



Original Article

Self-concept and obsessive-compulsiveness as moderators of anxiety and depression: a Portuguese prospective study



Isabel Lourinho^{a,b,*}, Elizabete Loureiro^a, Maria Amélia Ferreira^a, Milton Severo^{a,b}

^a Faculty of Medicine, University of Porto, Department of Medical Education and Simulation, Porto, Portugal

^b The Epidemiology Research Unit (EPIUnit)-Institute of Public Health, University of Porto, Porto, Portugal

ARTICLE INFO

Article history:

Received 12 October 2015

Accepted 21 November 2015

Keywords:

Medical students
Obsessive-compulsiveness
Anxiety
Depression
Self-concept

ABSTRACT

Objective: Research shows a high prevalence of psychopathology among medical students. This study aims to assess the time trend of depression, anxiety, self-concept and obsessive-compulsiveness in medical students within the first year (short-run) and over the years (long-run) of medical school, and to measure if self-concept and obsessive-compulsiveness predict anxiety and depression trends.

Methods: At baseline, 183 freshman students that enrolled at FMUP in the 2002/03 academic year were recruited; from these, 71 (39%) participated in the short-run study and were assessed at the beginning and at the end of the first year and 151 (83%) participated in the long-run study (assessed in the first, third and fifth year). Participants answered three self-report questionnaires: the Hospital Anxiety Depression Scale (HADS), the Maudsley Obsessive-Compulsive Inventory (MOCI) and a self-concept scale.

Results: In the long-run, there was a negative linear trend with time for the MOCI score ($B=-0.68$, $p<0.001$) and for the HADS anxiety score ($B=-0.28$, $p<0.001$), a positive linear trend for self-concept ($B=1.37$, $p<0.001$) and no association with depression ($B=-0.05$). The short-run results were opposite given that anxiety, depression and obsessive-compulsiveness increased and no differences were found for self-concept.

After adjusting for self-concept and obsessive-compulsiveness, there was no effect of time on anxiety but there was a negative interaction between self-concept and time on depression scores.

Conclusions: The effect of time on depression is moderated by a protective effect of self-concept, while obsessive-compulsiveness explained time trends on anxiety scores.

It is important to understand and find the pathways of anxiety and depression to improve medical students' mental health.

© 2016 PBJ-Associação Porto Biomedical/Porto Biomedical Society. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Background

Medical students' mental health has been exhaustively studied showing high scores of stress, anxiety, depression and burnout when compared with other groups of the same age group or even in other graduate degrees.¹⁻³

Research has shown an association between personal characteristics and anxiety and/or depression scores¹⁻⁵; and some studies have focused on personal characteristics such as self-concept, obsessive-compulsiveness and distress.^{4,6}

According to some authors, self-concept is a multidimensional construct, having one global dimension (global self-concept), to which all of the other dimensions contribute and this is related with self-esteem.^{3,7} In literature, this has been linked with depression symptoms⁸ and a Portuguese study demonstrated a negative correlation between global self-concept, and anxiety and depression symptoms.⁹

An obsessive-compulsive disorder consists of obsessive thoughts such as excessive doubting and compulsive behaviours such as frequent washing.¹⁰ It seems that obsessive-compulsive symptoms are associated with perfectionism and consequently with depression.²

The relation between certain personality traits measured early in the course of medical school and later mental health among junior physicians during postgraduate internship training has been high-

* Corresponding author.

E-mail address: i.lourinho@med.up.pt (I. Lourinho).

lighted.¹¹ A twelve year longitudinal study showed that stress, burnout and satisfaction with medicine as a career in doctors correlate and were partially predicted by measures of personality traits taken five years earlier.⁵

The aim of this prospective study was: 1 - to assess the time trend of depression, anxiety, self-concept and obsessive-compulsiveness in the first year of medical school (short-run study); 2 - to assess the time trend of depression, anxiety, self-concept and obsessive-compulsiveness over the years of medical school (long-run study) and 3 - to measure if the self-concept and obsessive-compulsiveness moderates the anxiety and depression time trends.

Material and methods

Participants

At baseline, 183 freshman students that enrolled at FMUP in the 2002/03 academic year were recruited; from these, 71 (39%) participated in the short-run study and 151 (83%) participated in the long-run study.

In the short-run study, participants were assessed twice in their first year: at the beginning of the academic year (October 2002) and at the end of the academic year (June 2003).

For the long-run study, participants were assessed at three different moments: the beginning of the first academic year (October 2002), the beginning of the third year (November 2004) and the beginning of the fifth year (November 2006). Of 151 participants enrolled in the long-run study, 145 (96%) participated in the third year and 77 (51%) participated in the fifth year.

Instruments

In both studies, participants had to answer three self-report questionnaires. The Hospital Anxiety Depression Scale (HADS)^{12,13} was used to assess anxiety and depression symptoms. This scale consists of 14 items (seven items for each dimension) with four ordinal options (0-3 points). The higher (lower) the score, the higher (lower) the anxiety or depression. A score higher than seven, on either sub-scale, indicates borderline anxiety or depression.

The obsessive-compulsive symptoms were measured with the Maudsley Obsessive-Compulsive Inventory (MOCI).¹⁴ This questionnaire is widely employed in clinical settings and consists of 30 true-false items. The higher (lower) the score, the higher (lower) the obsessive and compulsive symptoms.

A 20 item self-concept scale¹⁵ was used, where the higher (lower) the score, the higher (lower) the self-concept.

Statistical analysis

The average score intra-class correlation coefficients (ICC) was used to measure the variance attributed to differences among subjects of the total variance and indirectly measuring the variance attributed to differences within subjects.

Paired sample t-tests and linear mixed-effects models were used to estimate short- and the long-run trends in each dimension assessed and to measure the influence of self-concept and compulsive behaviour on the anxiety and depression scores.

All statistical analyses were calculated in R 2.8.0.

Results

The ICC for anxiety, depression, self-concept and obsessive-compulsive symptom scores indicated moderate agreement between all of the different observations (short and long measurements). The ICC was 0.66, 0.53, 0.60 and 0.65 for the anxiety, depression, self-concept and obsessive-compulsive scores, respectively.

Short-run effect

The comparison between students who participated in the short-run study (n=71) and students who did not participate (n=112), had no statistical differences in the first assessment between anxiety, depression, self-concept and obsessive-compulsive scores.

However, there was a statistical significant increase in the score of obsessive-compulsive symptoms, and in the anxiety and depression score within the first year. The anxiety mean score increased from 6.9 (SD=3.6) to 7.9 (SD=4.5) and the depression mean score increased from 3.2 (SD=2.4) to 4.7 (SD=3.3) (Table 1). The obsessive-compulsive score increased from 8.5 (SD=4.4) to 10.2 (SD=5.9). In the self-concept scale score, there were no statistical significant differences (76.7 (SD=7.5) versus 75.6 (SD=7.5)) (Table 1).

After adjusting for obsessive-compulsiveness, there was a positive association of the obsessive-compulsive scores with anxiety and depression scores. After adjusting for self-concept, the effect of time in anxiety scores disappeared and there was a negative interaction between self-concept and time on depression scores, showing that the association of self-concept with depression was modified by time of the assessment. The association between self-concept and depression was stronger at the end of the academic year (Table 2).

Long-run effect

The comparison between students who participated in the fifth year (n=77) and students that did not participate (n=74), showed no statistical differences between their anxiety, depression, self-concept and obsessive-compulsive scores in the first assessment.

Table 1

The short-run effect (within the first year) for obsessive-compulsiveness, anxiety, depression and self-concept

	N	First year		P
		Start	End	
		Mean (SD)	Mean (SD)	
<i>Maudsley Obsessive – Compulsive Inventory</i>	68	8.5 (4.4)	10.2 (5.9)	0.006
<i>HADS</i>				
Anxiety	67	6.9 (3.6)	7.9 (4.5)	0.033
Depression	67	3.2 (2.4)	4.7 (3.3)	<0.001
Self-concept scale	71	76.7 (7.5)	75.6 (7.5)	0.175

Table 2

Models to predict the anxiety and depression scores within the first year

Model	Anxiety	P	Depression	P
	β		β	
<i>Model 1^a</i>				
Start of the year	Ref		Ref	
End of the year	0.52	0.286	1.09	0.003
Self-concept	-0.38	0.387	-0.22	0.445
End year x Self-concept	0.23	0.656	-1.13	0.003
<i>Model 2^b</i>				
Start of the year	Ref		Ref	
End of the year	0.50	0.314	1.08	0.004
Obsessive-compulsiveness	1.65	0.002	0.95	0.009
End year x Obsessive-compulsiveness	-0.45	0.416	-0.30	0.456

^a Adjusted for sex and obsessive-compulsive score.

^b Adjusted for sex and self-concept.

Download English Version:

<https://daneshyari.com/en/article/3819377>

Download Persian Version:

<https://daneshyari.com/article/3819377>

[Daneshyari.com](https://daneshyari.com)