

Validazione sperimentale del paradigma dell'*Evidence Based Occupational Health* del modello PICO nell'analisi decisionale del medico del lavoro

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KEY WORDS

Evidence-based medicine; evidence-based occupational health; evidence based decision making; evidence based prevention

SUMMARY

«Experimental validation of the Evidence-Based Occupational Health paradigm and of the PICO model in the decision making process applied by occupational health physicians». Background: Health care organizations are increasingly aware of the need to apply quality assurance principles to serve their mission and there is an increasing pressure on health professionals to ensure that the practice is based on evidence of appropriateness. Medical specialists of different disciplines, including occupational health, are presently required to shift from habitual practices to evidence-based practices, and have begun to use an approach based on the paradigm of Evidence-Based Medicine and of Evidence-Based Occupational Health (EBOH). **Objective and Methods:** The study was carried out to analyse how the paradigm of the EBOH could be implemented in the search, analysis and synthesis of the best available evidence to apply in the decision-making process in occupational health practice. Out of 464 medical examinations consecutively performed by 4 occupational health physicians, 6 cases were selected on the basis of their complexity and the need for further investigation. Each case was submitted to each of the 4 physicians, who were asked to make a decision according to the EBOH paradigm: i.e., (i) identification of the problem according to the PICO model, (ii) solution of the problem according to his/her internal evidence or experience (iii) search for scientific external evidence, (iv) critical appraisal of such evidence, (v) application of the evidence in the decision-making process, (vi) comparison between internal evidence and external evidence. Outcome measurements, including satisfaction of the physicians, were collected. **Results:** No differences were found between the decisions based on external evidence or on internal evidence in about 50% of the cases (13/24). In about 1/3 of the cases (7/24) no agreement was observed between the decisions taken on the basis of internal and external evidence. In some cases (5/24) no useful information was added for the purposes of decision-making. In about 50% of the cases the professionals were satisfied with the information found in databases, due to its usefulness both in increasing their knowledge and in improving their practice. **Conclusions:** Due to their involvement in a corporate system, the participants were aware of the need to practice according to quality assurance principles and to relinquish ineffective and obsolete practices. They agreed with the need to search for the best available evidence with the aim of guaranteeing

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efficacious interventions. In spite of a number of obstacles to the application of the EBOH paradigm to occupational health practice, the study demonstrated that such approach can be successfully applied in this field and that it can be proposed for the search of appropriate solutions to the problems usually encountered in professional practice.