Phobia among residents in board training programs in Abha, Kingdom of Saudi Arabia, 2019

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Abstract

Background: Phobia is an extreme form of anxiety or fear which is triggered by a given situation or object or even danger associated with a situation or object for more than 6 months. There are three main forms of phobia: social phobia (social anxiety disorder), specific phobia, or agoraphobia. Agoraphobia is a form of anxiety disorder where one fears and avoids situations or places that might cause them to panic. The main purpose of this study is to investigate phobia among residents in broad training programs in Abha city and compare phobia between residents in broad training programs and general practitioners in Abha city. Methods: It is a cross-sectional study. The study was conducted in Abha city of Saudi Arabia from December 2019 to March 2020. It included a representative sample of medical doctors under broad training programs and general practitioners (none trained) in all the health-care centers. A link for the survey questionnaires was created and shared with the respondents. The questionnaire included sociodemographics of the participants, the Kutcher Generalized Social Anxiety Disorder Scale, and the Psychometric Properties and Clinical Utility of the Specific Phobia Questionnaire in an Anxiety Disorders Sample for specific phobia. Results: The study included 300 physicians. Majority of them (81%) were in the age group between 25 and 30 years. Males represent 54% of them. There was no statistically significant difference between resident physicians and general practitioners regarding the avoidance of different social situations. Conclusion: Overall, the residents in board training programs in Abha city expressed lower levels of discomfort, anxiety, distress, avoidance, fear, and life interference of some social and specific situations compared to general practitioners.

Keywords: Anxiety, distress, doctors, practitioners

Introduction

Phobia is an extreme form of anxiety or fear which is triggered by a given situation or object or even danger associated with a situation or object for more than 6 months. There are three main forms of phobia: social phobia (social anxiety disorder), specific phobia, or agoraphobia. Agoraphobia is a form of anxiety disorder where one fears and avoids situations or places that might cause them to panic.[1] In the medical field, all the three forms of phobia are prevalent, which have an impact on the effectiveness of health-care practitioners. Through residency training, across the globe, clinicians and educationalists involved in residency training concentrate on the improvement of...
education by modernizations which include implementations of competency-based learning, assessment, and advancement of the quality of education for the residents through accreditation standards.[8] The initiatives of various governments to improve the quality of health care have majorly focused on the quality and safety of health-care services. The available research reports emphasize the effectiveness of quality improvement initiatives in the betterment of patient outcomes.[9] Nevertheless, it is yet to be established the extent to which residency training impacts on patient outcomes. Most of the researches in medical education evaluate the effects of changes in residency training on educational outcomes and not patient outcomes.[10] The aim of the study is to investigate phobia among residents in broad training programs in Abha city. The study investigates this phenomenon among the trained and nontrained ones. The following are the research objectives for the current study:

1. To investigate phobia among residents in broad training programs in Abha city
2. To compare phobia between residents in broad training programs and general practitioners in Abha city.

Methodology

This cross-sectional study was conducted in Abha city of the Kingdom of Saudi Arabia (KSA). Abha is the capital city of Aseer region which is situated in the southwest part of the country. The estimated population of the region is around 2,212 million by 2017.[8] A sample size of 222 was calculated using a sample size calculator.[4] The study population comprises medical doctors under broad training programs in all the health-care centers in Abha city, KSA. The inclusion criteria include residents in all programs and general practitioners in Abha city. It was also looked at social and specific phobia. The exclusion criteria are residents in all programs and general practitioners in Khamis Mushait and other areas in Saudi Arabia as well as residents with other psychiatric problems. The survey questionnaire included demographic characteristics (age, gender, job title, and specialty for residents). In addition, the Kutcher Generalized Social Anxiety Disorder Scale for social phobia was used.[7]

Finally, the Psychometric Properties and Clinical Utility of the Specific Phobia Questionnaire in an Anxiety Disorders Sample for specific phobia was applied.[9] The Statistical Package for the Social Sciences (SPSS version 20) IBM Corp. Released 2011. IBM SPSS Statistics for Windows, Version 20.0. Armonk, NY: IBM Corp. was used for analysis. Descriptive and inferential statistics were obtained. Chi-square test was used to measure significant differences among variables. $P < 0.05$ was considered as a significant value. Informed consent from respondents and ethical approval were obtained from the higher authorities. Ethical approval was obtained from (KKU) King Khalid University Research Ethics Committee.

Results

The study included 300 physicians. Table 1 summarizes their demographic characteristics. Majority of them (81%) were in the age group of between 25 and 30 years, whereas 3.7% were over 35 years. Males represent 54% of them. Almost two-thirds of them (66.3%) were residents, whereas 33.7 were general practitioners. Regarding specialty of residents, the most commonly reported were family medicine (29.2%), internal medicine (23.6%), general surgery (14.1%), pediatrics (13.1%), and obstetrics/gynecology (9.5%). Almost more than half (53.3%) of resident physician and (43.6%) general practitioners fell discomforted, anxious, and distress in using a telephone to ask for information or to speak to someone they do not know very well. Moreover, discomfort, anxiety, and distress were severe among 4.5% of residents compared to 2% of general practitioners, $P = 0.027$. There was no statistically significant difference between them regarding other study items [Table 2].

Table 1: Demographic characteristics of the participants, Abha (n=300)

| Title | Frequency (%) |
|-------|---------------|
| Specialty of residents (n=199) | |
| Family medicine | 58 (29.2) |
| Internal medicine | 47 (23.6) |
| General surgery | 28 (14.1) |
| Pediatrics | 26 (13.1) |
| Obstetrics/gynecology | 19 (9.5) |
| Psychiatry | 5 (2.5) |
| Ophthalmology | 4 (2.0) |
| Orthopedics | 4 (2.0) |
| ENT | 4 (2.0) |
| Dermatology | 4 (2.0) |
| Age (years) | Frequency (%) |
| 25-30 | 243 (81.0) |
| 31-35 | 46 (15.3) |
| >35 | 11 (3.7) |
| Gender | |
| Male | 162 (54.0) |
| Female | 138 (46.0) |
| Title | Frequency (%) |
| Resident | 199 (66.3) |
| General practitioner | 101 (33.7) |
### Table 2: Comparison between resident physicians and general practitioners regarding discomfort, anxiety, and distress of different social situations

| Social Situation                                                                 | Residents |              |                  |                  |              |                  |                  |              |                  |                  |                 | Chi-square test |
|---------------------------------------------------------------------------------|-----------|--------------|------------------|------------------|--------------|------------------|------------------|--------------|------------------|------------------|-----------------|-----------------|
| Attending a party or a social gathering with people you don’t know very well     | 69 (34.7) | 79 (39.7)    | 46 (23.1)        | 5 (2.5)          | 35 (34.7)    | 32 (31.7)        | 28 (27.7)        | 6 (5.9)      | 0.274            |                  |                 |                 |
| Speaking up, answering a question in a class discussion                         | 52 (26.1) | 87 (43.7)    | 52 (26.1)        | 8 (4.0)          | 33 (32.7)    | 36 (35.6)        | 26 (25.7)        | 6 (5.9)      | 0.456            |                  |                 |                 |
| Presenting in front of small group                                              | 74 (37.2) | 86 (43.2)    | 32 (16.1)        | 7 (3.5)          | 43 (42.6)    | 34 (33.7)        | 20 (19.8)        | 4 (4.0)      | 0.458            |                  |                 |                 |
| Attending overnight activities such as trips                                     | 113 (56.8)| 55 (27.6)    | 22 (11.1)        | 9 (4.5)          | 52 (51.5)    | 28 (27.7)        | 17 (16.8)        | 4 (4.0)      | 0.550            |                  |                 |                 |
| Use a telephone to ask for information or to speak to someone you don’t know very well | 93 (46.7)| 68 (34.2)    | 29 (14.6)        | 9 (4.5)          | 57 (56.4)    | 20 (19.8)        | 22 (21.8)        | 2 (2.0)      | 0.027            |                  |                 |                 |
| Entering a classroom or a social group once the activity is already underway     | 68 (34.2)| 89 (44.7)    | 32 (16.1)        | 10 (5.0)         | 35 (34.7)    | 37 (36.6)        | 22 (21.8)        | 7 (6.9)      | 0.442            |                  |                 |                 |
| Initiating conversation with strangers                                          | 73 (36.7)| 80 (40.2)    | 35 (17.6)        | 11 (5.5)         | 35 (34.7)    | 41 (40.6)        | 22 (21.8)        | 3 (3.0)      | 0.590            |                  |                 |                 |
| Speaking with authority figures (teacher, counselor, principal, physician)      | 51 (25.6)| 111 (55.8)   | 29 (14.6)        | 8 (4.0)          | 32 (31.7)    | 45 (45.5)        | 19 (18.8)        | 4 (4.0)      | 0.394            |                  |                 |                 |
| Eating in public                                                                | 153 (76.9)| 31 (15.6)    | 8 (4.0)          | 7 (3.5)          | 84 (83.2)    | 11 (10.9)        | 4 (4.0)          | 2 (2.0)      | 0.027            |                  |                 |                 |
| Going to a party alone                                                          | 79 (39.7)| 66 (33.2)    | 37 (18.6)        | 17 (8.5)         | 37 (36.6)    | 31 (30.7)        | 24 (23.8)        | 9 (8.9)      | 0.758            |                  |                 |                 |
| Writing your name in public                                                    | 163 (81.9)| 19 (9.5)     | 9 (4.5)          | 8 (4.0)          | 86 (85.1)    | 11 (10.9)        | 1 (1.0)          | 3 (3.0)      | 0.045            |                  |                 |                 |

*Chi-square test

### Table 3: Comparison between resident physicians and general practitioners regarding fear scale of different situations of specific phobia questionnaire

| Situation                                                                 | Residents |              |                  |                  |              |                  |                  |              |                  |                  |        | Chi-square test |
|---------------------------------------------------------------------------|-----------|--------------|------------------|------------------|--------------|------------------|------------------|--------------|------------------|------------------|--------|-----------------|
| High open place, elevator, looking out window on the top floor of tall building | 111 (55.8)| 43 (21.6)    | 25 (12.6)        | 6 (3.0)          | 14 (7.0)     | 48 (47.5)        | 25 (24.8)        | 9 (8.9)      | 8 (7.9)          | 11 (10.9)        | 0.159  |
| Driving on highways or bad weather                                        | 77 (38.7)| 45 (22.6)    | 38 (19.1)        | 21 (10.6)        | 18 (9.0)     | 38 (37.6)        | 20 (19.8)        | 24 (23.8)    | 11 (10.9)        | 8 (7.9)          | 0.898  |
| Heavy rain, worms, thunder, lighting                                       | 78 (39.2)| 55 (27.6)    | 34 (17.1)        | 17 (8.5)         | 15 (7.5)     | 29 (28.7)        | 28 (27.7)        | 22 (21.8)    | 15 (14.9)        | 7 (6.9)          | 0.250  |
| Watching someone get injection or stitches or receiving injection          | 144 (72.4)| 29 (14.6)    | 12 (6.0)         | 11 (5.5)         | 3 (1.5)      | 69 (68.3)        | 10 (9.9)         | 12 (11.9)    | 5 (5.0)          | 5 (5.0)          | 0.127  |
| Giving blood or watching someone gives blood                               | 151 (75.9)| 21 (10.6)    | 12 (6.0)         | 8 (4.0)          | 7 (3.5)      | 71 (70.3)        | 12 (11.9)        | 12 (11.9)    | 3 (3.0)          | 3 (3.0)          | 0.475  |
| Getting minor surgery, watching surgery on TV or mobile                    | 136 (68.3)| 36 (18.1)    | 13 (6.5)         | 10 (5.0)         | 4 (2.0)      | 59 (58.4)        | 15 (14.9)        | 15 (14.9)    | 4 (4.0)          | 8 (7.9)          | 0.015  |
| Visiting hospital or dentists                                              | 112 (56.3)| 30 (15.1)    | 38 (19.1)        | 17 (8.5)         | 2 (1.0)      | 56 (55.4)        | 15 (14.9)        | 17 (16.8)    | 10 (9.9)         | 3 (3.0)          | 0.756  |
| Swimming                                                                  | 120 (60.3)| 37 (18.6)    | 21 (10.6)        | 14 (7.0)         | 7 (3.5)      | 72 (71.3)        | 9 (8.9)          | 7 (6.9)      | 8 (7.9)          | 5 (5.0)          | 0.152  |
| Flying on an airplane                                                      | 140 (70.4)| 22 (11.1)    | 19 (9.5)         | 6 (3.0)          | 12 (6.0)     | 68 (67.3)        | 11 (10.9)        | 9 (8.9)      | 8 (7.9)          | 5 (5.0)          | 0.446  |
| Snakes or spiders                                                         | 31 (15.6)| 28 (14.1)    | 38 (19.1)        | 23 (11.6)        | 79 (39.7)    | 24 (23.8)        | 14 (13.9)        | 18 (17.8)    | 14 (13.9)        | 31 (30.7)        | 0.370  |
| Rodents (mice, rats)                                                       | 40 (20.1)| 37 (18.6)    | 41 (20.6)        | 19 (9.5)         | 62 (31.2)    | 30 (29.7)        | 16 (15.8)        | 15 (14.9)    | 13 (12.9)        | 27 (26.7)        | 0.262  |
| Dark or enclosed place                                                     | 129 (64.8)| 30 (15.1)    | 16 (8.0)         | 13 (6.5)         | 11 (5.5)     | 64 (63.4)        | 12 (11.9)        | 12 (11.9)    | 6 (5.9)          | 7 (6.9)          | 0.766  |

*Chi-square test
Table 4: Comparison between resident physicians and general practitioners regarding life interference scale of different situations of specific phobia questionnaire

| Situation                                      | Residents | General Practitioners |
|------------------------------------------------|-----------|-----------------------|
| Getting minor surgery, watching surgery on TV or mobile | 150 (75.4) | 52 (26.1) |
| Visiting hospital or dentists                   | 149 (74.9) | 61 (60.4) |
| Swimming                                       | 149 (74.9) | 61 (60.4) |
| Flying on an airplane                           | 149 (74.9) | 61 (60.4) |
| Moist or dirty place                            | 144 (72.4) | 60 (58.3) |
| High open place, elevator, looking out window on the top floor of tall building | 115 (57.1) | 53 (51.5) |
| Dark or enclosed place                          | 114 (56.8) | 52 (50.5) |
| Snakes or spiders                               | 114 (56.8) | 52 (50.5) |
| Driving on highways or bad weather             | 114 (56.8) | 52 (50.5) |
| Visiting hospital or dentists                   | 114 (56.8) | 52 (50.5) |
| Life on a watercraft                            | 114 (56.8) | 52 (50.5) |
| Getting minor surgery, watching surgery on TV or mobile | 150 (75.4) | 52 (26.1) |
| Visiting hospital or dentists                   | 149 (74.9) | 61 (60.4) |
| Swimming                                       | 149 (74.9) | 61 (60.4) |
| Flying on an airplane                           | 149 (74.9) | 61 (60.4) |
| Moist or dirty place                            | 144 (72.4) | 60 (58.3) |
| High open place, elevator, looking out window on the top floor of tall building | 115 (57.1) | 53 (51.5) |
| Dark or enclosed place                          | 114 (56.8) | 52 (50.5) |
| Snakes or spiders                               | 114 (56.8) | 52 (50.5) |
| Driving on highways or bad weather             | 114 (56.8) | 52 (50.5) |
| Visiting hospital or dentists                   | 114 (56.8) | 52 (50.5) |
| Life on a watercraft                            | 114 (56.8) | 52 (50.5) |

**Discussion**

The quality of health care provided to patients is a basic element of medicine. The present study revealed that resident physicians expressed lower levels of discomfort, anxiety, distress, avoidance, fear, and life interference compared to general practitioners regarding some selected social and specific situations, including using a telephone to ask for information or to speak to someone they do not know very well, getting minor surgery, watching surgery on TV or mobile, high open place, elevator, looking out window on the top floor of tall building, flying on an airplane and heavy rain, worms, thunder, and lighting. Although some of these situations appear to be away from the nature of physicians' work environment, it could indirectly reflect the impact of residency training on the social preparation of the resident physicians to face social and specific situations with less discomfort and fear. The nature of the residency board training programs as a continuous education process makes residents more able to work independently and in a more effective way if compared with those who did not attend such programs. This could explain partially the finding that residents in the present study were more prepared to face different social and specific situations with less discomfort and fear compared to their general practitioner colleagues. Literatures concluded that broad training programs impact positively the quality of health-care services provided to patients as well as the patient outcomes as they offer physicians a chance to have practical experiences.

Furthermore, these programs help trainees to acquire skills and overcome social phobia as they are trained to cope with work overload and responsibility and to cope with fear in handling situations.

One of the important comparing points between physicians in residency training programs and general practitioners is that resident physicians have to work and learn at the same time while general practitioners have to work only. This double role, usually in an ever-changing health-care environment, could have a role in decreasing social phobia among resident physicians in many situations compared to general practitioners.

Previous studies carried out in Saudi Arabia and Malaysia among medical students showed that social phobia is a common phenomenon among them. Thus, there is a need to raise awareness about social phobia and control its symptoms and prevent depression among them and in internship and residency periods. Limitations of the present study include its conduction in one city of the Kingdom, which could limit the generalizability of its results over other places of KSA. The cross-sectional design of the study is another limitation of the study as it proves the only association between the cause and effect and not causality. Despite this, the study is unique in its nature in our region and...
explored the role of a board residency program in reducing social and specific phobia among trainees.

**Main findings**
There is a need to raise awareness about social phobia and control its symptoms and prevent depression among them and in internship and residency periods. The study is unique in its nature in our region and explored the role of a board residency program in reducing social and specific phobia among trainees.

**Conclusion**
Overall, the residents in board training programs in Abha city expressed lower levels of discomfort, anxiety, distress, avoidance, fear, and life interference of some social and specific situations compared to general practitioners.

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**Conflicts of interest**
There are no conflicts of interest.

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