Prevalence of Generalized Anxiety Disorder among Medical Residents in Hamad Medical Corporation in 2020

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Received: November 2021; Accepted: December 2021; Published: January 1, 2022.
Citation: Mohamed Hnish et al. Prevalence of Generalized Anxiety Disorder among Medical Residents in Hamad Medical Corporation in 2020. World Family Medicine. 2022; 20(1): 185-195 DOI: 10.5742/MEWFM.2022.95234

Abstract

Background: The mental health of healthcare professionals is essential because it affects their performance in different ways. This study aims to estimate the prevalence of generalized anxiety disorder among medical residents working in various specialties at Hamad Medical Corporation (HMC) and to determine the most common contributing factors. The study also aims to evaluate the awareness of availability of mental health services for medical residents.

Methods: A cross-sectional study that used an anonymous paper survey consisted of four sections: introductory information section, the 7-item anxiety scale, Generalized Anxiety Disorder-7 (GAD-7), the possible causes of anxiety, and the awareness of availability of mental health services.

All medical residents from all programs throughout all postgraduate year levels in HMC were invited to participate in the study. The sample size of 244 was calculated based on a population size of 666, a precision of 0.05, and a 95% confidence interval.

The data were analyzed by a biostatistician using SPSS for Windows (Version 25.0; IBM Corp., Armonk, NY, USA).

Results: Of the 244 participants, 73 (29.9 %) reported anxiety symptoms with a GAD-7 score of 10 or more; the only variable that had a statistically significant effect on anxiety was residency status, with 37.9% of overseas residents reporting anxiety compared to 21.1% of locals (p = 0.005).

The prevalence of anxiety fluctuated between postgraduate years, with 25.3% in participants of year 1, 35.9% in year 2, 34.1% in year 3, 24.3% in year 4, 23.1% in year 5, 50% (2 participants) in year 6, and 100% (1 participant) in year 7 (p = 0.397). Prevalence of anxiety was higher in non-surgical programs 32.4% than in surgical problems 23.9% (p = 0.192). There were some statistically significant differences in possible causes of anxiety between those with and without anxiety. Career planning was the most common cause among those with anxiety (82.2%) and was the fifth most common cause among those without anxiety (63.7%) (p = 0.003). The workload was the second most common cause of anxiety in participants with anxiety (79.5%) compared to 73.1% in those without anxiety (p = 0.104).

Only 31.5% of participants with anxiety were aware of mental health services provided by HMC to their staff compared to 45.0% of those without anxiety (p = 0.042). However, only 8.7% of those with anxiety and 14.3% of those without anxiety who were aware of the services would utilize them (p = 0.472). Lack of time was the most common cause of not utilizing the services among those with anxiety (61.1%) compared to 26.2% in those without anxiety. Confidentiality issues were indicated by 33.3% of participants with anxiety and 1.5% of those without anxiety.

Conclusions: This study highlights the prevalence of anxiety disorders among medical residents, and it was found to be high but relatively like the prevalence found in other studies internationally and locally. The level of anxiety was significantly higher among overseas residents in comparison to local residents. This study also detected the most common contributing factors, which were found to be career planning followed by workload. There was a significant number of residents who were not aware of the presence of mental health services within the institution; in addition, among those with anxiety who were aware of the mental health services but not utilizing them, there were two common reasons, the lack of time followed by confidentiality issues.

Key words: Generalized anxiety disorder, prevalence, medical residents, residency program, Qatar

Background

The mental health of healthcare professionals is essential because it affects their performance in different ways. Mental health impairment is usually associated with medical errors or decreased performance, and these could eventually negatively impact patients' health [1]. Numerous studies have shown that physicians are exposed to psychological distress regardless of age, gender, or seniority in the profession [1-4]. Only a few factors about physicians' workload or personalities can either attenuate or exaggerate the stress-related mood disorders (anxiety, depression, burnout), and moderate their impact on their personal or professional life [2,3]. A cross-sectional study for assessing the prevalence of anxiety and depressive symptoms and the associated risk factors among Tunisian medical residents concluded that 43.6% of residents had definite anxiety[4]. In Bahrain, a cross-sectional study was conducted in June 2014 to assess the prevalence of depression, anxiety, and stress among primary care physicians. Anxiety was noted in 37.6% of participating physicians [5]. A cross-sectional study was done in the United Arab Emirates in 2018 to assess the prevalence of depression among medical residents and showed depression percentages ranging from 6% to 22%, depending on the specialty [3]. In 2019 a cross Sectional study measuring the prevalence of depression, anxiety, and stress among postgraduate medical residents in Bangladesh, found 11.5% of the residents had depressive disorders [6]. Another cross-sectional study was done in 2019 in Nepal measuring depression, anxiety, and burnout among medical students and found depression in 31% of the residents [7]. In March 2020 a cross-sectional study under the title of ''The Prevalence of depression, anxiety, and stress among medical residents'' was conducted in Iran. According to this study results, 23% of residents had severe to extremely severe depression, and 24.9% had extremely severe anxiety [8]. A recent study conducted by Khoodoruth et al. to assess the mental health outcomes in residents working in the front and second lines of COVID-19 – using DASS-21 – questioned 127 residents in HMC and found that 41.7% of residents reported symptoms of anxiety and that it was more pronounced among junior residents [2].

In addition to measuring and recognizing mental health issues facing medical residents, it is critical to provide trainees with mental health services and to ensure that these services are being utilized appropriately. The most-reported obstacle of not utilizing mental health services by residents is the worry about confidentiality issues. A program at the University of Michigan Health System was designed to overcome many of the barriers preventing residents from utilizing health services. This program, called the House Officer Mental Health Program, began operation in 1997 and responded to the unabated concerns about the wellbeing of residents and the more recent concerns about the possible relationship of residents' difficulties to issues of patient safety [1]. Another important aspect is that residents must be aware of the mental health services their institution or program offers. In 2012 a study conducted in the United States to evaluate awareness and utilization of a new institutional policy to grant residents time off to access personal and family health care found that 89% of respondents were aware of the policy. Of those who were aware, 49.7% used the policy to access health care [9].

Methods

Study Design:
Our study is a cross-sectional study that used an anonymous paper survey consisting of four sections.

The first is an introductory information section; asking about: age, gender (male, female), nationality (Qatari, non-Qatari), marital status (single, married, divorced), chronic illnesses, type of contract (local, overseas), residency program specialty, postgraduate year level.

The second section is the 7-item anxiety scale; Generalized Anxiety Disorder-7 (GAD-7). Each item was rated from 0 (not at all) to 3 (nearly every day). A cutoff of ≥10 has good sensitivity and specificity for anxiety. We used this cutoff to determine the presence of anxiety.

The third section asks about possible causes of anxiety (workload, sleep deprivation, administrative responsibility, lack of support from an allied health professional, lack of support from seniors, family issues, financial issues, limited free time, relocation, examinations, the responsibility to patient care, and career planning).

The fourth section asks about awareness of the availability of mental health services in HMC, its utilization, and causes of not utilizing them (confidentiality, lack of time, long waiting appointments, and others).

Inclusion and Exclusion Criteria:
All medical residents from all programs throughout all postgraduate year levels in HMC were invited to participate in the study.

Inclusion criteria:
All medical residents from all residency programs and all levels who consented to participate in the survey.

Exclusion criteria:
Medical residents who are currently on annual leave or vacations.

Sample Size:
Applying Cochrane's formula for sample size calculation, a minimum sample size of 244 was calculated based on a population size of 666, a precision of 0.05, and a 95% confidence interval.

Statistical Analysis:
Data were presented using descriptive statistics in the form of frequencies and percentages for qualitative variables. The dichotomous variables were expressed as numbers and percentages. Qualitative variables were compared

using the chi-square test. A non-parametric correlation was used to assess the correlation between demographic characteristics among patients with anxiety. A Chi-square test was carried out to compare the prevalence of anxiety and other variables. A P-value of <0.05 was considered statistically significant.

The data were analyzed by a biostatistician using SPSS for Windows (Version 25.0; IBM Corp., Armonk, NY, USA).

Results

Descriptive data:
The sample consisted of 244 participants (Table 1). Of all the respondents, 141 were less than 30 years old, and 101 were 30 years or older. Females were 106 while males were 137. The majority of participants (234) were non-Qatari, while only 9 were Qataris. However, 109 were already residents of Qatar compared to 132 coming from abroad. Most of the participants (130) were single, followed by married (112), while only one participant was divorced. Only 21 participants had a history of chronic illness, while 150 participants had none, and the remaining 73 participants did not answer this question.

Most of the participants (83) were in postgraduate year 1, followed by 64 in year 2, 41 in year 3, 37 in year 4, 13 in year 5, four in year 6, and one in year 7.

We categorized the medical specialties into two main categories: Surgical programs, with 71 participants and non-surgical programs with 173 participants. Surgical programs included 13 participants from obstetrics and gynecology, 12 from anesthesia, nine from general surgery, nine from orthopedics, five from plastic surgery, five from neurosurgery, four from ENT, four from urology, three from oro-maxillofacial surgery, three from ophthalmology, three from cardiothoracic surgery, and one from pediatric surgery. Non-surgical programs included 67 participants from internal medicine, 32 from pediatrics, 19 from family medicine, 17 from emergency medicine, 12 from radiology, nine from psychiatry, seven from community medicine, five from the transitional year, two from dermatology, two from pathology, and one from neurology.

Main results:
Of the 244 participants, 73 (29.9 %) reported anxiety symptoms with a GAD-7 score of 10 or more (Table 2).

The only variable that had a statistically significant effect on anxiety was residency status, with 37.9% of overseas residents reporting anxiety compared to 21.1% of locals (p = 0.005) (Figure 1). Here we report other variables with no statistically significant effect. Regarding age, 27.7% of participants less than 30 years old reported anxiety compared to 32.7% of those 30 years or older (p = 0.400). 34.9% of females and 26.3% of males had anxiety (p = 0.146). 33.3% of Qataris and 29.9 of non-Qataris had anxiety (p = 0.826). The only divorced participant reported anxiety, while 31.1% of married and 26.9% of single participants had anxiety (p = 0.205). The participants with previous medical illnesses had more anxiety (42.9%) than those free of illnesses (24.7%) (p = 0.078). Prevalence of anxiety fluctuated between post-graduate years, with 25.3% in participants of year 1, 35.9% in year 2, 34.1% in year 3, 24.3% in year 4, 23.1% in year 5, 50% (2 participants) in year 6, and 100% (1 participant) in year 7 (p = 0.397).

Prevalence of anxiety was higher in non-surgical programs (32.4%) than in surgical programs (23.9%) (p = 0.192). The only participant from neurology had anxiety, 60% of participants from transitional year had anxiety, followed by 53.8% of obstetrics and gynecology, 50% of dermatology, 41.6% of radiology, 37.5% of pediatrics, 33.3% of psychiatry, general surgery, orthopedics, and oro-maxillofacial surgery, 32.8% of internal medicine, 28.5% of community medicine, 23.5% of emergency medicine, 20% of plastic surgery, 16.6% of anesthesia, and 15.7% of family medicine. The prevalence of anxiety was 0% in the remaining programs.

There were statistically significant differences between participants with anxiety and those without anxiety regarding the difficulty in dealing with problems and their effects on doing the work, taking care of things at home, and getting along with other people. 37.0% of participants reporting anxiety found it very difficult or extremely difficult compared to 4.2% of those without anxiety. Vice versa, 4.1 % of those with anxiety did not find it difficult at all compared to 34.5% of those without anxiety. Comparable percentages of participants found it somewhat difficult; 58.9% of those with anxiety and 61.3% of those without anxiety (p = 0.001) (Table 3).

There were some statistically significant differences in possible causes of anxiety between those with and without anxiety. Career planning was the most common cause among those with anxiety (82.2%) (Figure 2) and was the fifth cause among those without anxiety (63.7%) (p = 0.003). The workload was the second most common cause of anxiety in participants with anxiety (79.5%) compared to 73.1% in those without anxiety (p = 0.104). That was followed by sleep deprivation with 76.6% in participants with anxiety and 71.3% in participants without anxiety (p = 0.611). Limited free time was the fourth cause in participants with anxiety (76.7%) and the most common in those without anxiety (78.4%) (p = 0.400). Examinations caused anxiety in 74.0% of participants with anxiety and 68.5% of those without (p = 0.665). Responsibility for patient care, lack of support from allied health professionals, administrative responsibility, and lack of support from seniors all differed statistically significantly between the two groups, causing anxiety in 64.4%, 54.8%, 53.4%, and 49.3% of participants with anxiety compared to 43.9%, 32.7%, 44.4% and 35.7% of participants without anxiety with p values of 0.007, 0.001, 0.021, and 0.004, respectively. Other factors that could cause anxiety were not common and did not differ statistically significantly, and they were: family issues, relocation, and financial issues; causing anxiety in 37.0%, 34.2%, and 16.4% of those with anxiety and 41.5%, 29.2% and 18.7% in those without anxiety, respectively (Table 4).

Only 31.5% of participants with anxiety were aware of mental health services provided by HMC to their staff compared to 45.0% of those without anxiety (p = 0.042) (Table5). However, only 8.7% of those with anxiety and 14.3% of those without anxiety who were aware of the services would utilize them (p = 0.472) (Table 6).

Causes of not using the services did not statistically significantly differ between the two groups (p = 0.083). Lack of time was the most common among those with anxiety (61.1%) compared to 26.2% in those without anxiety. Confidentiality issues were followed by 33.3% of participants with anxiety and 1.5% of those without anxiety. 32.3% of those without anxiety did not utilize them because they did not need it, followed by 29.2% who attributed their avoidance to the long waiting appointments (Table 7).

Figure 1: Anxiety according to residency

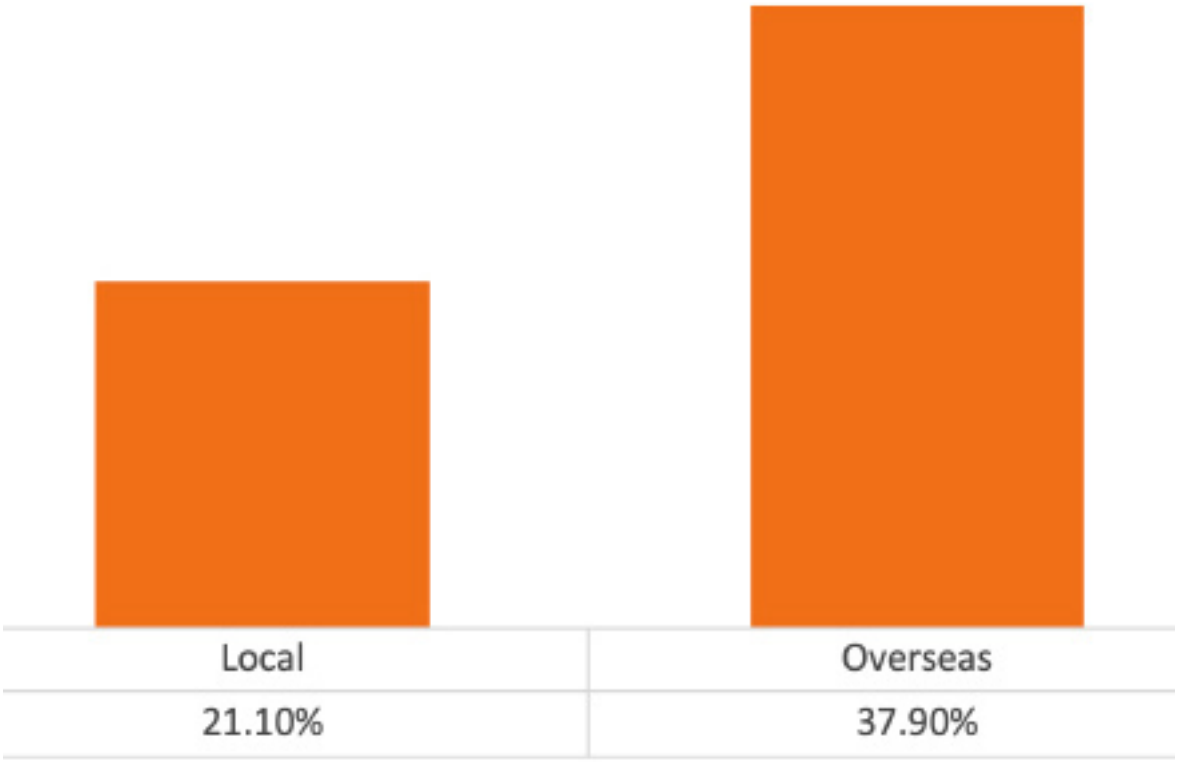

Figure 2: Causes of anxiety among residents with anxiety

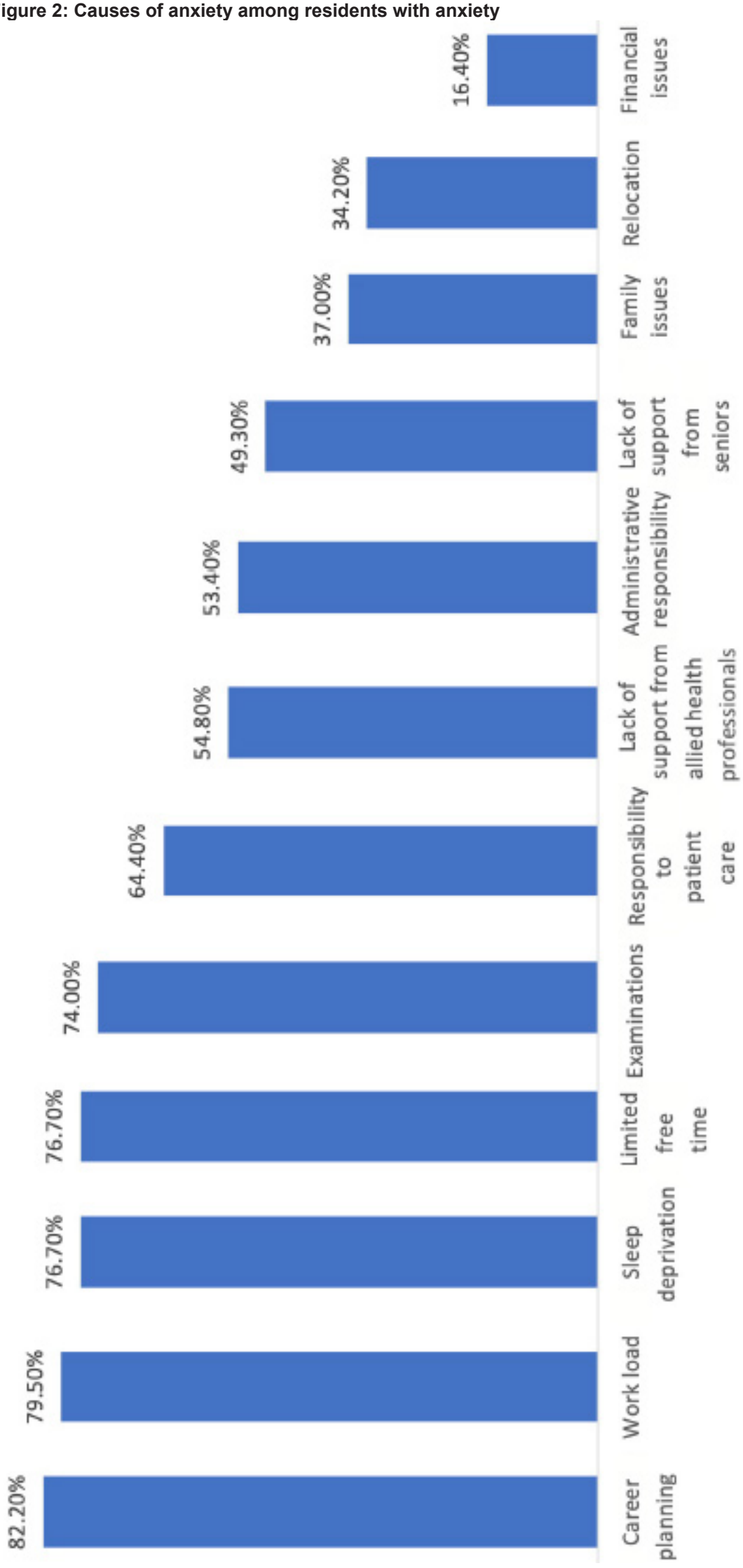

Table 1: Demographics of Sample

Variables		Frequency		Percentage	
Total		**244**		**100%**	
Age					
Less than 30		141		57.8%	
30 or more		101		41.4%	
Gender					
Female		106		43.4%	
Male		137		56.1%	
Nationality					
Non-Qatari		234		95.9%	
Qatari		9		3.7%	
Marital status					
Divorced		1		0.4%	
Married		112		45.9%	
Single		130		53.3%	
Chronic illness					
No		150		61.4%	
Yes		21		8.6%	
Residency					
Local		109		44.7%	
Overseas		132		54.1%	
PGY level					
1		83		34.0%	
2		64		26.2%	
3		41		16.8%	
4		37		15.2%	
5		13		5.3%	
6		4		1.6%	
7		1		0.4%	
Specialty					
Non-Surgical	Internal Medicine	67	173	27.5%	70.9%
	Pediatrics	32		13.1%	
	Family Medicine	19		7.8%	
	Emergency Medicine	17		7.0%	
	Radiology	12		4.9%	
	Psychiatry	9		3.7%	
	Community Medicine	7		2.9%	
	Transitional Year	5		2.0%	
	Dermatology	2		0.8%	
	Pathology	2		0.8%	
	Neurology	1		0.4%	
Surgical	Obstetrics & Gynecology	13	71	5.3%	29.1%
	Anesthesia	12		4.9%	
	General Surgery	9		3.7%	
	Orthopedics	9		3.7%	
	Plastic Surgery	5		2.0%	
	Neurosurgery	5		2.0%	
	ENT	4		1.6%	
	Urology	4		1.6%	
	Oromaxillofacial Surgery	3		1.2%	
	Ophthalmology	3		1.2%	
	Cardiothoracic Surgery	3		1.2%	
	Pediatric Surgery	1		0.4%	

Table 2: Prevalence of Generalized Anxiety Disorder

Variables		Frequency		Percentage		P Value
Total		**73**		**29.9%**		
Age						
Less than 30		39		27.7%		0.400
30 or more		33		32.7%		
Gender						
Female		37		34.9%		0.146
Male		36		26.3%		
Nationality						
Non-Qatari		70		29.9%		0.826
Qatari		3		33.3%		
Marital status						
Divorced		1		100%		0.205
Married		36		32.1%		
Single		35		26.9%		
Chronic illness						
No		37		24.7%		0.078
Yes		9		42.9%		
Residency						
Local		23		21.1%		0.005
Overseas		50		37.9%		
Post-graduate year						
1		21		25.3%		0.397
2		23		35.9%		
3		14		34.1%		
4		9		24.3%		
5		3		23.1%		
6		2		50%		
7		1		100%		
Specialty						
Non-Surgical	Internal Medicine	22	56	32.8%	32.4%	0.192
	Pediatrics	12		37.5%		
	Family Medicine	3		15.7%		
	Emergency Medicine	4		23.5%		
	Radiology	5		41.6%		
	Psychiatry	3		33.3%		
	Community Medicine	2		28.5%		
	Transitional Year	3		60%		
	Dermatology	1		50%		
	Pathology	0		0%		
	Neurology	1		100%		
Surgical	Obstetrics & Gynecology	7	17	53.8%	23.9 %	
	Anesthesia	2		16.6%		
	General Surgery	3		33.3%		
	Orthopedics	3		33.3%		
	Plastic Surgery	1		20%		
	Neurosurgery	0		0%		
	ENT	0		0%		
	Urology	0		0%		
	Oromaxillofacial Surgery	1		33.3%		
	Ophthalmology	0		0%		
	Cardiothoracic surgery	0		0%		
	Pediatric Surgery	0		0%		

Table 3: If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

	Anxiety		No Anxiety		
	Frequency	Percentage	Frequency	Percentage	P value
Very difficult and extremely difficult	27	37.0%	7	4.2%	0.001
Somewhat difficult	43	58.9%	103	61.3%	
Not difficult at all	3	4.1%	58	34.5%	

Table 4: Causes of Anxiety

	Anxiety		No Anxiety		
	Frequency	Percentage	Frequency	Percentage	P value
Career planning	60	82.2%	109	63.7%	0.003
Work load	58	79.5%	125	73.1%	0.104
Sleep deprivation	56	76.7%	122	71.3%	0.611
Limited free time	56	76.7%	134	78.4%	0.400
Examinations	54	74.0%	117	68.4%	0.665
Responsibility to patient care	47	64.4%	75	43.9%	0.007
Lack of support from allied health professionals	40	54.8%	56	32.7%	0.001
Administrative responsibility	39	53.4%	76	44.4%	0.021
Lack of support from seniors	36	49.3%	61	35.7%	0.004
Family issues	27	37.0%	71	41.5%	0.783
Relocation	25	34.2%	50	29.2%	0.646
Financial issues	12	16.4%	32	18.7%	0.932

Table 5: Does HMC provide mental health services to their staff?

	Anxiety		No Anxiety		
	Frequency	Percentage	Frequency	Percentage	P value
Yes	23	31.5%	77	45.0%	0.042
No	20	27.4%	26	15.2%	
I don't know	29	39.7%	66	38.6%	

Table 6: If yes, are you utilizing it when needed?

	Anxiety		No Anxiety		
	Frequency	Percentage	Frequency	Percentage	P value
Yes	2	8.7%	11	14.3%	0.472
No	21	91.3%	65	84.4%	

Table 7: If you are not utilizing it, why not?

	Anxiety		No Anxiety		
	Frequency	Percentage	Frequency	Percentage	P value
Lack of time	13	61.1%	17	26.2%	
Confidentiality	7	33.3%	1	1.5%	
It could be used against me by the department	1	4.8%	1	1.5%	
Long waiting appointments	1	4.8%	19	29.2%	
Stigma	1	4.8%	1	1.5%	0.083
I am not aware of it	0	0%	1	1.5%	
I do not know	0	0%	0	0%	
I do not need it	0	0%	21	32.3%	
I do not think it is useful	0	0%	2	3.1%	
I forget it	0	0%	2	3.1%	
I do not know how to reach	0	0%	1	1.5%	

Discussion

Globally, the mental health status among health care providers has become a large field of research during the last decades. Medical professionals were found to have a higher rate of mental health problems than the general population, with medical residents being the most affected group [6,7]. Work-related mental problems among medical professionals may include burnout, depression, anxiety disorders, sleep disorders, or other psychiatric disorders. Generalized anxiety disorder is characterized by excessive and persistent worrying that is hard to control, causes significant distress or impairment, and occurs on more days than not, for at least six months [10]. GAD has a considerable negative impact on daily life, which can lead to functional impairment, engagement in risky behaviors, and a notable burden to health systems [8]. GAD among health workers is less studied than depression in most Arab countries including Qatar. Therefore, more research is needed to better define the prevalence of anxiety in residents and to identify all possible causes in this population.

Our study explored the prevalence of generalized anxiety disorder and the associated risk factors among medical residents working in Hamad Medical Corporation using a cross-sectional methodology. In addition, we evaluated social-related factors, work-related factors, and career-related factors as potential risk factors increasing anxiety levels. We found a considerable prevalence of anxiety symptoms in medical residents in Qatar. Of the 244 participants, 73 (29.9%) participants met the cutoff of anxiety diagnosis. Thus, residents were more at risk than the general population. The prevalence of generalized anxiety disorders in Qatar reaches 20.4% as shown in a study conducted in 2014 [11].

In other countries, medical residents had a higher anxiety prevalence as well. In 2019, 32.6% of the 1648 Brazilian participants had anxiety [10]. In 2020, 54.4% of the 152 Iranian residents enrolled in the study had anxiety [8]. In Mexico, two studies showed a prevalence of anxiety of 44% in 2017 and 47.1% in 2020 [3,12].

Of the 73 residents with anxiety in our study, 37 (50.7%) were female and 36 (49.3%) were male. The association between gender and the prevalence of anxiety was not statistically significant (p=0.146). In comparison, in 2014, Ghuloum et al. assessed the adult Qatari general population, aged 18-65, using the WHO Composite International Diagnostic Interview (CIDI), and found that females had statistically significant more anxiety (24.9%) than males (15.9%) (p<0.01) [13].

Residents who joined residency overseas had higher anxiety percentages (37.9%) compared to those who were recruited locally (21.1%). This was the only statistically significant socio-demographic characteristic (p=0.005). This finding is understandable in Qatar as HMC recruits residents internationally, and relocating for young postgraduates is a stressful step.

When we evaluated the level of training concerning anxiety, we found that the prevalence of anxiety was higher in the 1st, 2nd, and 3rd years of residency (25.3%, 35.9%, and 34.1% respectively) compared to senior residents (p=0.397). This could be related to the adaptation to a new work environment and lifestyle change, the settlement in a new country, and the academic and work responsibilities that can be overwhelming in the first years of residency.

Similar results were also reported in a study in India, where residents in the 1st year had higher rates of anxiety than seniors (p=0.0828)[14].

Although the difference was not statistically significant, those numbers should be taken into consideration for future action plans to improve mental health among HMC residents.

COVID-19 pandemic was an additional risk factor for anxiety and other mental health disorders in healthcare providers as shown in multiple studies [15]. In Qatar, Khoodoruth et al. studied the psychological health of medical residents fighting COVID-19 pandemic using Depression, Anxiety and Stress Scale – 21 Items (DASS-21) and found high anxiety rates of 41.7%, with junior residents having higher mean DASS-21 scores. This study also showed that the mental health outcomes were significantly dependent of the seniority in residency. The juniors had poorer outcomes [2].

A higher prevalence of anxiety in our sample was observed among residents from non-surgical specialties (32.4%) compared with surgical specialties (23.9%) but these results were not statistically significant. In India, Dave et al, found similar results with anxiety being more prevalent among non-surgical residents [14]. On the other hand, in Tunisia, anxiety was more prevalent among surgical residents; probably due to different work environments and stressors (p<0.05) [12].

To better understand and attempt radical changes in the future, we tried to identify the causes and determinants of anxiety in our sample. The most common and statistically significant reported causes were career planning (82.2%), responsibility for patient care (64.4%), and lack of support from allied health professionals (54.8%) and seniors (49.3%).

Most of the studies in the literature about mental health in medical residents did not aim to identify the causes in the residents' perspective but instead listed associations between mental health problems and participants' characteristics. Afana et al, conducted a study in Qatar to identify sources of stress and burnout among HMC residents. Those stressors were classified into work-related issues, personal care, and achievement, and social issues. The most reported sources of stress were the important workload and relationships with colleagues and seniors [16].

In addition to measuring the mental health challenges that face medical residents, we need to explore the availability of mental health services for trainees and their effectiveness in reducing the anxiety level. It is essential to implement policies allowing residents to utilize these mental health services as recently, the concept of "physician wellness" has presented a considerable step in the medical culture and the Accreditation Council for Graduate Medical Education now requires that all postgraduate medical training programs make assistance services available to residents.

Hamad Medical Corporation provides all its staff including medical residents with designated mental health services through the staff medical center (SMC).

In our study, we initially asked the residents about their awareness whether mental services are provided by the institution or not and 95 residents (38.9%) answered that they are not aware of the presence of such services, in addition, 46 residents (18.9%) said that these services are not provided.

By the given number, it is noticeable that more announcements must be done by both the institution and the residency programs officials to ensure proper orientation to their residents that mental health services are available and to provide them with the tools to reach them when needed.

Out of the 100 residents (41%) who confirmed their awareness of the availability of mental health services, 86 residents confirmed that they are not utilizing these services and from the given reasons in the survey, the most common reasons were lack of time (40.5%) followed by confidentiality issues (27.4%).

These observations need to be addressed by the residency programs officials that they must ensure to provide their residents with the appropriate time to manage their mental health wellbeing, in addition, the confidentiality issue is a complex problem that must be solved on an institutional level as in the Oregon Health & Science University, USA, where a Wellness Time-Off Policy was implemented to overcome the lack of time issue for the access not only to mental health services but even to preventive healthcare [9].

Conclusion

This study highlights the prevalence of anxiety disorders among medical residents, and it was found to be high but relatively like the prevalence found in other studies internationally and locally. The level of anxiety was significantly higher among overseas residents in comparison to local residents. This study also detected the most common contributing factors which were found to be career planning followed by workload. There was a significant number of residents who are not aware of the presence of mental health services within the institution, in addition, among those with anxiety who were aware of the mental health services but not utilizing them, there were two common reasons, the lack of time followed by confidentiality issues.

List of abbreviations:

GAD: Generalized anxiety disorder
HMC: Hamad Medical Corporation
DAS: Depression, anxiety, and stress
SMC: Staff medical center

Acknowledgment:
We would like to express our sincere gratitude towards Dr. Muna Taher, Family medicine residency program director at HMC for her continuous supervision and support, and we would like to thank Dr. Prem Chandra, Academic Research Scientist at HMC, for his support and assistance in data analysis and interpretation.

Ethical approval
The study protocol underwent review by the Institutional Review Board (IRB) at Hamad Medical Corporation (HMC). After approval, it underwent Medical Research Council (MRC) review and was approved (MRC-01-20-068).

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