Teaching Psychology in Medicine: The Context, Methodologies and Doctor's Professional Identity

O Ensino da Psicologia em Medicina: Contexto, Metodologias e Identidade do Médico

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ABSTRACT

Introduction: Teaching Psychology in medical curriculum has been the subject of numerous dissertations that focus on the relevance of this knowledge for doctors, at a general level.

Methods: A non-systematic review of the relevant literature, particularly from the last decade, as well as national and international recommendations addressing the need for integration of behavioural and social sciences in medical training, was performed.

Results: The literature supports the existence of preconceptions and negative attitudes towards the role of psychology in medical education, demonstrated by research in various european and american universities. The socio-cultural context, the different methodologies and barriers experienced by teachers in medical education are listed and provide the matrix for a more comprehensive discussion of the development of the doctor's identity.

Conclusion: Revisiting the experience of many years of teaching Medical Psychology, it is considered that the process of integration of this curricular area should occur horizontally and vertically throughout the course, stressing the need for the pedagogical training of teachers. Concepts that arise from personal reflection, adjusted to the reality of our education and the basic principles that guide it, are elaborated in order to integrate the teaching of Psychology in Medicine, emphasizing its importance and utility in the competencies and abilities of future doctors.

Keywords: Medical Education; Psychology; Pedagogy; Medical Training; Professional Identity.

RESUMO

Introdução: O ensino da Psicologia no currículo do curso de Medicina tem sido alvo de inúmeras reflexões que se debruçam sobre a importância destes conhecimentos, a um nível geral, para os médicos.

Métodos: Procedeu-se a uma revisão não sistemática de literatura relevante, particularmente da última década e de recomendações nacionais e internacionais que se debruçam sobre a necessidade de integração das ciências sociais e do comportamento na formação médica.

Resultados: A literatura suporta a existência de pré-conceitos e atitudes negativas face ao papel da Psicologia na formação médica, demonstrada pela investigação em várias universidades europeias e americanas. O contexto sociocultural, as diferentes metodologias e as barreiras sentidas face a este ensino são enumerados, fornecendo a matriz para uma discussão mais abrangente da formação da identidade do médico.

Conclusão: Revisitando a experiência de muitos anos de ensino na Psicologia Médica, considera-se que o processo de integração desta área curricular deve ocorrer de forma transversal e vertical, ao longo de todo o curso, salientando-se a necessidade da formação pedagógica dos docentes. Procura-se, assim, elaborar conceitos que decorrem de uma reflexão pessoal e que se pretende ajustada à realidade do nosso ensino e aos princípios básicos que o norteiam, de forma a integrar o ensino da Psicologia no curso de Medicina, acentuando a sua importância e utilidade no desempenho de futuros médicos.

Palavras-chave: Ensino Médico; Psicologia; Pedagogia; Formação Médica; Identidade Profissional.

INTRODUCTION

The teaching of Psychology within Medicine has gone through a course related to the revision of medical education in general, which itself is very dependent on sociocultural, political, scientific and technological contexts. Even though there is a consensus towards the behavioural and social sciences (BSS) concepts that are most relevant for medical training, it is still necessary to thoroughly research what prevents the complete integration of these subjects in medical education.[1] De Visser,[2] reflecting over the position of Psychology in the medical curriculum, emphasises the role attributed to biomedical sciences, considered as an indispensable component, designated as "need to know" and the behavioural and social sciences, considered as interesting but not essential, or "nice to know". Without questioning the biomedical sciences as being the core of medical training, the author highlights all the literature that justifies the transition of Psychology towards a "need to know" basis. He denotes the need for a vertical integration of this teaching throughout the curricula, but also putting emphasis on the clinical interest of these subjects and the need for innovative ways of teaching that are more focused on the practical aspects rather than the theoretical perspectives.

The separation and sequential teaching of the basic/clinical sciences perspective has been frequently discussed. In 2009, Martins e Silva stated that "the interdisciplinarity of the medical sciences is an indisputable reality with increasing importance. It is not rational that

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the teaching (and evaluation) of the various disciplines of Medicine continue to occur in sections virtually separated, although occasionally overlapping. Quite the contrary, the teaching should flourish through an ample interdisciplinary (horizontal and vertical) of the related and sequential contents, favouring an integrated, analogical and critical comprehension of knowledge, attitudes and expertise".[3] This statement has resulted from the impact of national and international movements that looked for restructure the teaching of Medicine, considering the successive developments of its more technological side, scientific advancements and information available. The teaching redesign that is anticipated to be indispensable also arises from what is to be expected from a 21st century doctor, as well as from the modification of economic and sociocultural levels, determining a change of role and a new definition of priorities according to the requirements of health services and the assisted populations.[4]

The aim of this study is to review the 'state of the art' and contribute to a more substantiated discussion of the teaching of Psychology within Medicine.

METHODS

A non-systematic review of the relevant literature, particularly from the last decade, as well as national and international recommendations addressing the need for integration of BSS in medical training, was performed. This review also intended to explain and underline the existence of preconceptions and negative attitudes towards the role of Psychology in medical education. The different contexts, methodologies and barriers experienced towards this teaching were listed, providing the matrix for a more comprehensive discussion on the development of a doctor's professional identity.

Context and methodologies

In the document "*O Licenciado Médico em Portugal*/ Core Graduates Learning Outcomes Project", published in 2005 and including guidelines for medical training defined by the group of Portuguese Faculties and chaired by Faculdade de Medicina da Universidade de Lisboa,[5] Fernandes e Fernandes refer to the importance of "defining the ideal profile of the medical doctor and the combined set of knowledge and competencies considered essential for ulterior development, as a Person and as a useful Doctor towards patients and Society". From section 4, entitled "Learning outcomes of undergraduate medical education" the following topics are highlighted:

- Normal psychological development throughout the life cycle, psychological defense mechanisms, normal and abnormal psychological responses to illness and injury;
- Normal growth and maturation of the foetus, newborn, infant, child and adolescent and of the effects of growth and development on the biological and clinical manifestation of disease;
- The normal ageing process in terms of biologic, psychosocial and clinical manifestations as well as knowledge of age-related diseases and varied causes of disability in old age;
- The differences between medical and non-medical definition of 'disease' and 'illness': different variables involved in the process (difference between curing versus healing);
- Efficacious prevention and treatment of common diseases and syndromes including: pharmacology; surgery; radiotherapy; psychotherapy; immunotherapy; gene-replacement therapy; nutritional therapy; physiotherapy; lifestyle modification such as smoking cessation and weight control;
- The main determinants and obstacles to the healing process, including such issues as personal psychodynamics of the therapeutic encounter, environment, community, and spirituality;
- The physician 'as a person' and how personal issues, embedded in the physician (for example vulnerability, illness) may affect the ability of the physician to deliver optimal care; the concept of self-care (including an understanding of the 'wounded healer').[5]

Acquiring these competencies requires knowledge, even though general, of fundamental topics of Cognitive Psychology, Developmental, Dynamic and Health Psychology. This requires also the adoption of a multicausality model of the diseases, including biological, psychological and social variables, in contrast to a strict biomedical model with a linear causality, which is necessarily reducionistic.[6-8]

In an evidence-based proposal looking to standardise the curricular content in English Medical Schools and in line with the recommendations made by the Behavioural and Social Sciences Teaching in Medicine (BeSST), Psychology Steering Group,[9] Cordingley *et al*[10] present a study developed with medical doctors, psychologists and education specialists that has allowed to identify relevant topics towards the practice of good medicine. Stemming from these topics, the authors promote a broader discussion and concluded on the design of an integrated curriculum, to be implemented following horizontal and vertical integration processes throughout medical training (Table 1).

It is therefore in this context that becomes clear the need to plan contents and implement methodologies that respond to the defined objectives, according to national and international recommendations.

From the curricular content point of view, a horizontal and vertical integration of the subjects, as well as a teaching directed at a patient-centered medical practice, are currently agreed on.[11,12] In terms of methodologies, the models centred on attaining competencies and on the role of the student have been amply debated and assumed increased importance.[13-15] The incorporation of new communication technologies, the standardizing of curricula, but in a flexible mode, with further development of research on medical education, are presented as unavoidable necessities.[16,17] The planning and development of the curricular model with the acronym SPICES, summarized,

Table 1 – Proposal: Integrated curriculum summary for the teaching of Psychology within Medicine. Adapted from Cordingley *et al*, 2013.

Psychology – The core knowledge
- Psychological factors in health and illness
- Psychological response to illness
- Psychology across the life span
- Cognitive functions in health and illness
Psychology – The professional practice
- Clinical reasoning and decision-making
- Human communication and communication skills training
- Research methods and evidence-based medicine
- Social processes that shape professional behaviour
- Stress, well-being and burnout
- Leadership and teamwork
- Teaching the next generation of doctors
Psychology – Contribution to educational process
- Learn how to learn
- Skills training
- Reflective practice
- Contextualized learning
- Feedback and appraisal
- Assessment design and quality control
Organisational Psychology topics – Postgraduate level
- Leadership
- Selection and Evaluation
- Organizational Changes: Managing change processes

more than three decades ago, the educational strategies to be implemented in the medical curriculum: Student-centred, Problem-based, Integrated, Community-based, Elective and Systematic.[18] Recently, other models place the patient at the centre of the efforts developed by medical schools, to align the educational and clinical contexts in pre-graduate and graduate education. The aim is to improve learning outcomes, recognizing the dynamic relationship between the medical school, the student and the clinical microsystem that influences the quality of medical training and the care provided to patients.[19]

The strategies that promote active student involvement and that stimulate the development of critical reasoning seemed to be most effective in the learning process, according to practical experience and knowledge rendered by cognitive sciences. This teaching is defined as a process of acquiring knowledge, skills, attitudes and values that start from a student's participation in learning, as opposed to a passive position of receiving knowledge. Likewise, cooperative learning favours the gain of knowledge in a more solid and lasting manner. Both processes are relevant and included in problem-based learning, which is widespread in medical schools.[20,21] Some research has shown that this will be a preferential form of teaching given the current demands of medical training, although it also sometimes lacks the theoretical deepening that only occurs from a more abstract discussion of the concepts.[22]

The barriers confronted in teaching Psychology within Medicine

Where then, do the barriers against the transmitting and acquiring of knowledge within this curricular area arise? To explore these barriers experienced by teachers, Litva and Peters[23] described five distinct areas. The first barrier is the difficulty of finding qualified and sufficiently experienced teachers to implement the teaching of BSS within medical education; the second refers to the space assigned to this teaching in medical curricula; the third and perhaps the most important, concerns the epistemological dimension, which the authors refer to as 'entrenched epistemologies', signalling the dominant biomedical culture. The models of biomedical causality are in fact the most valued in traditional medical teaching[24] and in the mode that students are evaluated. This will be a major barrier in the sense that the knowledge conveyed modulates the training of students and new doctors, which then perpetuates the way medical education views these disciplines and labels them as 'less scientific'. The two other areas identified relate to curricular integration and to the perception of the relevance of psychological and social aspects by teachers in other fields. The depreciation of these aspects by the faculty in general coveys a clear message to students and these barriers are implicit in the informal plan and in the 'hidden curricula', therefore it is important to investigate how this information is communicated and assimilated.

Peterson *et al* sought to analyse the perception of fourth year medical students, exposed during the four years to a curricular revision that integrated Mental Health and the social sciences, including six domains of BSS: economics and health policies, patient behaviour, doctor-patient interactions, mind-body interactions, the doctor's role and behavioural, cultural and social aspects. This study resulted in the notion that these topics were understood and considered relevant to clinical practice although at times, poorly integrated into advanced education. However, difficulties arose in terms of mind-body interactions and the cultural and social aspects, attributable to a cultural disaccord between biomedicine and BSS. Despite this, students valued this curricular orientation and stated that this knowledge should be further developed through a practical and tutorial manner.[25]

Some of the difficulties recognized in the teaching of Psychology within medical curriculum are structured by Benbassat *et al*, around three essential points: a) the need to prioritize learning objectives in accordance to relevant clinical competencies; b) the importance of curricular integration following the biopsychosocial model and c) the need for teachers trained in the application of behavioural sciences within Medicine.[26] The students' difficulty at accepting these disciplines will eventually be justified by the absence of guidelines in most medical schools. A greater effort is therefore required to increase the quantity and quality of the teaching of BSS in the education and training

of doctors.[27] It is also necessary to change medical culture, taking into account the various facets and normative character of the paradigms on health, illness and medical practice, or at least gain the capacity to question these paradigms and develop critical thinking.[28]

The development of the Doctor's Professional Identity

The teaching strategies used in medical education are of major importance. The literature shows that there are specificities for different subjects, which Shulman calls 'signature pedagogies'. This concept, which the author elaborates towards the teaching of several professions including Medicine and Law, points out the fact that the teaching methods, in distinct areas, function as organizers of the behaviour of future professionals in three levels: how one thinks, how one performs and how one acts with integrity.[29] In medicine, the focus is on the preparation for adequate professional performance, which requires the ability to make decisions in a context of uncertainty.[30] This question leads to the reflection about the role of a teacher who, besides being a source of delivering knowledge, should also facilitate learning, represent a model of behaviour, advise the student and facilitate his or her learning and autonomy.[31] Refers also to the need of time for reflection, reading and rediscovered knowledge in the proposal of a 'slow medicine' movement, which by analogy to other movements which tackle over-appreciation of an exceedingly rapid pace in current life. The need for a balance between speed, technology, efficiency and a more humanized and humanist attitude that values listening, relationship and presence, is stressed.[32]

In this line of thought, some resistance to the inclusion of the study of Psychology as a basic science and of transition to the clinic years appears discordant, but some explanations will be possible. Cordingley *et al*[10] consider that the small space assigned to BSS in medical curricula can be explained by attitudes and beliefs towards these disciplines, whose perspectives are understood as too critical and in confrontation with the dominant medical culture, as well as threatening the autonomy of medical thought, or lacking scientific validity and usefulness for future doctors. Students might replicate the negative critical evaluation conveyed by senior role models, therefore also demonstrating devaluation and disinterest in relation to these subjects.

From a sociological point of view, several authors have pointed out the need to consider medical education in the context of social, political and cultural reality, or even better, a personal understanding of it, according to a specific theoretical framework.[33,34] With regard to research in medical education, Frank[34] draws attention to the social sciences' methodologies applied in this area, and how the different theoretical paradigms constructed throughout the 20th century can give rise to different interpretations on the role of the doctor and the relationships that are established with the involved social structures. These issues are placed in a certain historical context, allowing to understand the influence of how we live 'in our times', on the sociology of health and disease. The author elaborates different theoretical stand-points, among them Parsons perspective, from the 1930's, on the different roles; the role of the patient and of the doctor in modernity, emphasizing the way the second legitimates the first one and structures the social expectations surrounding the different stakeholders involved in health. He also elaborates the understanding of Foucault, who emphasizes the relations of power and the way in which they modulate the individual positions, in a perspective of freedom and growth. From a narrative point of view, Frank reflects on how different social science paradigms influence the doctor's and patient's narrative and structures the relationship between them. The author defines narrative as a way of seeking meaning and constructing his or her own persona, with an important role in medical education and in the defence of a more humanized Medicine which privileges the patient and his way of living the illness.[34,33]

In a recent investigation the distinction made by medical students, in their clinical years, between a 'good doctor' and a 'professional doctor' revealed tension between these concepts. The competency, the ability to communicate and of being a good teacher were the most prominent characteristics of a good doctor. Professionalism was associated with the adoption of codes of practice and guidelines, respect for others but also the imperative to develop a professional persona, which requires some distance. Students felt more attached to the concept of 'good doctor' perceiving professionalism as an external construct which was imposed on them, pointing out the need to address the link between what is taught on a formal level and what is experienced in the complexity of medical practice.[35]

A particularly relevant issue for medical training within a sociocultural approach, is the construction of a professional identity that, according to Cruess *et al*[36] is structured in a pyramidal way integrating knowledge, skills, performance and actions. This is proposed by Miller in the sequence 'know' – 'knows how' – 'shows how' – 'does' in regard to the evaluation of the doctor's competencies.[37] However, according to these authors, these levels are insufficient to describe a coherent integration of values and personal and professional attitudes, proposing the structure to conclude in a fifth level, called 'is' and that accurately translates 'self' or professional identity.[36] This identity includes behavioural knowledge and norms, taught and learned, but also values, attitudes, expectations of others and social norms in relation to the role of a doctor which, although flexible, varies according to his or her self, but also through external demands, the weight of the social organization and the health system in which he or she works. Due to the importance it plays in medical training, the development of identity should be considered a priority in teaching, leading therefore to the restructuring of objectives and goals to be achieved.

Can the development of a solid professional identity be a protective factor in a profession with a high level of demand and overload, in the present moment when the

social changes that are experienced imply increased difficulties and further adaptations of the doctor's role? This will be a good research and reflection question, regarding the increasing levels of burnout in the medical profession and the need to prevent its occurrence at early stages.

What will then be the essential revision for a truly integrated teaching? Richard Schwartzstein,[38] professor of Medicine and Medical Education at Harvard Medical School, enquires the lack of communication and empathic abilities observed in doctors trained in top schools and questions the responsibility of the schools themselves:

"Typically, students enter medical school idealistic, eager to improve the human condition, and excited about becoming doctors. And then we do various things to change them. We have them memorize long lists of facts (or at least they perceive that as our goal), delay their involvement with patients, and expose them to frustrated and overwhelmed faculty members who are under increasing pressure to generate greater clinical revenue. And students' empathy diminishes."

The author proposes measures that involve greater contact between students and behavioural and social sciences, through their involvement in clinical activities, the choice of teachers in function of their ability to communicate the desired values, the implementation of interpersonal skills assessment strategies (central to medical training) and the necessary support in the development of these competencies, preventing the progression of training until they are obtained. Lastly, it alerts the importance for professionals to defend a logistical and financial system that allows doctors the time to be with patients and to establish a significant relationship with them.[38]

In fact, according to the recommendations of the General Medical Council[39] and the World Federation on Medical Education,[40,41] medical schools must and should follow basic and quality standards. With regard to BSS in particular, schools must incorporate and identify in their curricula the contribution of these sciences, and "modify and adjust the curriculum to integrate SBS contributions according to scientific, technological and clinical developments; the current and anticipated needs of society and the health system; demographic changes and cultural contexts."

As limitations of this review, it should be emphasized that it does not exhaust all the possible relevant aspects due to the complexity and extent of this subject, being its main limitation the nature of a non-systematic review.

CONCLUSION

The scientific context of the first decades of the 21st century will perhaps be the most stimulating, both in terms of research and medical teaching. The progress in understanding disease mechanisms associated with several body regulatory systems reinforces the need for an interdisciplinary approach. As Barahona Fernandes stated in 1979: "Throughout Medicine, we seek today to work in the direction of interdisciplinarity, pursuing the integration of knowledge and techniques and also its organized application to clinical and social praxis-both in Clinics as well as in Health."[42]

Psychology is one of the first disciplines, in medical education, where the students are called to observe patients in the perspective of an empathetic and understanding listening. This urges them to elaborate the patient's narrative and the narrative of the illness, in search of the humanist level that technological development at times undermines. The patient's narrative has in fact never ceased to be present in areas such as Psychology, Mental Health and Psychiatry. This is due to its specificity, its attempt to recover the interpretation of illness in each particular patient and the need to rediscover the subjective reality and intersubjectivity in others and in significant relationships.

Aligning the discourse of science, neuroscience in particular, and that one of the empathetic understanding in the service of a competent assessment and adequate and effective intervention, is decisive in our teaching. The delivery of knowledge and indispensable learning towards a global medical education, cannot fail to integrate these facets, because after all "... the scientific aspect is only part of the whole that makes up the medical art" (Martins e Silva, 2009).[3]

Revisiting the experience of many years of teaching in Medical Psychology, it is considered that the process of integrating this area should take a horizontal and vertical approach throughout the medical education, emphasizing the need for pedagogical training of teachers. In building the professional identity of doctors the priorities should include the integration of knowledge, development of empathetic and communication skills and the practice of a humanist medicine. The greatest challenge currently posed to the teaching of Psychology within Medicine, will be the integration of all this new information in a restructuring of contents and teaching methodologies.

OBSERVATIONS

This work is integrated in the context of a Pedagogical Report, submitted to Aggregation Degree at the Faculdade de Medicina da Universidade de Lisboa, on May 2016, having not been published.

PROTECTION OF HUMANS AND ANIMALS

The authors declare that the procedures were followed according to the regulations established by the Clinical Research and Ethics Committee and to the Helsinki Declaration of the World Medical Association.

DATA CONFIDENTIALITY

The authors declare having followed the protocols in use at their working center regarding patients' data publication.

CONFLICTS OF INTEREST

The author declares that there are no conflicts of interest.

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