Title: State of ethical education in UNAM medical residencies

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Context and setting: Medical practice is influenced by scientific, technological and administrative changes that generate complex ethical problems. At the National Autonomous University of Mexico (UNAM) there are 8500 medical residents located at 89 clinical sites that need to develop ethical reasoning competency.

Why the idea was necessary: Because of the large number and geographic distribution, the UNAM Division of Postgraduate Studies developed a theory to practice online course "Application of ethical reasoning in clinical practice" to reinforce residents´ competency in ethical reasoning.

What was done: The results of this new course were analyzed to determine the status of ethical reasoning among a diverse group of residents and to better align the curriculum to the ethical challenges in clinical practice that they encountered. The data are based on 1843 enrollees completing the online course in the last two years, representing 16 nationalities, 82 medical schools and the completion of pregraduate studies outside Mexico by 38%. Those enrolled completed a two part diagnostic pretest; two surveys, one on ethical situations witnessed and one on self-perception of knowledge and experience on 14 ethical dilemmas; and a multiple choice post-test (which they could take multiple times until they reached the passing score of 70%).

Evaluation of the results: The first part of the diagnostic exam revealed that 5% failed all 20 questions and 70% responded incorrectly to the questions on ethical principles and negligence. The second part, a case, showed that 50% had knowledge and skills to discuss the ethics and 60% were aware of ethical rights and duties. However, over 50% did not know the values and policies involved, and over 33% reported insufficient knowledge to establish a founded ethical decision.

On the survey on ethical situations witnessed, over 50% reported having witnessed autonomy infringement, inexperience when giving bad news, medical negligence, irresponsibility, misinformed consent process, right to information conflicts and medical errors.

For the survey on self perception there were 901 respondents and the statistical association of variables (xi^2) was analyzed. There was a strong positive ($p<.01$) between: being of older age and self-perceived competency in giving bad news to patients, handling ethical and confidentiality conflicts, respect for patient autonomy, and non-abuse of diagnostic and therapeutic resources. Completing pregraduate studies at a private medical school was associated ($p<.01$) with self-perceived competency in handling problems dealing with information rights, and the opposition of ethics with institutional or insurance policies. Being married was associated ($p<.01$) with self-perceived competency in giving bad news to patients, non-abuse of unnecessary diagnostic and therapeutic resources, assuming responsibility for the ethical decision and being just in clinical practice.

The post-test revealed a considerable increase in knowledge: 31% reached the minimum for passing (70% score) and 36% reached 90 -100% score. The above results have founded the

revision and updating of the online course material, as well as a new faculty development strategy that considers particular ethical dilemmas and enrollee characteristics.