

Anxiety and depression among gastroenterologists: an online survey in Bangladesh

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Abstract

Introduction: Anxiety and depression negatively affect physicians' performance, leading to them make errors in service providing. Reports regarding the prevalence of anxiety and depression among specialist physicians are limited.

Aim: To assess the prevalence of anxiety and depression among gastroenterologists in Bangladesh.

Material and methods: This cross-sectional study was conducted among gastroenterologists in Bangladesh. Survey questionnaires, including general information and the Hospital Anxiety and Depression Scale (HAD), were sent to the gastroenterologists' email addresses. Responses were collected and analysed.

Results: Out of 166 gastroenterologists, 63 (37.9%, mean age: 49.77 ±8.0 years, 96.8% male, mean service length: 20.2 ±8.0 years, mean working length as specialists 13.2 ±7.2 years) responded. In this series, symptom scores of 16 (25.4%) and 13 (20.7%) respondents were consistent with anxiety and depression, respectively. Nine (14.2%) respondents had symptoms of both anxiety and depression. Anxiety was significantly more prevalent among gastroenterologists of the 41–50-years age group ($p = 0.007$), and those who were working as specialists less than or equal to 5 years ($p = 0.014$). Depression was also more common among gastroenterologists in the 41–50-years age group 7 (24.1%), doing government service 10 (19.6%), service length ≤ 15 years 5 (29.4%), and working as specialist less than or equal to 10 years 7 (31.8%), but the difference was not significant.

Conclusions: Anxiety and depression are more prevalent among gastroenterologists than in the general population. Further studies should be done to determine the risk factors behind anxiety and depression among gastroenterologists so that adequate preventive measures can be taken.

Introduction

According to the World Health Organization (WHO) statement, depression will be the leading cause of disease burden in 2030 [1]. Another WHO statement showed that 3.6% and 4.4% of the world population suffered from depression and anxiety in 2015, respectively, with female predominance [2]. According to the National Mental Survey (April–June) 2019 of Bangladesh, the prevalence of anxiety and depression in the adult population was 4.5% and 6.7%, respectively [3]. Physicians are more likely to suffer from anxiety and depression than the general population [4]. Previous studies conducted in different parts of the world reported varying results regarding the prevalence of anxiety and depression among

physicians, ranging from 11% to 41% and from 11% to 60%, respectively, depending on their type of service and practice [5–11]. A recent report in Bangladesh showed that 11% and 11.5% of postgraduate residents suffered from anxiety and depression [12]. Another study showed that the prevalence of depression among Bangladeshi Medical Students was about 39% [13].

Stress and anxiety negatively affect physicians' performance [14, 15]. It was seen that depressed residents more frequently make medication errors than non-depressed residents [16, 17]. Moreover, there is a significant association between professional burnout and anxiety and depression [18].

As a part of the community of medical professionals, gastroenterologists are also at risk of suffering from men-

tal health problems. Gastroenterologists perform various procedures in addition to giving medical consultations to patients. Errors in medication and intervention constitute a significant source of patient harm. Reports regarding the prevalence of anxiety and depression among specialist physicians are limited. So, it is necessary to perform additional studies to see the extent of anxiety and depression among physicians of different sub-specialties.

Aim

This study was carried out to see the prevalence of anxiety and depression among gastroenterologists in Bangladesh.

Material and methods

This cross-sectional study was conducted among the gastroenterologist of Bangladesh. The email IDs of all gastroenterologists were collected from the membership registry of the Bangladesh Gastroenterology Society. An online survey questionnaire with a forwarding letter including the aim of the survey was sent to them at the weekend of the second and last week of May 2020. The anxiety and depression of gastroenterologists were assessed by the Hospital Anxiety and Depression Scale (HAD), consisting of 7 anxiety and 7 depression items, with a maximum score of 21 for each [19]. A score of 11 or more on either scale was regarded as indicative of significant or overt anxiety or depression, whereas a score of 8–10 on either scale was regarded as borderline anxiety or depression. Responses to the survey were taken as their consent. Responses found within 4 weeks of the first message were collected and then analysed.

Statistical analysis

Statistical analysis was done using Statistical Package for Social Science (SPSS version 20). Means and percentages were calculated for continuous data, and the χ^2 test was used to see the relationship between categorical data. *P*-value < 0.05 was taken as significant. The study was approved by the Ethical Review Committee of Rajshahi Medical College, Bangladesh (Ref. RMC/ERC/2020/243/228).

Results

Questionnaires were sent to 166 gastroenterologists. Four emails could not be delivered. In total, 63 (37.95%, mean age: 49.77 ±8.0 years, 96.8% male) gastroenterologists responded. Table I shows the baseline characteristics of the participant gastroenterologists. Among them, 51 (81.0%) were in government service. In addition to service, 62 (98.4%) gastroenterologists were

involved in private chamber practice. The respondents' service length varied from 5 years to 43 years (mean: 20.29 ±8.09), and their working length as a gastroenterologist varied from 1 to 38 years (mean: 13.28 ±7.278).

In this series, symptom scores of 47 (74.60%), 13 (20.6%), and 3 (4.8%) respondents were consistent with normal, borderline, and overt anxiety, respectively (Table II), while symptom scores of 50 (9.4%), 11 (17.5%), and 2 (3.2%) respondents were consistent with normal, borderline and overt depression, respectively (Table III). Among them, 9 (14.28%) respondents had symptom scores consistent with both anxiety and depression (including borderline and overt cases).

The prevalence of anxiety (including borderline and overt) was significantly more prevalent among gastroenterologists of the 41–50-years age group (*p* = 0.007) and those who were working as gastroenterologists for less than or equal to 5 years (*p* = 0.014). The preva-

Table I. Demographic characteristics of the gastroenterologists (*n* = 63)

Participant characteristics	Number (N)	Percentage (%)
Total respondents	63	
Mean age-year (range)	49.77 (36–67)	
Age distribution [years]:		
≤ 40	6	9.52
41–50	29	46.03
≥ 51 and	28	44.44
Sex:		
Male	61	96.80
Female	02	03.20
Current employment:		
Government service	51	81.00
Private service	10	15.90
Retired from government service	02	03.20
Private practice	62	98.40
Service length [years]:		
≤ 10	6	9.52
11–15	11	17.46
16–20	19	30.16
> 20	27	42.85
Length of service as specialist (Gastroenterologist) [years]:		
≤ 10	8	12.70
11–15	14	22.22
16–20	29	46.03
> 20	12	19.05

Table II. Association between demographic characteristics and anxiety among gastroenterologists

Participant characteristics	Number (N)	Normal	Borderline anxiety	Overt anxiety	P-value
Gastroenterologists	63	47 (74.6%)	13 (20.6%)	3 (4.8%)	
Age [years]:					
≤ 40	6	3 (50.00%)	1 (16.66%)	2 (33.33%)	
41–50	29	20 (68.96%)	8 (27.58%)	1 (3.44%)	0.007
> 50	28	24 (85.71%)	4 (14.28%)	0	
Current employment:					
Government	51	37 (72.55%)	11 (21.57%)	3 (5.88)	
Private	10	9 (90)	1 (10%)	0	0.623
Retired	2	1 (50.00%)	1 (50.00%)	0	
Service length [years]:					
≤ 10	6	4 (66.66%)	1 (16.66%)	1 (16.66%)	
11–15	11	7 (63.63%)	3 (27.27%)	1 (9.09%)	0.014
16–20	19	12 (63.15%)	6 (31.58%)	1 (5.26%)	
> 20	27	24 (88.88%)	3 (11.11%)	0	
Length of practice in gastroenterology [years]:					
≤ 5	8	2 (25.00%)	4 (50.00%)	2 (25.00%)	
6–10	14	11 (78.57%)	2 (14.28%)	1 (7.14%)	0.287
11–20	29	24 (82.76%)	5 (17.24%)	0	
> 20	12	10 (83.33%)	2 (16.67%)	0	

Table III. Association between demographic characteristics and depression among gastroenterologists

Participant characteristics	Number	Normal	Borderline depression	Overt depression	P-value
Gastroenterologist	63	50 (79.4%)	11 (17.5%)	2 (3.2%)	
Age [years]:					
≤ 40	6	4 (66.66%)	1 (16.66%)	1 (16.66%)	
41–50	29	22 (75.86%)	6 (20.69%)	1 (3.44%)	0.289
> 50	28	24 (85.71%)	4 (14.28%)	0	
Employment:					
Government	51	41 (80.39%)	8 (15.68%)	2 (3.92%)	
Private	10	7 (70)	3 (30%)	0	0.729
Retired	2	2 (100.00%)	0	0	
Service length [years]:					
≤ 10	6	5 (83.33%)	0	1 (16.66%)	
11–15	11	7 (63.63%)	3 (27.27%)	1 (9.09%)	0.095
16–20	19	17 (89.47%)	2 (10.52%)	0	
> 20	27	21 (77.78%)	6 (22.22%)	0	
Length of practice in gastroenterology [years]:					
≤ 5	8	4 (50.00%)	3 (37.50%)	1 (12.50%)	
6–10	14	11 (78.57%)	2 (14.28%)	1 (7.14%)	0.251
11–20	29	24 (82.76%)	5 (17.24%)	0	
> 20	12	11 (91.66%)	1 (8.33%)	0	

lence of anxiety was higher among gastroenterologists in government service – 14 (27.45%), and it was lowest among those with service length more than 20 years – 3 (11.11%), but the difference was not significant. Depression was also more common among gastroenterologists of the 41-50-years age group – 7 (24.13%), doing government service – 10 (19.60%), with service length \leq 15 years – 5 (29.41%), and working as specialist less than or equal to 10 years – 7 (31.82%), but the difference was not significant.

Discussion

In this study, the response rate was about 38%, which was higher than the report from India [10] but lower than the report from Pakistan [11]. This lower response rate may be due to their excess workload, lack of personal time for relaxation, and their unwillingness to be screened and stigmatized. About one-fourth of gastroenterologists had symptom scores consistent with some sorts of anxiety (borderline and overt). A similar prevalence of anxiety was seen among graduate and postgraduate doctors in China [7], but our prevalence was much lower than the report from Pakistan [11]. The prevalence of anxiety among postgraduate residents in Bangladesh was also much lower than in the current study. In Bangladesh, the number of gastroenterologists is not adequate for the total population. In addition to medical consultation, they have to perform diagnostic and therapeutic procedures with limited logistics support. This work environment, e.g. excess workload, a high level of responsibility, and a fear of making mistakes, may influence them to have anxiety and stress. Reports from China, Poland, and Turkey also showed a relationship between anxiety and a hostile working environment among physicians [7, 20, 21]. In the current study, the prevalence of anxiety decreased with an increase in age. Also, anxiety was more prevalent among gastroenterologists in government service and those with shorter working experience. In contrast, it was less prevalent among those having a service length of more than 20 years. A report from Saudi Arabia also showed a higher prevalence of anxiety among young physicians [22]. One American report showed that junior gastroenterologists, mostly related to endoscopy practice, had more stress and anxiety than seniors [23]. Patient satisfaction, expectation from controlling authority, acquisition of newer techniques, workload, and uncertainty regarding career build-up produce stress and anxiety among young gastroenterologists. Occupational stress is a recognized cause of anxiety [24]. It is usual that after 20 years of service, physicians are already established and usually do not have

to think of career build-up. Another factor responsible for lower baseline stress among older physicians is the individual adaptations to the stressful workplace, which they learn during their years of training and practice. In contrast, reports from Malaysia and Pakistan showed that the prevalence of anxiety does not differ with service length [7, 11].

In this study, about one-fifth of gastroenterologists had some sort of depression (borderline and overt), which was lower than some reports in which surveys were done among postgraduate residents, general physicians, and a group of graduate and postgraduate doctors [6, 7, 11]. It was higher than one report from Bangladesh [12] and higher than previous reports from the USA, Canada, Britain, Norway, Japan, and Benin, where the prevalence of depression among physicians ranged from 8.8% to 15.5% [25–30]. The small sample size, single specialty of physicians, and the difference in mental state assessment instrument may cause this difference. In our series, depression was more prevalent among the younger group of gastroenterologists. An increased prevalence of mental disorders, including depression, was also seen among young doctors and medical students in Australia [31]. Conversely, age was not found to influence causation of depression among Malaysian emergency medical doctors and general practitioners in the UK [8, 30]. High workload, less professional experience, inadequate professional training, and uncertainty of future career building might influence their mental health. In the current study, depression was more prevalent among gastroenterologists working in government service. Also, a small number of gastroenterologists in our series were in private service, which may be an issue. Reports from China, Poland, and Turkey showed that a hostile working environment increases the chance of depression among doctors [7, 19, 20]. Gastroenterologists with service length \leq 15 years suffered more from depression, consistent with a report from Pakistan [11]. The doctor-patient relation in Bangladesh is not good. The dissatisfaction of patients and authority also play a role in the disturbed mental health of physicians. This is consistent with the American report [23].

The current study had some limitations: (1) the sample size was relatively small; (2) information on working hours per week, job satisfaction, violence at the workplace, family life, income, hobbies, time for relaxation and recreation, etc. were not included; and (3) there was no control group.

Conclusions

Anxiety and depression among gastroenterologists are more prevalent than in the general population. Gas-

troenterologists in younger age groups, working in the government sector, and with less experience working as specialists are more vulnerable. Disturbed mental health negatively affects health care delivery. Further studies should be done to determine the risk factors behind anxiety and depression among gastroenterologists so that adequate measures can be taken.

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Conflict of interest

The authors declare no conflict of interest.

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