Positive medical education: Are we focusing on the right things while teaching? [version 2]

Alvaro Tala
Universidad de Chile

Abstract
This article was migrated. The article was marked as recommended.

Neuropsychiatric disorders are a global problem and medical students are a population with high vulnerability to mental disorders. Medical education is currently in crisis considering the alarming rates of mental health problems reported in medical students. These problems not only compromise the health of students but also their learning processes and patient care. In this context, it is necessary to move towards a medical education that considers, in addition to the academic performance, the well-being of medical students as a central focus. Positive psychology with interventions at individual level and positive education with interventions at institutional level could provide a response based on the evidence to this problem through positive medical education. This article addressed a personal view of how positive medical education can benefit medical students.

Keywords
Positive Psychology, Positive Education, Medical Education, Well-being

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1. Sateesh Babu Arja, Avalon University School of Medicine
2. Neslihan Onder-Ozdemir, The University of Sheffield
3. P Ravi Shankar, American International Medical University
4. Susan Van Schalkwyk, Stellenbosch University
5. Meghana Sudhir, Mohammed Bin Rashid University of Medicine and Health Sciences
6. Subha Raman, Harvard Medical School, Brigham and Women's Hospital

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Medical students are a population with greater vulnerability to mental disorders compared to populations of similar age range due to various factors, such as role transition, sleep deprivation, poor support systems, work overload, academic demands and pressures of the clinical environment (Goldman, Shah and Bernstein, 2015; Moir et al., 2018). Several studies have shown alarming rates of depressive symptoms up to almost 30% and suicidal ideation up to 11% in this population (Hope and Henderson, 2014; Goldman, Shah and Bernstein, 2015; Rotenstein et al., 2016) and given how the learning environments are structured nowadays medical students tends to neglect their well-being to prioritize their academic performance. Although universities have implemented various strategies, including mental health programs, mindfulness-based stress reduction, among others strategies to promote the well-being of its students from different approaches, they have not been able to find a definitive answer to this problem and even many times are being confronted with that students do not value these strategies as useful for their well-being (Wasson et al., 2016; Ayala et al., 2017).

In this context, I think the work carried out by positive psychology in the topic of well-being and education stands out. Positive psychology is a field that focuses on the scientific study of the conditions and processes that contribute to the flourishing or optimal functioning of people, groups, and institutions. This field includes the empirical study of well-being from different perspectives, such as gratitude, engagement, forgiveness, flow, optimism, post-traumatic growth, resilience, strengths, emotional regulation, creativity, among others (Gable and Haidt, 2005; Jeste et al., 2015). I think interventions from the positive psychology point of view could bring benefits to medical education. Proposing interventions to medical students to promote their well-being from the perspective of specific mental disorders may lead to problems, such as the pathologization of normal experiences and focus the strategies on some disorders over others. Also, students may not perceive themselves as sick, or even if they do, the may not seek help in suitable time because of the stigma associated with mental disorders (Arango et al., 2018; Moir et al., 2018). From the framework of positive psychology, interventions have been studied that could not only reduce depressive symptomatology but also increase well-being in its various components, which with small to moderate effect sizes that could be sustained over time (Sin and Lyubomirsky, 2009; Bolier et al., 2013; Quoidbach, Mikolajczak and Gross, 2015). Some of these interventions also have the advantage of being able to be widely spread online and self-applied without the need of the specific mental health disorder diagnosis. For example, gratitude visit is an intervention that can be taught online and self-applied which consists in writing and delivering a letter of gratitude in person to someone one wants to than. I think all of these advantages could avoid the issues described above.

Under the umbrella of the positive psychology also positive education exists. Positive education implies the application of principles of positive psychology to education, blending the measurement and development of competencies related to well-being with the development of traditional competencies in education, for example, by helping students to identify their signature character strengths and increasing the use of these strengths in day-to-day life, including learning activities (Seligman et al., 2009). Within this approach, many great scientists in various fields (e.g. psychology and education) have managed to carry out initiatives worldwide, in countries like the United Kingdom, Australia, Mexico and the United States of America, both in schools and universities, to generate concrete educational programs with measurable results (Seligman et al., 2009; White and Waters, 2015; Chen, 2016; World Government Summit and IPEN, 2017). This on the basis that well-being would have aspects that could be intervened and strengthened through education.

Unlike positive interventions that can be applied and evaluated at an individual level and sometimes even applied independently of the existing curriculum, curricular or institutional changes are complex processes that are usually shaped by economic, social and cultural aspects. Here is where positive education is needed. Interventions at school level have shown that they could prevent adverse outcomes in mental health and that they can increase good relationships, engagement in learning, cooperation, assertiveness, and self-control, among other qualities (Seligman et al., 2009; Adler, 2016). I think these qualities can benefit medical students to meet the needs of the modern healthcare. However, there is a lack of data related to positive education in medical curricula across the world. An example of how positive education can be applied in the universities is found in the experience of Tecmilenio University in Mexico. They added to their curriculum a positive psychology course and a well-being based learning ecosystem. They found out that students
exposed to this approach outperform students with no-exposure in well-being and learning outcomes. Other changes that can be made at institutional level include changes in the evaluation system from one based on grades to one consisting on passing or failing, changes in teaching methodologies, such as the use of problem-based learning, reduction of the academic load, increase of the elective courses, establishment of learning communities and implementation of mentoring (Slavin, Schindler and Chibnall, 2014).

I think that more important than the specific interventions, which still require further studies to ensure their effectiveness, is the contribution that the paradigm of positive psychology offers to medical education in the following question: “What is the purpose of teaching/learning?” From my point of view, the potential answer to this question could be that we learn and teach to maximize the well-being of individuals and eventually of the society. In this context, educational institutions are a fundamental place from which well-being can be worked since they are environments that frequently affect the well-being of the students and since they are the place where students spend most of their time. Although WHO defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (Constitution of WHO: principles, 2018), in my experience from medical education, the time students spend in medical education tends to focus particularly on disorders and pathologies over well-being. How do we expect that future physicians focus on health when they treat their patients and not only in their ill-being if we do not teach them about well-being?

Based on the discussion above, I believe that incorporating aspects of positive psychology into medical education could bring us closer to teaching about health as conceived by the WHO. From my perspective, it could also be a golden opportunity to reduce the alarming rates of mental health problems that affect medical students worldwide, improve their well-being, and even improve their learning outcomes. I think medical education has focused for a long time in academic outcomes and in the process has compromised the well-being of our students. This could change if we start to measure and promote well-being in medical schools and I believe this can be done by using positive psychology and positive education as frameworks to develop a positive medical education. More attention should be paid to the advances in these fields and the possible contributions that they can deliver to medical education as they could help us to refocus our teaching practices to the ultimate goal of life, happiness.

**Take Home Messages**
- Medical students are a population with high vulnerability to mental disorders
- Mental disorders may compromise the health of students, affect their learning processes and patient care
- Not only medical students but also institutions have a crucial role in student well-being
- Positive psychology and positive education can improve well-being and learning outcomes in medical students
- Positive medical education could be an educational approach that improves medical education

**Notes On Contributors**
Alvaro Tala, MD, is a Psychiatrist and Assistant Professor in the Psychiatric University Clinic, Faculty of Medicine, University of Chile, Santiago, Chile.

**Declarations**
The author has declared that there are no conflicts of interest.

**Ethics Statement**
An ethics statement is not required as this is a personal view.

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Version 2

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Hassaan Waqar
St Helens and Knowsley Teaching Hospitals NHS Trust – Lead Employer

This review has been migrated. The reviewer awarded 3 stars out of 5

An interesting perspective piece on the effect of mental health on medical students and how as teachers we should take account of this. The abstract succinctly describes how mental health problems amongst medical students can impact their learning and the interventions that can take place to reduce this impact. In the main body of the article, the author details the extent to which mental health problems can impact medical students. The author also explores interventions that have been used by institutions to help students manage these problems. The author focusses on positive psychology as the intervention of choice, however does not explain why this approach is better than the other approaches. Additionally, whilst the importance of positive psychology and later positive education is highlighted, the obstacles to adopting these concepts on an institutional level are not explored. By using a wholistic definition of health, as advocated by the World Health Organisation, the author reinforces the idea of using positive education methods to improve the overall educational experience. This is an excellent idea as it emphasises a wholistic approach to medical education. The positive wholistic approach identified by the author is an area that may require further research in order to identify methods which can be utilised to alter medical education frameworks to shift the focus to wellbeing in medical schools. The take home messages are clear and simple to understand and neatly summarise the main points of the article. Overall, a very interesting article exploring novel methods of improving the quality of medical education by focussing on the wellbeing of medical students.

Competing Interests: No conflicts of interest were disclosed.

Reviewer Report 03 October 2018

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Sateesh Babu Arja
Avalon University School of Medicine

This review has been migrated. The reviewer awarded 4 stars out of 5

I would like to congratulate the author for taking up such a challenging issue in medical education wellness of medical students and positive education. I thoroughly enjoyed reading this paper. It is clearly written and easily understandable. The author revised the paper based on suggestions of the reviewers of previous version. Author clearly explained the interventions and initiatives could be taken to promote wellness of medical students and positive medical education. This paper is useful for all academic administrators who are involved in student affairs and student services and responsible for wellbeing of medical students.

**Competing Interests:** No conflicts of interest were disclosed.

Reviewer Report 06 September 2018

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Subha Ramani
Harvard Medical School, Brigham and Women's Hospital

This review has been migrated. The reviewer awarded 4 stars out of 5

I enjoyed reading this paper. Positive psychology is a new concept to me and I found it interesting in how the author linked these principles and described its relevance to positive learning. Wellness is a subject that is actively being addressed in medical education, this paper highlights the urgency of wellness interventions for students. The author also clearly describes what interventions could be consistent with the principles of positive learning and emphasizes the responsibility of institutions in this area. The author has responded very well to reviewer comments on the previous version. There is simplicity and clarity in this paper and sentences are shorter and much better written. I recommend this paper to all educators implementing wellness initiatives, all educators who should be monitoring signs of mental disorders among their students and seeking help.
**Competing Interests:** No conflicts of interest were disclosed.

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**Version 1**

Reviewer Report 08 August 2018

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**Meghana Sudhir**
Mohammed Bin Rashid University of Medicine and Health Sciences

This review has been migrated. The reviewer awarded 2 stars out of 5

I do acknowledge the global issue of stress and burn out and its impact on mental health among medical students. I am unable to relate the title and personal view of the author. Personal view or opinion can be more effectively emphasized with more supportive evidence which is lacking in this paper. The lengthy sentences and lack of punctuation takes away the essence of the article. I would suggest the importance of proof reading before submitting. The terms Positive medical education & positive psychology needs more clarity.

**Competing Interests:** No conflicts of interest were disclosed.

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Reviewer Report 06 August 2018

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**Susan Van Schalkwyk**
Stellenbosch University

This review has been migrated. The reviewer awarded 3 stars out of 5

There can be no doubt that the mental health well-being of students in the health professions is a growing source of concern and requires our attention. The author raises a number of important issues in this regard and the recommendation that a more positive and focused approach to teaching would have
value is an interesting one. Further exploration of what is meant by this and how it could manifest in a practical way, would enhance understanding. The title is possibly a little too cryptic. The lengthy sentences also detract from the readability of the piece. In addition, providing some indication of the author's own credentials would provide a context within which the recommendations can be considered.

**Competing Interests:** No conflicts of interest were disclosed.

Reviewer Report 03 August 2018

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P Ravi Shankar
American International Medical University

This review has been migrated. The reviewer awarded 3 stars out of 5

The title of the paper is interesting. However, I am not sure that the paper fully justifies the title. The author briefly mentions about the importance of positive education in medical schools. One of the challenges for readers like me is that positive education and the topics which should be addressed are not described. I must admit that I am not aware of what exactly is meant by positive education. I would be grateful if the author can explain this in the manuscript. The article can benefit by being more specific and focused on what areas should be covered under positive education. I can sympathize with the author whose first language is not English but the standard of written English could be improved. There are also a few spelling and punctuation errors which can be corrected.

**Competing Interests:** No conflicts of interest were disclosed.

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Neslihan Onder-Ozdemir
The University of Sheffield
Dear Alvaro Tala, Thank you very much for highlighting the ‘significance of neuropsychiatric disorders’ as mental health problems with potentially harmful effects on medical students’ education and patients’ care. Unfortunately, in every stage of education mobbing and bullying are at an alarming stage that are highly likely to bring about devastating effects, including neuropsychiatric disorders. Indeed, fulfilling lives should be on the agenda for the enhancement of medical students' years in medical education. Indeed, one of your key messages “Positive medical education could be an educational approach that improves medical education” is a concise message. Below are my basic comments about punctuation you may consider: In the Abstract, a “dot” is needed for the last sentence: This article addresses a personal view of how this approach can benefit medical students [. ] Please delete the comma after “medical students” in the following sentence: Not only medical students[,] but also institutions have a role in student well-being Please delete the “dot” after the question mark in the following sentence: How do we expect that future physicians focus on health when they treat their patients, not only in their ill-being, if we do not teach them about well-being[.] 

**Competing Interests:** No conflicts of interest were disclosed.

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Sateesh Babu Arja
Avalon University School of Medicine

I enjoyed while reading this paper. This is such an interesting topic in the current medical education. Physical and mental well-being of medical students and burnout issues among medical students and residents became hot topics in the medical fraternity. Even recently when I attend the conference of International Association of Medical Sciences Educators (IAMSE), there was a lot of discussion regarding well-being of medical students. It emphasizes the importance of having effective learners support system in all universities. This learners support systems should be able to provide support in academic and professional development and provide personal support in coping up with the physical and emotional demands of the school. It is good to see authors picked up an important topic. Most of us may like their suggestion to incorporate positive psychology into medical education and curriculum. But I would like to see how this can be incorporated into curriculum. Authors might would like to elaborate on this.
**Competing Interests**: No conflicts of interest were disclosed.