

## How to Choose the Best Evidence?

### Como Escolher a Melhor Evidência?

**Keywords:** Decision Making; Evidence-Based Medicine; Guideline Adherence; Portugal; Practice Patterns, Physicians; Quality Improvement

**Palavras-chave:** Adesão a Diretrizes; Medicina Baseada em Evidências; Melhoria de Qualidade; Padrões de Prática de Médica; Portugal; Tomada de Decisões

In a recent study, grounded in an extensive systematic review followed by a modified Delphi survey of health professionals and consensus meetings, published in May 2018 in the newest journal of the JAMA Network, JAMA Network Open, Albarqouni *et al* described 68 Evidence-Based Practice (EBP) core competencies that health professionals should have in order to work optimally, and that should be integrated into the *curricula* of undergraduate, postgraduate and continuing professional development programs.<sup>1</sup>

Some of these EBP core competencies deserve be reproduced here: 1) "Lack of time to find and assimilate evidence as a clinician"; 2) "New, brand-named, or more expensive treatments are not necessarily better than current alternatives"; 3) "Outline the advantages of using filtered or preappraised evidence sources and recognize relevant resources"; and 4) "Engage patients in the decision making process, using shared decision making, including explaining the evidence and integrating the preferences".

These important topics for clinician-educators resonate

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## Estatisticamente Significativo

### Statistically Significant

**Palavras-chave:** Estatística como Assunto; Interpretação Estatística de Dados

**Keywords:** Data Interpretation, Statistical; Statistics as Topic

enormously in the Editorial of Vieira *et al* "Choosing Wisely Portugal – Escolhas Criteriosas em Saúde".<sup>2</sup> The authors of the paper, who include the Director of Cochrane Portugal and the President of the Portuguese Medical Association (Ordem dos Médicos), announce the implementation in Portugal of the worldwide campaign Choosing Wisely.<sup>3</sup> Choosing Wisely is a medically led campaign focusing on engaging doctors and patients in decisions about potentially unnecessary medical tests, treatments, and procedures.<sup>3</sup> The programme also assumes the intent of inculcating their principles and evidence into health education programs.<sup>3</sup>

Some questions are pertinent considering the use of the program as a preappraised evidence source: a great effort to develop and publicize evidence sources has been implemented by the Directorate General of Health (DGS) over the last few years, and both programs have an active participation of the Portuguese Medical Association. Will Choosing Wisely Portugal recommendations be developed with some consideration of the DGS guidelines, or are they expected to be totally independent? And how will the user of Choosing Wisely Portugal resources appraise the recommendations' development process? Will recommendations be developed mainly by experts in the field, when it is well known that, when presented with the same evidence, a single specialty group will reach different conclusions compared to a multidisciplinary group?<sup>4</sup>

These are simple and pertinent questions whose ultimate aim is to value and fine-tune the Choosing Wisely Portugal campaign, as well as promote the involvement of health professionals in a program to which the Portuguese Medical Association has committed itself.

Li com muito interesse o artigo "Sobre o Significado da Significância Estatística", publicado recentemente na Acta Médica Portuguesa.<sup>1</sup> Este tema assume grande importância na comunidade científica, tendo sido abordado recentemente num *workshop* da Harvard Medical School que decorreu em Setembro, no Porto.<sup>2</sup> Como é referido no artigo, o valor *p* é frequentemente aplicado e interpretado de forma inadequada. De facto, há evidência que muitos investigadores na área da Medicina não dispõem de

conhecimento suficiente em Bioestatística para interpretar uma parte considerável dos ensaios clínicos publicados na literatura.<sup>3</sup> Do mesmo modo, o autor John Ioannidis ressalva que o valor  $p$  não avalia a magnitude de uma associação nem a importância de um resultado, e refere que a maioria das afirmações sustentadas por um valor  $p$  ligeiramente inferior a 0,05 provavelmente serão falsas.<sup>4,5</sup> Este problema é especialmente relevante no contexto dos estudos observacionais, em que não é necessário pré-registar qualquer protocolo de investigação, pelo que várias análises

estatísticas podem ser realizadas até se encontrar aquela 'estatisticamente significativa'.

Uma possível abordagem, frequentemente sugerida, seria baixar o limiar de significância para 0,005. Como consequência desta medida, cerca de um terço dos ensaios clínicos 'estatisticamente significativos' publicados no passado iria deixar de o ser.<sup>5</sup> Apesar de imperfeita, esta solução poderá ser benéfica no campo dos estudos observacionais, permitindo sobretudo eliminar ruído, sem grande perda de informação relevante.<sup>5</sup>

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**Letter to the Editor about the Article: "Still Regarding Anxiety, Depression and Academic Performance: A Study Amongst Portuguese Medical Students Versus Non-Medical Students", by João Moreira de Sousa, Cátia A. Moreira, Diogo Telles-Correia. Acta Med Port. 2018;31:454-62.**

**Carta ao Editor sobre o Artigo: "Ainda a propósito do artigo Ansiedade, Depressão e Performance Académica: Um Estudo em Estudantes Portugueses de Medicina Versus Estudantes de Outros Cursos." João Moreira de Sousa, Cátia A. Moreira, Diogo Telles-Correia. Acta Med Port. 2018;31:454-62.**

**Keywords:** Academic Performance; Anxiety; Depression; Stress, Psychological; Students, Medical

**Palavras-chave:** Ansiedade; Depressão; Desempenho Académico; Estudantes de Medicina Portugal; Stress Psicológico

Dear Editor,

We read with great interest one article regarding the prevalence of anxiety and depression amongst Portuguese medical students.<sup>1</sup> We were glad to read this paper as we believe it is such an important topic that is so often

overlooked in our small country's clinical practice and scientific literature. Some years ago, we did a study with third year students at our medical school and we found similar results, even though we used different assessment measures: 15.5% of students in our sample were highly vulnerable to stress and 3.1% of students had serious psychiatric disease.<sup>2</sup> This kind of results worries us, suggesting that the mental health of the Portuguese physicians of tomorrow should raise concerns.

Medical School is, indeed, where everything important in the life of a physician starts, regardless of future professional choices. And we believe burnout among our professional class starts in medical school, which contributes to higher levels of anxiety and depression. Burnout syndrome is an international epidemic amongst medical doctors all around the world that has been assessed in our country among health workers,<sup>3</sup> and we shall not underestimate its eventual tragic consequences, starting with trainees.<sup>4</sup>

We would like to congratulate the authors of the aforementioned articles, hoping that they may raise awareness about this problem, particularly to competent authorities<sup>5</sup> so that this it can be managed swiftly and assertively through a preventive and longitudinal approach that should include not also medical students and specialty trainees, but also experienced seniors.

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