

Medicine professors' continuing education about cultural diversity in the context of internationalisation of higher education in Cuba

Abstract

This paper presents a study aimed at training medicine professors about cultural diversity for them to pay attention to this issue in the medicine program, in the context of internationalisation of the medicine school in Cuba. It is confirmed, through an initial exploratory study made at Cienfuegos Medicine School, that the shortcomings in the current training of the medicine program professors show a lack of offers that allow them to pay attention to cultural diversity in the groups of students, mainly in the context of higher education internationalization. For this reason, a new training strategy is proposed for the continuing education of medical professors in the field of cultural diversity. To design this strategy, different theoretical, empirical and statistical methods were used in the research. The strategy takes into account the needs of the context and the teaching process, based on the theory of intercultural education and a set of requirements for continuing education to be aware of the cultural diversity of medicine students. The evaluation of this scientific result by experts showed its relevance and feasibility.

Keywords: continuing education, internationalisation, cultural diversity, medicine professors, training strategy

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Introduction

Continuing education in the Universities of Medical Sciences in Cuba (UMC), must respond to the needs of the context and of the training processes, due to the high responsibility of the professors in the face of the current challenges of Medical Education (EDUMED) such as:

- The process of internationalisation,
- International cooperation
- The orientation towards Primary Health Care (PHC) as a primary aspect and in relation to its approaches and paradigms.

In this sense, it is becoming increasingly necessary for medical professors to know their students, their cultural differences and individual needs in order to be able to respond to them with adequate attention, in response to nowadays society demands to the university, which is based on a perspective of internationalisation in neoliberal and globalised environments.

The characteristics of lifelong learning in different contexts must be framed in pursuit of inclusiveness, the personalisation of training and its obvious relationship with learning environments, crossed by culture, politics, economics, ideology from the local to the global, which is supported by the World Declarations of the United Nations Educational, Scientific and Cultural Organisation (UNESCO).¹⁻⁴

In-service training for medical professors in the field of cultural diversity refers to aspects similar to those mentioned above. In the aforementioned approaches, the author identifies that, as far as the theory analysed so far is concerned, there are insufficiencies in the determination of the requirements for the continuing education of medical professors for the attention to cultural diversity, which is considered to be the gap in the theory that is further developed later in this report.⁵⁻⁹

It should be pointed out that one of the most important aspects to be taken into account in order to achieve attention to cultural diversity is based on the theoretical body of Intercultural Education. Different researchers have worked on this topic, who reflect on critical aspects of the inadequacies of governmental and educational policies that do not prepare all professors and students from different cultures equally in educational processes from different contexts.¹⁰⁻¹⁶

Systematising the theoretical elements in the literature reviewed, as mentioned above, reveals a gap in the theory regarding the requirements to be taken into account in the continuing education of medical professors in order to cater for cultural diversity. These requirements need to be determined and established in order to plan, implement and evaluate continuing education for the attention to cultural diversity from the elements taken into account in the context and the teaching process and their essential relationships corresponding to Intercultural Education as the theoretical core of the content for the continuing education of professors in the field of medicine for the attention to cultural diversity.

Based on the author's experience as a medical teacher, as well as the results of an initial exploratory study in which different methods were used, such as observation, interviews with professors, managers and document review, it was possible to confirm the existence of a series of regularities that are set out below in the problem situation:

- The continuing education of medical professors in the field of cultural diversity is a subject that is insufficiently dealt with in teaching-methodological and scientific-methodological work activities.
- Continuous training for professors of Medicine in cultural diversity is not included in in-service training plans, despite the fact that it is of great importance due to the characteristics of the degree course in Medicine and society's demands on the university to provide solutions to the problems arising from it.

- The medicine program professors state that due to the diversity of economic, religious, and other aspects regarding national students' personal issues, as well as the presence of students from other nationalities, make it necessary to enhance their training in those contents that might help them to deal with the cultural diversity of their students.
- There is limited knowledge about the theoretical foundations that support the attention to cultural diversity and the invariant contents necessary for this purpose, highlighting that there is a coincidence of opinions between managers and professors regarding the need for ongoing training of professors of the Medicine degree for the attention to cultural diversity.

The need of educative attention to the cultural diversity of students and the efforts of the university to support the demands of society in a globalised world is contradictory to the current training of professors that lack any pedagogical training on the topic of intercultural education.

The research is oriented towards the solution of the problem based on the validation of the strategy of continuing education of the professors of the Medicine course for the attention to the cultural diversity, the objective is to propose a continuing education strategy for the professors of the Medicine course about the attention to the students' cultural diversity.

Theoretical level methods

Historical-logical: This method was used to study in depth the origin, development, current status and evolutionary trends of the continuing education of professors in the context of the medical program for the attention to cultural diversity.

Analytical-synthetic: This allowed for a theoretical study of the continuing education of medical professors and the attention to cultural diversity. It was also used in the analysis of the information obtained in the empirical study to carry out the research.

Inductive-deductive: This method made it possible to integrate and make generalising inferences, which in the present research made it possible to reach fundamental conclusions about the continuing education of professors in the context of the medical program for the attention to cultural diversity. This method was also very important in the empirical study.

Systemic-structural method: It was used during the elaboration of the strategy by taking into account its structure as a series of components interrelated with each other and with the environment, with the hierarchical and concordance relations for the achievement of its general objective. It was also taken into account in the general conception of the research process.

Empirical level methods

Observation: this was used in the diagnostic phase to describe the initial situation of continuing education for attention to cultural diversity in the medical course, as well as in the implementation of the strategy.

Interview: to obtain the opinions of the directors of the Medicine course on the ongoing continuing education of professors in the attention to cultural diversity.

Survey: to ascertain the opinions of professors and verify the actual state of the process of in-service training of lecturers to cater for cultural diversity in the Faculty of Medicine.

Document analysis: the different normative documents were analysed to verify the way in which the ongoing training of professors in the Medicine programme is considered in relation to cultural diversity, as well as documents related to postgraduate activity, teaching-methodological work, and the professional development plan, among others.

Methodological triangulation: through the triangulation of methods on the basis of the categories of analysis selected to determine the main regularities that determine the inadequacies and potentialities of the initial state of continuing education on the attention to cultural diversity in medical students.

Expert criteria: The **Delphi Method** is used to validate the feasibility and relevance of the scientific result developed.

Statistical-mathematical methods

Descriptive statistics, absolute and relative frequency, expressed in totals and in hundreds. W. Kendall's statistical test is also used to establish the concordance between the experts, by means of the corresponding hypothesis test belonging to inferential statistics.

Discussion and results

Diagnosis of the initial situation of the training of medical professors for cultural diversity.

The study was carried out on the basis of the fundamental application of empirical methods supported by theoretical methods for the analysis, interpretation of data and generalisation to determine the main facts in order to discover the main insufficiencies and potentialities and to specify the empirical diagnosis that objectively contains the causes of the scientific problem that occurs in the continuing education of the professors of the course of Medicine, for the attention to cultural diversity. The required information was obtained through the analysis of documents, observation, the survey of professors, the interview of directors, the identification of the training needs of the professors and the triangulation of methods.

For this purpose, documents related to the continuing education of university professors, managers, professors, a sample of students and various teaching activities were used as sources of information.

Using Statistical Proportion Sampling to calculate the research sample (n) with the following sampling data.¹⁷

i. The probability of success (p) is equated to the probability of failure (q), $p = q = 0.5$ to obtain the maximum sample, the sampling error selected by the authors was $e = 0.1$.

ii. The formula provided for this Statistical Sampling of Proportions is:

$$n = (N p q) / \{ (N-1) e^2 / 4 + p q \}$$

iii. The value obtained for the sample $n = 82$ teachers of the degree course. The selection of the teachers is done randomly.

In addition, 10 meetings of the first and second year groups were observed, 25 teaching activities in their different organisational forms were observed, in this case academic ones as they were in the first years of the degree course, the directors were interviewed and the professors mentioned were surveyed.

The main results of the empirical methods such as document analysis, interviews to managers, teacher surveys and observations were analysed on the basis of the triangulation of methods and the

following regularities and potentialities derived from the study were expressed.

The following categories of analysis were taken into account as criteria for the application of this method:

- i. The recognition about the insufficiencies that professors have for the attention to cultural diversity according to the fundamental aspects that from the theoretical study that are established, in addition to what was constructed by the author referring to the theoretical deficiencies detected.
- ii. Awareness of the need for ongoing training to deal with cultural diversity according to the current demands and requirements of society for the university and the context of the EDP of the Medicine degree course.
- iii. Contradictions between students, between professors and students in the EDP as a consequence of the lack of knowledge, skills and values, tools and procedures that guide professors in dealing with cultural diversity and mediating conflicts.
- iv. In this sense, the following considerations are presented as results of this methodological triangulation.
- v. Awareness of the need for ongoing training of professors to deal with cultural diversity is adequate, which is shown as a felt need according to the information obtained in the application of the instruments.
- vi. There are contradictions among students and between professors and students in the educational teaching process as a consequence of the lack of knowledge, skills and values that guide professors in dealing with cultural diversity, which has not been taken into account in the ongoing training of professors.
- vii. Weak attention to particular aspects of the affective area of the students, especially in the values in relation to the cultural diversity that is manifested in the group of students, issues that in the documents that should guide the process are not precisely stated.
- viii. Insufficiency in the procedures, methodological and didactic tools of the professors to deal with intercultural conflicts due to the nature of cultural diversity in the Medicine course in accordance with the necessary knowledge, specific skills and values on which attention to cultural diversity is based in this context.
- ix. There is a general lack of knowledge of the theoretical foundations of Intercultural Education related to the attention to cultural diversity and the contents necessary for this purpose, as well as the necessary requirements for the ongoing training of professors.
- x. There are actions aimed at teacher training in a mastery degree program in education (EDUMED) which strengthen the pedagogical foundations of professors, but which expresses limitations with regard to their training for attention to cultural diversity.
- xi. Notwithstanding these shortcomings, there is potential within the teaching staff to work in this direction, the main ones being the following:
- xii. There is a faculty with sufficient experience and general preparation to develop the skills and comply with the value

system related to their own continuing education and professional development in pedagogical issues.

- xiii. The importance of the theory of Intercultural Education as a basis for the attention to cultural diversity is generally recognised, and the empirical work of a group of professors in the solution of intercultural conflicts, a real problem in the EDP of the Medicine degree course, has been demonstrated.
- xiv. The professors have shown motivation and interest in the development of this training on the attention to cultural diversity and recognise its necessity for the development of their teaching work.

The foundation and structuring of the proposal is presented as a scientific result that will provide a solution to the research problem, after the main theoretical enquiries that made it possible to assume the established referents of the object of research and the field of action, as well as the fundamental epistemic gaps implied in the contradiction that sustained the research. All of the above-mentioned made it possible to carry out the empirical enquiries corresponding to the diagnosis carried out on the basis of scientifically documented instruments from the theory, the results of which are summarised in the insufficiencies and potentialities that characterise the initial state of the permanent training of the professors of the degree course in Medicine for the attention to cultural diversity.

In order to assess the designed strategy, feasibility and relevance were taken into account. In this case, feasibility was assumed to be the possibility of being applied in practice; and relevance is related to suitability with respect to social requirements.^{17,18}

The Delphi method was used to validate the results

The steps to be followed were:

Elaboration of criteria to select a group of potential experts.

Application of a survey to calculate the competence coefficient of the experts.

Final selection of experts.

First of all, the level of experience was analysed by means of self-measuring questions in order to determine the level of knowledge of the potential expert.

The knowledge coefficient (Kc) is calculated by means of the individual evaluation of the questionnaire on the topic to be investigated, and the results are expressed as follows

The survey of the personalised level of argumentation of each expert made it possible to evaluate the coefficient of argumentation (Ka) and the sum of the results of the evaluated items.

Each coefficient is evaluated on the unit and the calculation of the coefficient of competence (K comp.) is then applied.

$$K \text{ comp.} = 1/2 (K_a + K_c)$$

Kcomp (0.8, 1) coefficient of proficiency High

Kcomp (0.6, 0.8) coefficient of competence Medium

Kcomp below 0.6 competition coefficient Low

Analogous for Ka and Kc.

When analysing the results, it was determined that, of the 15 experts assessed, 73.3 % (11 experts) had high competence and the rest had medium competence, which is why they were all selected as experts to assess the continuing education strategy for professors of the Medicine course for attention to cultural diversity. Of these, 60% had the scientific degree of Doctor of Science and the remaining 40% had a Master's degree. Of these professors, nine had the main teaching category of tenured professor and the rest were assistant professors. All of them had more than 10 years of teaching experience.

After selecting the group of experts, their criteria and opinions were processed to validate their proposals based on their knowledge, research, experience and studies, among others. For this analysis, the qualitative Delphi method developed by Olaf Helmer and Gordon was applied, based on the systematisation of intuitive assessments by a group of experts to obtain a consensus of opinions.^{19,20}

This method is the systematic use of the judgement of a group of experts to obtain consensus on criteria, which is notable for the fact that the feedback and statistical response of the expert group is anonymous.¹⁷ The 15 selected experts validated the 41 criteria, according to a Likert scale with evaluation ranges: very adequate, quite adequate, adequate, not very adequate and inadequate, values in the range (1, 5). Each expert was given a document with the aspects to be evaluated and the evaluation ranges they could select to validate the proposal for the lifelong learning strategy for attention to cultural diversity.

The aspects to be evaluated by the experts were: concept of the strategy, characteristics, structure with its respective stages, objectives and actions. Several rounds were applied and in each of them the results were statistically analysed, the different elements of the proposed training strategy were taken into account, the experts gave their opinion and suggested modifications to improve it.

The following were calculated: Table of observed frequencies, Table of accumulated frequencies, Table of relative frequencies, Table N - P, Numerical Ray, Kendall's Coefficient analysis which allowed to verify the degree of agreement between the experts (a high value of 0.83).

The results obtained allow us to conclude that the proposed strategy is relevant and feasible, and it was also considered that its rationale and structuring were very appropriate.

The results obtained with the applied instruments show that the strategy fulfills the partial objectives of each stage, the general objective of the strategy, widely considering a very adequate level of satisfaction, the consideration by most of the professors as positive and interesting most of the aspects studied, as well as the positive change of the participating professors, as previously exposed. After the processing of the expert consultation during the second round, the version of the strategy of continuig education for professors of Medicine for the attention to cultural diversity is presented, the final categories of each of the 39 aspects assessed were determined (Table 1 of Observed Frequency is presented).

The cut-off points of the Delphi Method expressed by the experts are obtained in the evaluative categories of the continuing education strategy for professors of medicine for the attention to cultural diversity. Determination of the cut-off points in the second round to experts. Prepared by the author, based on processed data (Figure 1).

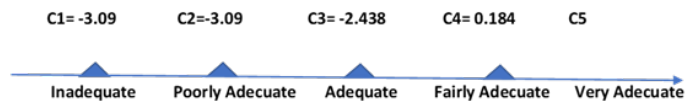


Figure 1 Cut-off points.

The comparison of the N-P calculated by the Method, for each aspect evaluated, allows us to affirm that all aspects were rated in the very adequate category.

The analysis of the non-parametric Kendall's W test allowed us to verify the concordance between the experts (Table 2).

Table 2 W de Kendall

Statistics tests	
N	39
Kendall's W ^a	0,803
Chi-Square	59,405
df	2
Asymp. Sig.	0,000

a. Kendall's Coefficient of Concordance

The test expresses a high level of agreement with Kendall's W of 0.803, which represents 80.3% agreement among the experts, according to the rating scale.

The results obtained allow us to conclude that the proposed strategy is relevant and feasible, and it was also considered that its rationale and structuring were very appropriate.

Conclusion

The theoretical analysis carried out on the ongoing training of professors in the Medicine degree programme for the attention to cultural diversity leads to the conclusion that this should be understood as a significant updating process for life, the contextualisation from the particularities of the educational process of the degree programme, which implies a set of demands to adapt the training of professors to the plurality of student needs.

The diagnosis carried out revealed a group of difficulties in the attention to cultural diversity in the teaching-educational process and a lack of knowledge on the part of the professors of the fundamentals related to attention to cultural diversity in the Medicine course, but the opportunities for their ongoing training do not provide them with the knowledge, skills and values that will enable them to attend to it in the teaching-educational process (PDE).

The strategy for the continuing education of professors in the medical school for the attention to cultural diversity is based on the proposed requirements and other theoretical aspects from the philosophical, sociological, psychological, pedagogical and didactic points of view, and presents several stages with actions that include various organisational forms for the continuing education of professors.

The theoretical validation of the strategy for the continuing education of professors in the Medicine course for the attention to cultural diversity was carried out through the assessment of the experts in two rounds, who considered it feasible and relevant.

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Conflict of interest

There are no conflicts of interest in the authors' collective.

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