

Title: First steps towards horizontal integration in teaching within a biomedical department

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Introduction:

The initiation of an interdisciplinary module using case study based methodology, in a mixed curriculum in which programs, contents and teaching-learning methodology are independent in each discipline, is challenging. It is also a good diagnostic tool to discover the strengths and weaknesses surrounding curriculum organization and change. During the first year of the medical school curriculum, we designed and implemented a pilot integration module involving the following disciplines: Health Primary Care I, Histology, Embryology, Molecular Biology, Genetics, Anatomy and Normal Images.

Methods:

A pregnant/breastfeeding woman case was prepared and used to trigger learning of content including: General Embryology, Reproductive, Digestive and Immune Systems, Prenatal Control, Family Planning, Breastfeeding and Pregnancy. A core faculty work group was established to: (1) design the logic model for the project; (2) obtain content simultaneity between disciplines; (3) construct integrated interdisciplinary objectives coherent with the assessment of skills, knowledge, group work, written abilities, comprehension and performance of the students. A questionnaire was designed and administered to students to determine perceptions about module goals, organization, assessment and evaluation, teaching/learning sessions, teacher performance, skills acquisition, individual progress, etc.

Results:

The content simultaneity was obtained and the objectives were coherent with the assessment methods. We found out that more students passed the examination (60%) than the normal rate for one course (Histology, Embryology, Molecular Biology and Genetics) (52%), but was lower than the percentage of students who passed Anatomy, Normal Images and Health Primary Care (64%). However, non significant differences were found related to the number of students who passed the modular exam. Moreover, the assessment methods used were more integrated in content, shape and scoring because we assessed skills, attitudes and work group performance in addition to comprehension, memory and content recall. The results of the questionnaire showed the students perceived that: in order to succeed they need to work regularly and continuously; they will use the knowledge and skills obtained during the module; they knew more now about health social aspects; they perceived the examinations were about important and relevant module issues and the group work help them to integrate knowledge and behaviors .

Conclusions:

Our results showed that it is possible to integrate different disciplines with consensus, although it is very difficult to sustain traditional and innovative curriculums at the same time. We concluded that faculty development, involvement and commitment to curricular change, together with a carefully built evaluation system, are essential in order to be successful in applying innovative curricular practices. Even with sub-optimal conditions, the practical experience of the pilot module implementation was a very important step towards curricular integration.

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