
Medical education hampers moral competence development

by Georg Lind

In the early 1980-ies we found in a longitudinal study in Germany that medical education, in contrast to other fields of higher education, does not foster moral competence, but seems to hamper it.

- Lind, G. (2000). Moral regression in medical students and their learning environment. *Revista Brasileira de Educacao Médica*, 24 (3), 24 - 33.

Subsequently, other studies replicated this finding. Moral regression was also found in other studies among medical students in Germany, Brazil, Finland, and Czech Republic.

- Schillinger, Marcia (2006). *Learning environments and moral development: How university education fosters moral judgment competence in Brazil and two German-speaking countries*. Aachen: Shaker-Verlag.
- Gommel, M. & Kessler, H. (2006). *Medical Ethics Seminars, Moral Judgement Competence and Authoritarianism*. Presentation at the annual meeting of the Association for Moral Education in Fribourg, July 2006.
- Slovácková, Birgita (2001). Moral competence and moral attitudes of students at the Medical Faculty of Charles University in Hradec Králové. Univerzity Karlovy v Hradci Králové. In: *Psychiatrie, roc. 5, c. 2, 2001*, p. 74 - 79, clánek puvodní.
- Helkama, K., Uutela, A., Pohjanheimo, E., Salminen, S., Koponen, A., & Rantanen-Väntsi, L. (2003, September). Moral reasoning and values in medical school: a longitudinal study in Finland. *Scandinavian Journal of Educational Research*, 47 (4), 399-411.

Two new publications about studies by Brazilian researchers show the same picture. Medical students in Brazil and in Portugal loose moral competence during their education:

Feitosa, H. & Regor, S. (2012). Competência de juízo moral dos estudantes de Medicina: um estudo piloto. [Moral judgment competence of medical students: a pilot study.] *Brazilian Journal of Medical Education*, 0177, 2012

The full article is available from: http://www.educacaomedica.org.br/artigos/artigo_int.php?id_artigo=1873

Abstract: The authors conducted a cross-sectional short-term study using Lind's Moral Judgment Test (MJT) to compare the moral judgment competence (C-score) among

students in the first and eighth semesters from a medical school in the Northeast region of Brazil. This study also evaluates the influence of such factors as age and gender on moral competence. A difference equal to or greater than 5.0 points (absolute effect-size) on the C-score was considered significant. A regression of moral judgment competence among the students in their eighth semester versus the students in the first semester (C-score: 20.5 and 26.2 points, respectively) was observed. In the analysis of the students' performances in terms of MJT dilemmas, the phenomenon of "moral segmentation" was observed in the both semesters, and the students performed better on the worker's dilemma than on the doctor's dilemma. Among students in the same semester of study, older students had lower C-scores. When comparing performance by gender, there was no significant difference between men's and women's C-scores.

The finding of regression or stagnation in moral competence among the medical students merits deep reflection by those who work with the political-pedagogical projects of medical schools and by the entire faculty to reevaluate and implement changes in the curriculum to adequately address medical students' moral development.

Feitosa, H., Rego, S., Bataglia, P. U., Sancho, K. F. C., Regor, G., & Nunes, R. (2013). Moral judgment competence of medical students: a transcultural study. *Advances in Health Science Education*. DOI 10.1007/s10459-013-9449-5.

Abstract: The authors conducted a cross-sectional short-term study using Lind's Moral Judgment Test (MJT) to compare moral judgment competence (C-score) among students from a medical school in the Northeast region of Brazil and a medical school in the Northern region of Portugal. This study compares the C-scores of groups in the first and eighth semesters of study within each medical school and groups from corresponding semesters between the two medical schools. This study also evaluates the influence of such factors as age and gender on moral competence. A regression of moral judgment competence among the students in their eighth semester versus the students in the first semester of Brazilian medical school ($p < 0.001$) and a stagnation of moral competence among students in their eighth semester versus the first semester students in the Portuguese medical school ($p = 0.06$) were observed. For both the first semester and eighth semester groups, the students in the Portuguese medical school had higher C-scores than the students in the Brazilian medical school. In the analysis of the students' performances in terms of MJT dilemmas, the phenomenon of "moral segmentation" was observed in all of the groups, and the students performed better on the worker's dilemma than on the doctor's dilemma. Among students in the same semester of study, older students had lower C-scores. There was generally no significant difference between men's and women's C-scores.

Table 1 Students' performance by MJT dilemmas (C-Worker and C-Doctor) and the moral judgment competence (C-Score) of the first and eighth semester classes of two medical schools, one in Brazil and the other in Portugal

Variables	University	Semester	N	Mean
C-Score	Brazil	1st	56	25.49
		8th	59	15.03
	Portugal	1st	144	31.31
		8th	165	28.32

(Table adapted by me, GL)

Comment

When we ask a medical doctor for help we hope that he or she will treat us with high medical competence but also with moral competence. How can it than be that medical education hampers instead of fosters moral competence development? Why has medical education such a detrimental effect on moral development everywhere? How can we reverse this trend?

The answer to the first question is suggested by the study of Marcia Schillinger (2006, see above). Medical education like almost no other field of study is characterized by only little, if any, opportunities for responsibility-taking, which seem to be a necessary condition for the development of moral competence. If this competence is not challenged by those opportunities it regresses because, as it seems, the related brain areas (which seems to be the dorso-lateral prefrontal cortex; see Prehn et al., 2011, below), are not used and thus shrink like a muscle shrinks when it is not used for a long time. This explains why many seminars on medical ethics and case discussions do not work. They provide only verbal knowledge but no opportunity for responsibility-taking.

Yet the future is not as bleak as it seems. With the *Konstanz Method of Dilemma-Discussion (KMDD)* it seems to be possible to reverse that trend. Application of the KMDD in the Medical School of Monterrey, Mexico has shown promising results as anecdotal evidence suggests. However this intervention was not done by a fully certified KMDD-Teacher nor has its effects been assessed with a pretest-posttest-study. Intervention studies show that it is possible to foster moral competence in general in higher education with remarkable success (Lind 2009). A new careful scientific evaluation of an intervention study by Aluisio Serodio (Sao Paulo) is on its way (personal communication).

Given the great importance of moral competence in medical profession it would be highly desirable to do more interventions studies with the KMDD and with certified KMDD-Teachers, because only certified KMDD-Teachers guarantee that the method is effective. Otherwise the KMDD demands much less resources than most, if not all, other methods that have been tried out (and did not work). Instead of one or two semesters of teaching, the KMDD requires only 90 minutes during each semester to produce high positive effects.

Georg Lind (2013)

Lind, G. (2009). Favorable learning environments for moral development – A multiple intervention study with nearly 3.000 students in a higher education context. Paper presented at the annual meeting of AERA in San Diego, April 13 - 17, 2009.

Prehn, K., Wartenburger, I., Mériau, K., Scheibe, C., Goodenough, O.R., Villringer, A., van

der Meer, E., & Heekeren, H.R. (2008). Influence of individual differences in moral judgment competence on neural correlates of socio-normative judgments. *Social Cognitive and Affective Neuroscience*. 3(1), 33 - 46.

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