

Article

Ethno-education: Health education based on cultural diversity cultural diversity

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Abstract: Introduction: In a multicultural country such as Colombia, ethnoeducation is an important component of health education, because it promotes the quality of life of ethnic minorities based on the community's potential, practices, habits, experiences and approaches that promote overall health awareness. The purpose of this article is to perform a narrative review on the background of ethnoeducation and its impact on health. The development of inter-cultural skills among students in health fields would enable the future professional to perform their roles with adequate cultural relevance, respecting the values, traditions and history of the communities. Topics discussed: Worldwide, ethnoeducation has been highly relevant, and some international organizations have worked on its implementation for decades. In Colombia, several legal and regulatory instruments have been developed to implement ethnoeducation. However, close to 86% of the ethnic populations do not have access to education in accordance with the established principles. The importance of ethnoeducation has been highlighted in several countries in that it has achieved positive results such as a reduction of morbidity and mortality through educational activities that promote health and help prevent diseases. To achieve this, it is essential that the planned activities be integrated into the communities' cultural perceptions. Conclusion: Although local, national and international guidelines have been established, ethnoeducation continues to be a challenge. It is necessary to increase efforts in order for ethnoeducation to achieve the objectives that have been set out from a theoretical perspective.

Keywords: medical education; cultural diversity; health promotion; community participation; delivery of health care; health of indigenous populations

1. Introduction

Ethnic and cultural diversity has created an awareness of the need to manage society's resources through policies for the participation of ethnic and cultural minority groups. Multiculturalism is a systematic and comprehensive response to cultural and ethnic diversity, with an educational, linguistic, economic and social character [1].

According to the World Health Organization (WHO), differences in health and well-being are attributable to the specific circumstances in which "people are born, grow, live, work and age", circumstances known as the "social determinants of health", which include laws, policies, economics, education, living conditions, etc. [2].

Indigenous peoples represent how social inequalities in conjunction with social determinants can negatively affect health. In 2009, the United Nations (UN) published a comprehensive analysis document entitled "The State of the World's Indigenous

Peoples,” the results of this analysis illustrated that the socioeconomic status of indigenous populations in nations and territories globally is substantially lower than that of others living within the same area. Indigenous peoples are less educated than their non-indigenous neighbors and have fewer decent livelihood opportunities available to them [2].

Ethno-education arises to support the constitutional principles that refer to the multicultural nature of the Colombian nation and has its beginnings in 1976 [3,4]. Experiences in the field of indigenous education and Afro-Colombian education find in the educational policy framework a scenario for the implementation of interculturality, as the fundamental principle of this policy that assumes the possibility of educating in accordance with local cultures and in dialogue with the global culture [3].

In a multiracial and multicultural country like Colombia, it is extremely important that physicians have a good understanding of the diversifying elements such as culture, religious convictions, values and attitudes of their patients, before they can proceed to treat their patients with respect and dignity. Ethnoeducation then becomes an important element in medical education, so much so that in a survey of medical students, 54% considered that diversity management is an essential skill to be acquired during medical training [5]. Some experts even consider that medical education should focus on how best to integrate ethnic minority patients into the existing health care framework [6].

Social education for health is proposed as a generator of possibilities that can improve and optimize the conditions of health systems, the professionalization of the agents involved in the socio-health field and the quality of life of people in order to achieve sustainable development of institutions, peoples and communities [7].

Health promotion is an objective of social education, which seeks the transmission of culture to promote quality of life, based on community potentialities, practices, habits, experiences and approaches that promote a global sense of health [7].

Public health policies are committed to improving health systems by improving knowledge management, science and innovation in health, through institutional participation and the dissemination of health based on strategic alliances with academia, and coordination networks between the private sector and civil society [7].

Education plays a primordial role in the cultural control of peoples, although attempts have been made to transform the academic space, there is still a long way to go [8]. Therefore, the objective of this article was to conduct a narrative review on the national and international background of ethnoeducation and its impact on health, based on a literature search and original research articles in pubmed, Science Direct and Scielo during November 2019 and March 2020, with the use of keywords and mesh terms related to medical education, cultural diversity, health promotion, community participation and health care delivery.

2. Subjects covered

2.1. Education and training of human resources and competencies

Most of the literature on ethno-education in Latin America focuses on the analysis of legal frameworks and political potential; very few have delved into the

pedagogical and didactic components. In Colombia these components allow concluding, from the observation of indigenous and Afro-descendant communities where they have been implemented, that education is no longer understood as a tool to destroy their roots and impose standards and values of the dominant culture, but on the contrary, the intention is to redirect education towards the values, traditions and cultural history of ethnic communities [9,10].

Multidisciplinary competencies characterize the ability and willingness of individuals in training and enable them to apply their knowledge in their professional activities. In addition to knowledge, competence should include communication between different disciplines and psychological readiness to solve the problems of professional activity and willingness to gain new knowledge in the process of studying other disciplines [11].

For the proper execution of the pedagogical task, it is important to define the competencies to be acquired by students, an aspect that constitutes a challenge and determines the meaning of teaching [12]. The competencies that students acquire must be in accordance with social and cultural demands, so that they allow the development of learning and the acquisition of new skills and abilities [12], making possible, in the same way, the ability to articulate and integrate both the formal knowledge learned in the academic institution, as well as the personal knowledge that goes hand in hand with life experiences [13]. The development of intercultural competencies in health care students would allow future primary care professionals to perform their role with adequate cultural relevance, assuming the characteristics imposed by the current era both for the relationship with users and for their understanding, as holistic and culturally diverse beings [13].

According to Byram's model of intercultural communicative competences [14], the generation of acquired knowledge is proposed instead of learning, which allows contact with different cultures, including one's own. Intercultural competences are: attitudes in knowing how to be that allow recognizing what one has in order to give way to curiosity and reconfigure subjectivity; and knowledge for understanding information related to other cultures, both internally and externally [4].

According to Villegas and Lucas [15], it is necessary to define the teaching competencies that are required in a multicultural environment to fully achieve the transformation of society, which is the ultimate goal of multicultural education. Teachers should have six main traits: sociocultural awareness; attitude to adequately recognize students with different backgrounds; responsibility and ability to act as an agent of change, to make schools and society more just; identify students closely; and an appropriate teaching style. Acar and Gürol [1] defined three dimensions to identify multicultural competencies of teachers, which are:

- 1) First dimension: cultural competence components (awareness, knowledge, attitude, skills).
- 2) Second dimension: cultural competence contexts (personal, professional, institutional and social).
- 3) Third dimension: cultural competence foci (socio-cultural perspectives, student, teaching and transformation).

Teachers should be proactive, based on a greater sensitivity to training needs, determined by the associated socioeconomic aspects in order to maximize the potential

of human resources, in the context of openness to lifelong learning [16]. Teachers as guides in clinical practice situations or experiences, should establish spaces for reflection on such experiences to encourage individual and collective reflection, including activities aimed at students to strengthen their intercultural competencies. In this way, the creation and implementation of promotion and prevention activities with the active participation of students and the population, and the incorporation of interdisciplinary work in the development of clinical experiences, are encouraged [13].

2.2. International, national and local background

At the global level, ethno-education has been a relevant aspect evidenced in different international normative instruments. The 1948 Universal Declaration of Human Rights establishes that education enables the full development of the individual and the promotion of peace. ILO Convention No.169 addresses the problem of education for indigenous peoples, and expresses the importance of adapting educational programs to the needs of the population, with the aim of providing general knowledge that will enable these communities to participate fully and on equal terms in their ethnic group and their country [17].

In addition, worldwide entities such as the United Nations Educational, Scientific and Cultural Organization (UNESCO) have been working for more than 20 years to introduce and implement ethno-education as a key aspect of peace education, providing various guidelines in which the languages, histories and cultures of minorities are taught, because cultural diversity is a great treasure for humanity, and this can only be promoted to the extent that the fulfillment of their human rights is guaranteed [14]. In turn, UNESCO established three principles of ethno-education [17]:

- 1) “It respects the cultural identity of the learner by providing everyone with a quality education that is culturally appropriate and adapted to their culture.”
- 2) “It teaches each learner the knowledge, attitudes and cultural competencies necessary to enable him or her to participate fully and actively in society.”
- 3) “It teaches all learners the knowledge, attitudes and cultural competencies that enable them to contribute to respect, understanding and solidarity among individuals, between ethnic, social, cultural and religious groups and between nations.”

In Colombia, a country with great cultural diversity, ethno-education is both a necessity and a great challenge; therefore, throughout history, normative instruments have been created in favor and against it [18] (**Figure 1**).

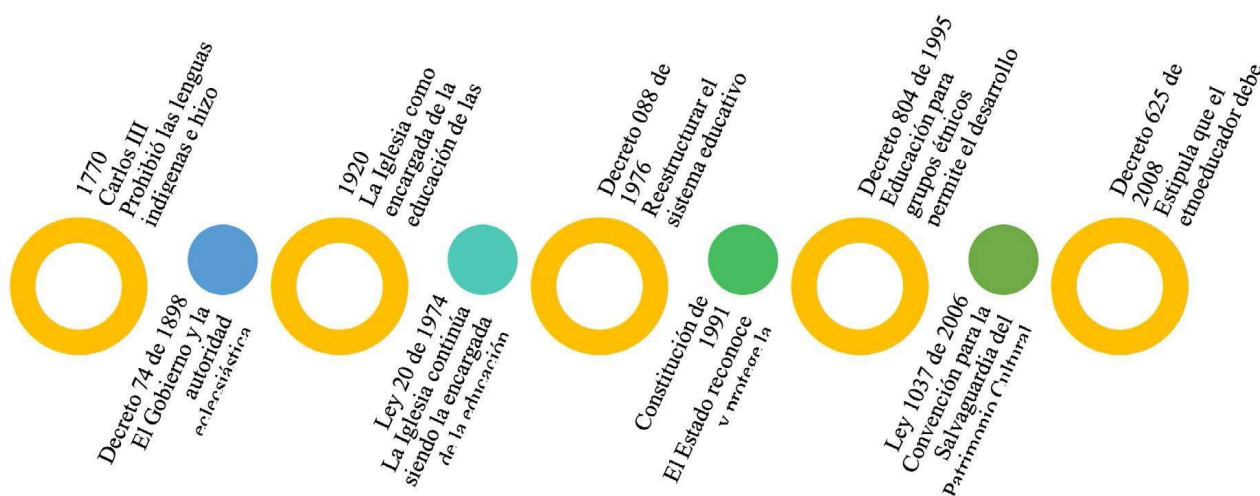


Figure 1. Timeline with some of Colombia’s regulatory instruments.

Source: Arbeláez Jiménez J, Vélez Posada P. Ethno-education in Colombia: an indigenous perspective [18].

1770
 Charles III
 He banned indigenous languages and made
 Decree 74 of 1898
 The Government and the implementing authority
 The Church as the one in charge of the education of girls and boys.
 Law 20 of 1974
 The Church continues to be in charge of education
 Decree 088 of 1976
 Restructuring the education system
 Constitution of 1991
 The State recognizes and progege Ia
 Decree 804 of 1995
 Education for ethnic groups supports development
 Law 1037 of 2006
 Convention for the Safeguarding of the Cultural Patrimnin
 Decree 625 of 2008
 It stipulates that the ethnoeducator must
 Highly vascularized gluteal lesion with multiple large afferent vessels without
 early venous opacification.

In order to favor the approach to the health of ethnic groups, in which health care is always carried out with respect and knowledge of their culture, the country has opted for the education of medical personnel. One of the courses available, totally free of charge, can be found on the SOFIA PLUS platform, the educational offer portal of the National Learning Service (SENA), called “Health care with ethnic relevance”, in which, in 40 h, education is provided on regulations, the traditional medical system of ethnic groups and its relationship with Western medicine, communication and consultation with ethnic groups, health care processes, among others [19].

Likewise, because language can represent a barrier in health education for ethnic

groups, the Piraguas group, a social projection group of the Universidad Pontificia Bolivariana of Medellín, decided to publish a book called *Formación en hábitos saludables bajo el modelo de prevención de enfermedades*, written in Spanish and the Emberá language, to facilitate understanding by ethnic groups. In addition, it has illustrations that represent the indigenous groups, all with the purpose of training in healthy habits that reduce the frequency of frequent infectious and contagious diseases [20,21].

Unfortunately, in spite of all the regulations for the implementation of ethno-education in the country, about 86% of ethnic populations do not have access to education that complies with the principles established by UNESCO as previously stated.

With regard to Colombian regulations governing ethno-education, Article 7 of the 1991 Political Constitution of Colombia recognizes and protects the ethnic and cultural diversity of the Nation; on the other hand, the Ministry of National Education is responsible for ensuring support for the education of ethnic groups, who, in turn, according to Chapter 3 of Law 115 of 1994, may propose educational models that are in line with their lifestyle and interests, with the aim of reducing inequity or discrimination of these communities [22–24]. In addition, according to Decree 1122 of 1998, knowledge, practices, values and skills that help promote interculturality and integration of vulnerable communities must be taught in all educational institutions [25].

The lines to support these processes act according to several mechanisms, among which stand out the maintenance of the mother tongue as the main foundation, the facilitation of training of specific educators in this area, personalized consultancies for educational development, the regulation of the intervention of international organizations in the ethno-educational process, and the updating and research for ethno-educators [24].

The department of Huila, in its development plan “The path is education” for the period 2016–2019, committed to the acquisition of skills and participation in education of different populations, betting on the improvement of ethno-education so that all people have access to and successfully remain in the education system [26].

On the other hand, in Ipiales, Nariño, through Decree 176 of 2016, the Technical Roundtable for Agreement for the Strengthening of the Educational Policy of Indigenous Peoples is created, where agreements and actions are built for the benefit of indigenous communities in ethno-educational matters [27].

In the department of La Guajira, the development plan “A New Time: 2017–2019” describes ethno-education as a permanent acquisition of knowledge, discipline and creativity, all this through digital and linguistic literacy, but without leaving aside (as stated in Law 115 of 1994) Wayuunaiki, their mother tongue [28].

In Medellín, there are regulatory instruments at the local level with the objective of introducing ethno-education to the teaching process at various levels, among them we find Agreement 085 of 2018, in which ethno-education is institutionalized for the city, as well as in Agreement No 128 of 2018 [29,30]. In turn, in the city’s previous Development Plan, i.e., 2016–2019, the Ethnic Diversity Program was implemented, with the purpose of promoting the social inclusion of ethnic groups always promoting equity and respect for culture [31].

2.3. Importance of education for all

Inclusion in education continues to be an abstract concept because, depending on the geographical and cultural context, its objective is to integrate students with disabilities into the educational system or to adapt the educational system to the diversity of students. What is clear is that it should be conceived as a constant search for a solution to diversity, minimization and elimination of barriers of any kind, and it should aim at good school results [32].

Education that aims to respect and consider cultural diversity is a challenge for everyone, especially for teachers, as it requires a special emphasis on interpersonal and sociocultural interactions. To accomplish this, different strategies such as dialogues, similarities or differences between people's knowledge have been proposed to create connections between them [33].

According to Valcarce Fernández, schools that are or intend to be inclusive must meet five requirements: flexibility, informality, horizontality, in addition to being participatory and competent. The main objective of these characteristics is to embrace student diversity in order to subsequently extend the results outside the school, i.e., to the community and later to society [34].

The importance of education for the entire population has been evidenced in countries such as Mexico, where the school results of children participating in intercultural education programs have improved. In addition, Peru, Ecuador and Bolivia have achieved growth in terms of rights and social benefits through education, thus demonstrating the preponderance of education [35].

Ethno-education has been implemented in several countries, Colombia among them, since the indigenous populations have advanced projects based on the vindication and defense of their own education. The indigenous people recognize the importance and need to educate themselves; therefore, the creation of flexible curricula adapted to the different ethnic populations is the result of the mobilization of these groups of people [36]. In order to achieve inclusive education, the context, experience and local needs must be identified, and it is essential to have access to quality education with equal opportunities for all. This should guide all participants, both teachers and students, to turn their practices into evidence of teamwork, but also personalized guidance to achieve positive results [37].

Inclusive education allows the adequate educational development of people belonging to different population groups such as the disabled, indigenous communities, Afro-descendants, pregnant women and demobilized members of illegal groups, among others [37,38]. In addition, ethnoeducation is currently an open door to involve all people in new experiences and humanize social relations, empowering individuals and, therefore, society [39].

2.4. Ethno-education, health promotion and disease prevention

Since 1986, the Ottawa International Conference defined health promotion as the process of empowering individuals and communities to increase control over the determinants of health, and thus improve their health [40]. Likewise, health promotion has also been defined as the process of educating people to increase their control over their health and improve it significantly [41,42]. Prevention, on the other hand, refers

to a complete analysis of the individual and the context in which he/she develops, in order to recognize those risk factors that he/she has and those that may develop in the future and that in a certain way favor the appearance of conditions that affect his/her health [43].

The Pan American Health Organization (PAHO) proposes three mechanisms through which health promotion can be fostered [42,44]:

- 1) Self-care, i.e., the actions that the person performs on his or her own behalf for the benefit of his or her health.
- 2) The mutual or communal help that people provide to each other in accordance with the context in which they live.
- 3) The creation of healthy environments that favor health through education, such as the creation of healthy schools that become empowering scenarios for the training of the population, in which health education and health promotion are pedagogical options for human development.

Currently, health promotion has become a practice that involves aspects such as education, training, research, legislation, policy coordination and community development, so that today there are many reported experiences that integrate indigenous communities in the processes of promotion and prevention, such as the case of the Inuit youth in the territory of Nunavut (Canada), who took ownership of a suicide prevention project in their community, as well as the Navajo Nation in the United States, with community gardens for the promotion and prevention of diabetes and obesity through good eating habits [45–47]. The impact of the community garden experience in the Navajo Nation is under evaluation by the authors; however, these types of health education interventions have shown positive results in terms of fruit and vegetable consumption in other populations [47]. It is crucial that these types of interventions and processes are integrated into the cultural perceptions of the communities, due to the impact of these perceptions on the behavior of individuals and the interaction with the intervention [48].

In relation to issues dedicated to mortality reduction and suicide prevention, Harlow et al. identified nine education programs aimed at indigenous youth in the United States and Australia. These programs were characterized by their adaptation to indigenous culture and by the use of suicide education strategies, leadership training and community training [49]. This systematic review reports as a result of these programs less suicidal ideation and gestures after the intervention; however, studies with more controlled measurements are required, since there are few studies with randomized quantitative methodology that control the outcomes [49].

A review by Araujo et al. Found 22 studies conducted in the United States and Canada on various types of health interventions in indigenous populations, with moderate or high quality evidence that reported effectiveness of medical education strategies to prevent depression, childhood caries, and the use of child safety seats [50].

Thus, the need for holistic, community-based, family- and youth-centered approaches to designing promotion and prevention programs has been emphasized in order to have an impact on communities [51]. This can be achieved through the community-based participatory research (CBPR) strategy, which has been shown to strengthen research capacity and build links between researchers and communities [52]. CBPR strategies seek to foster the engagement and participation of communities

through collaborative dynamics with researchers taking into account the available evidence for interventions [52].

2.5. Education and morbidity and mortality

Education has become a tool to achieve health, especially when it is developed through the participation of the people, even turning into health promotion [45]. The participation of ethnic communities should be motivated by a continuous improvement of the quality of health and a reduction of morbidity and mortality [45].

Education has a direct effect on some determinants of mortality; child mortality, for example, is influenced by the beliefs and values that the mother has about caring for her child and her behavior in the face of her illnesses [53]. According to PAHO statistics, mothers with lower levels of schooling and their children have less favorable health outcomes than mothers with higher levels of education. The infant mortality rate among babies under one year of age whose mothers have a low level of education and the children of those with secondary or higher education is seven times higher in El Salvador, three times higher in Bolivia, Guatemala, Colombia and the Dominican Republic, and twice as high in Peru [54].

Referring specifically to indigenous communities, a study on lifestyle interventions in Native American peoples in the United States concluded that moderate to mild weight reduction was associated with a substantial reduction in the long-term risk of diabetes, reporting a 64% reduction (95% CI 54 to 72) in those with a loss >5% compared with those who lost <3% of body weight [55]. On the other hand, an impact of this type of educational approaches has also been seen in trauma morbimortality in these populations: injuries from motor vehicle accidents have been reduced in these populations from evidence-based educational strategies applied to the communities [56].

Diabetes continues to be a disease that brings with it a high burden of morbidity and mortality and indigenous populations are not exempt from this. Under this premise, in the United States an indigenous health service proposed a program that included the delivery of supplies for glycemia monitoring, referral to specialists and continuous education to indigenous people with this pathology through multidisciplinary support teams, achieving a decrease of one unit in the levels of glycosylated hemoglobin and a reduction of approximately 60% in the incidence of amputations [50,57].

Likewise, another study showed an impact on the improvement of diet quality in adolescents from an Alaskan Native community by carrying out educational interventions in the community's schools, while at the same time allowing these adolescents to connect with the culinary traditions of their human group [58]. Another example can be found in Mexico, where an educational program on sexual and reproductive health applied to indigenous women and marginalized adolescents showed that both groups significantly increased their short-term knowledge, behaviors and attitudes regarding reproductive health and condom use, demonstrating the effectiveness of implementing educational programs aimed at certain population groups [59,60].

Currently, ethno-education strategies continue to be first-hand tools for mortality reduction in indigenous communities. Since 2015, PAHO/WHO, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), and the World Food Program (WFP), joined forces to develop an action plan that aims to contribute to the reduction of maternal and neonatal mortality in indigenous communities in Colombia, developing workshops associated with pregnancy, childbirth, postpartum, and newborn care [61].

3. Conclusions

Although there are many guidelines at local, national and international level that support ethnoeducation, this continues to be a challenge for the different actors in the educational, social and health sectors, since although there have been attempts to transform the academic space, there is still a long way to go. This is because it requires a very good communication between the different disciplines and the psychological preparation to solve the problems of professional activity and the willingness to obtain new knowledge in the process of studying other disciplines. However, in the education and training of human resources, intercultural competencies in health care students are not part of the mandatory curriculum. Due to the great positive impact that can be achieved with ethnoeducation in health, it is necessary to increase efforts so that it achieves the objectives that are set out from the theoretical point of view, since in practice they are still vague.

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