which worried participants most

Figure 2 : Pie chart showing coping mechanisms used by participants

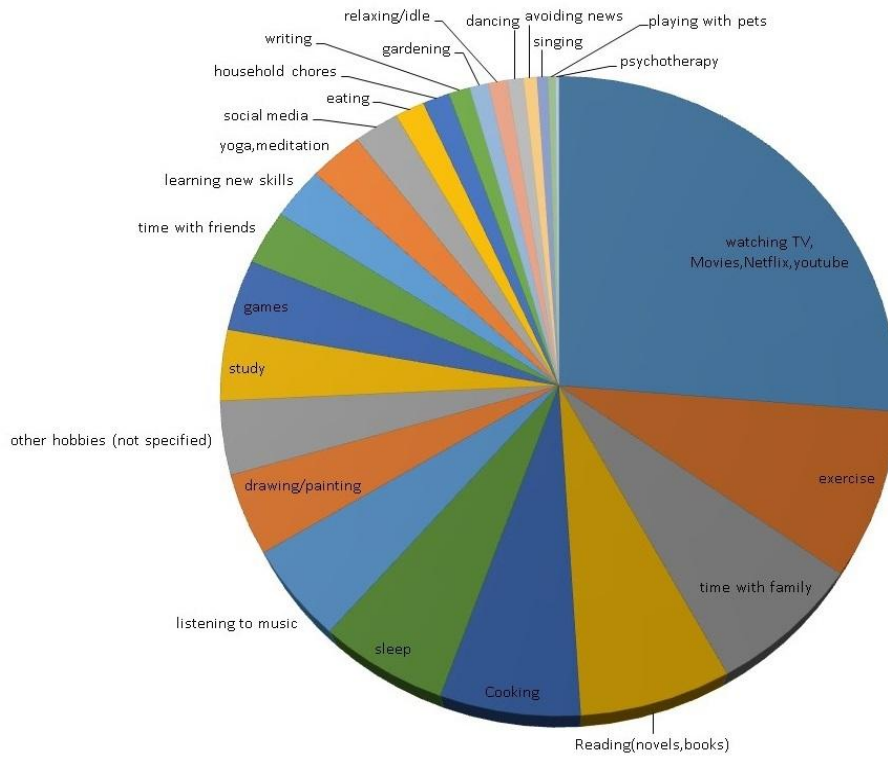


Figure 2: Pie chart showing mechanisms used by participants

