

Short Note

Type D Personality among Undergraduate Medical Students and Physicians

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Abstract

The aim of the study was to report the prevalence of type D personality in two different samples of medical students and one sample of physicians. Elevated prevalence (range from 27.17 % to 35 %) was found suggesting that one third of physicians and/or medical students could be at risk of developing psychiatric disorders like anxiety or mood disorders.

Keywords

- Type D personality
- Anxiety
- Depression
- Students
- Physicians

INTRODUCTION

The prevalence of psychological distress that refers to anxiety, stress, depression and weak mental health among medical students during their training in different countries ranges from 21% to 56% [1]. Distressed or type D personality is characterized by high levels of negative affectivity (NA) and social inhibition (SI) [2]. Type D personality is associated with an increased risk of developing psychiatric disorders like depression, anxiety or post-traumatic stress disorder [3]. However, two studies [4,5] have suggested a relationship between type D personality and risk of suicide. The first study in a general German population reported an association between type D personality and suicidal ideation [4] and the second study in a sample of outpatients presenting major depressive disorders found that major depressive patients with type D personality had significant higher suicidal ideation, as rated by the Beck Scale for Suicidal Ideation, than major depressive patients without type D personality [5].

The prevalence of type D personality among medical students has been seldom explored and to the best of our knowledge only two recent studies [6,7] among Indian undergraduate medical students reported high prevalence. The first study found a prevalence of 31.3 % in 150 undergraduate medical students (104 males, 46 females) of different academic years [6]. The second study [7] explored the prevalence of type D personality in 152 undergraduate medical students of second academic year. Unfortunately, the authors did not report the rate of students who had scores equal or higher than 10 on both Type D personality questionnaire (DS 14) subscales of negative affectivity (NA) and social inhibition (SI). The authors [7] reported only the rate of subjects having high scores on NA subscale (55.3%) or SI subscale (76.3%). Their results suggested high prevalence of type D personality in their sample. The two studies [6, 7]

suggested strongly a high prevalence of type D personality in medical students. Taken into account that the two studies have been conducted in India it is important to know if these high prevalence could be found in another countries.

The aim of the present study was to report the prevalence of type D personality in two samples of undergraduate medical students from two European countries. Moreover a sample of physicians working at hospital was also studied.

The first sample included 100 undergraduate medical students of different academic years (68 women, 32 men) with a mean age of 20.92 years (SD = 2.57, range 18-26 years) from the Vilnius university (Lithuania) as well as 92 physicians (82 women, 10 men) with a mean age of 52.8 years (SD = 10.81, range: 24-73 years) working in the different hospital of the town.

The second sample included 204 undergraduate medical students of different academic years (102 women, 102 men) with a mean age of 21.48 (SD = 1.99, range: 18-32 years) were included from the University of Mons or the free University of Brussels (Belgium).

The subjects filled out the Lithuanian or the French version of the Type D personality questionnaire (DS 14) that has satisfactory validity and reliability [8]. The DS 14 consists of two 7-item subscales that measure personality trait of NA or SI. Each item is scored on a 5-point Likert scale from 0 (false) to 4 (true) with scores ranging from 0 to 28 on each subscale. Score equal or higher than 10 on both DS 14 subscales indicates type D personality.

Prevalence of type D personality was given in each group with 95% confidence interval (95% CI).

For Lithuanian medical students and physicians the prevalence were respectively 27.17% and 35%, the difference

was not significant ($\chi^2 = 1.37$, $df = 1$, $p = .24$). Thus, the two groups were pooled and the prevalence of the type D personality for all the Lithuanian subjects was 31.25% (95% CI = 24.7-37.8%).

For Belgian medical students the prevalence was 31.86% (95% CI = 25.5-38.3%).

Finally, the prevalence in the Lithuanian and Belgian samples were compared and the difference was not significant ($p = .89$). Thus, the Belgian and Lithuanian samples were pooled. Among the 396 subjects 125 had a type D personality (31.57 %, 95% CI = 27-36.1%).

The present study in two different samples of medical students or physicians from two different European countries found that the prevalence of type D personality did not differ firstly between Lithuanian medical students and physicians and secondly between Belgian medical students and Lithuanian medical students or physicians.

When the two samples were pooled the prevalence (31.57%) was similar than the sole prevalence reported in the literature and concerning Indian medical students (31.3%).

Moreover, the two prevalence did not differ significantly ($p = ns$).

The present study suggests strongly a high prevalence of type D personality in medical students or physicians and that this prevalence was independent of the culture.

Taking into account that the prevalence of psychiatric disorders and notably depressive or anxiety disorders is high in physicians or medical students, the present study suggests strongly that type D personality could constitute a factor of vulnerability.

One recent study [9] in 217 adults from general population or universities of United Kingdom has explored the relationships between type D personality, health-related behaviour (e.g. smoking, physical activity), physical symptoms and quality of life. The results showed that health behaviour may partly mediate

the relationship between type D personality and poor health outcomes.

Follow-up studies are needed to explore the stability of type D personality in medical students or physicians and to test the hypothesis that type D could constitute a risk factor for psychiatric disorders.

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