

Global Health Education For Medical Students In Italy

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Abstract

Background: Global health education (GHE) in Italy has spread since the first decade of 21st century. The presence of global health (GH) courses in Italy was monitored from 2007 to 2013. In 2019, a new survey was proposed to assess the availability of educational opportunities in Italian medical schools.

Methods: An online survey was carried out using a questionnaire administered to a network of interested individuals, with different roles in the academic world: students, professors, and members of the Italian Network for Global Health Education. The features of courses were analysed through a score.

Results: A total of 61 responses were received from affiliates of 33 of the 44 medical schools in Italy. The national mean of GH courses for each faculty was 1.2, reflecting an increase from 2007. The courses increased nationwide, resulting in a dispersed GHE presence in northern, central and southern Italy. One of the most critical points is related to the nature of “elective” courses, which are not mandatory in the curricula: enrollees tend to be students genuinely interested in GH issues. Some experiences of community and service-learning experiences, referred to as GH gyms, were also detected at national and international levels.

Conclusions: GHE is spreading in Italy, coherently with the vision of the Italian Network for Global Health Education. Although progress has been made to disperse GH courses around the country, more academic commitment is needed to insert GH in the mandatory curricula of medical schools and other health faculties.

Background

In the last two decades Global Health Education (GHE) spread in Europe and around the world, as an increasing number of scientific articles have shown. (1–9) Surveys on global health educational opportunities conducted in several countries offer insights into international developments in GHE early in the 21st century.

In 2005–2006 a survey was conducted in Canada, which showed that, despite both the strong, growing demand from medical students and the changing societal forces that call for better global health training, Canadian medical school curricula were not well positioned to address these needs. (10)

In 2007, Rowson and colleagues carried out a survey of medical schools across the world in an effort to analyse the teaching of global health. Results indicated that the frequency of teaching GH was rising in prominence, particularly through global health elective/exchange programmes. Rowson et al. also found an increase in the teaching of subjects such as globalization and health, as well as international comparison of health systems. Their findings indicated that global health teaching was moving away from the previous focus on tropical medicine and towards issues of more global relevance. (11)

In 2013, Khan and colleagues published a review of the state of GHE in US medical schools and elaborated recommendations for wider inclusion of GH in medical education. (12)

A survey on GHE in Sweden from 2000 to 2013 showed that most Swedish medical schools did not have GHE as part of their medical school curriculum and recommended strengthening future health professionals' education with arguments of GH. (13)

In 2013, Harmer and colleagues carried out a survey of undergraduate and postgraduate GHE programmes and courses in the U.K., and found that 15 universities offered a total of 25 postgraduate and six undergraduate GH degree programmes. The authors called for a more critical reflection on GH curricula, the evaluation of the desired profile of participants and the necessity of equity of access. (14)

In 2016, an analysis of capacity, needs and barriers of GHE in Germany was made by Kaffes and colleagues. The study demonstrated the need for a more systematic GHE in the country, which, according to the authors, was impeded mainly by a lack of institutional priority and structure. GH educators should engage in a debate on GH curricula with a focus on core competencies, an interdisciplinary approach and best teaching formats. (15)

In Canada, in the same year, an analysis of the offerings of GHE underlined the presence of encouraging practices together with the existence of areas for improvement, which included the selection of students and the training formats (16)

Outside of Europe, a description of the landscape in India in 2017 showed fragmented delivery and a lack of focus on GHE at undergraduate and postgraduate levels, with the need to build greater interest among medical professionals. (17)

Velden and colleagues gave a brief overview of GHE in Netherlands in 2017. The research concluded that all eight university medical centres had incorporated GH aspects in their curricula and also offered specific GH courses. (18)

In 2017, Hau and colleagues published a systematic literature review of GH training among U.S. residency specialties showed wide disparities, with fewer opportunities among psychiatry and surgical residency specialties, and greater opportunities among medical residency specialties. (19)

In the U.K., Clarke and colleagues recently examined GH teaching in medical schools, and suggested "a global health SSC should be available to all students to provide the opportunity of further in-depth study for those who wish to advance their knowledge and skills in the area." (20)

In Italy, GHE began to spread in the first years of 21st century, and has since received important stimulus from the European project "Equal opportunities for health", coordinated by the NGO Doctors with Africa CUAMM, with headquarters in Padua, Italy. Before this project, few Italian universities offered courses in this field. In 2010, the project led to the development of the Italian Network for Global Health Education (INGHE, RIISG in the Italian language), a network of universities, scientific societies, non-governmental

organisations and medical students' associations interested in the promotion of GHE at undergraduate and postgraduate levels. (21; 22) INGHE's members first agreed to a shared definition of global health (GH), then they defined the main objectives and contents of a GH course, the didactic methodologies that should be used, and the instruments for the evaluation of courses. At the end of 2014, INGHE decided to elaborate its reflections concerning GHE and medical education; a consensus process led to the development of the recently published paper 'Medical education: an Italian contribution to the discussion on global health education'. (23)

From 2007 to 2013, members of INGHE conducted four surveys to evaluate the availability of educational opportunities in Italian Health Faculties. (24) There was a pause in monitoring after the 2012–2013 academic year. Then, in 2019, INGHE proposed a new survey to assess the GH courses and educational opportunities offered in Italy in the 2018–2019 academic year.

Methods

The questionnaire elaborated from the project "Equal opportunities for health" was transformed into an online form and a section regarding GH gyms was added. The questionnaire investigated the main contents of courses, the didactic methodologies, the evaluation system, the availability of study material for students, the number of participants, the type of course (mandatory or elective), the possible number of university credits available, and the presence of GH gyms in the faculties. The survey was distributed through INGHE, through the Secretariat of the Italian Medical Students (SISM) - a student association which is present in all Medical Faculties in Italy and which is part of the INGHE - and through the National Permanent Conference of the Presidents of Academic Degree Courses in Medicine.

A quantitative analysis of GH courses and their geographical distribution was made: the territorial subdivision proposed by the previous study (Bruno 2011), taken from the Italian National Institute of Statistics, was used to compare the results.

Two different scores were used to describe the courses: the first score (from 0 to 5) is the same used by Bruno (2011) and others; the second score (from 0 to 10) was created to describe the courses in a more detailed way. The two scores are described in Table 1.

With the first score, the courses were divided in low level (≤ 1); medium level (2–3); high level (≥ 4).

With the second score, the courses have been divided in low level (≤ 3), medium-low level (4-5.5), medium-high level (6-7.5) and high level (≥ 8).

Table 1. Description of scores used for courses evaluation

Score 1	Program	No program or no argument related with INGHE definition	0	Score 2
		At least 1 argument of the INGHE definition	1	
	Didactic Methodologies	Lecture-style lessons	0	
		Interactive methodologies	1	
	Length of the course	Less than (or equal to) three hours	0	
		More than three hours	1	
	University credits	Without credits (no recognition from the faculty)	0	
		With credits	1	
	Multiprofessional course	Closed to other faculties	0	
		Open to other faculties	1	
	Type of course	Elective	0	
		Mandatory	1	
	Presence of a referring person inside university	No	0	
		Yes	1	
	Presence of a pre-set limited number of participants	No	0	
		Yes, more than or equal to 80 people ²	0.5	
		Yes, less than 80 people	1	
	Evaluation system	None	0	
		Evaluation of appreciation OR of knowledge	0.5	
		Evaluation of appreciation AND of knowledge	1	
	Availability of study material	No	0	
		Yes	1	

Results

A total of 61 answered questionnaires were returned in the period from September 2019 to February 2020: 20 responses were from students, 22 from the nongovernmental organization Doctors with Africa CUAMM, 17 from people who work within universities, two from another nongovernmental organization, and one from a non-medical faculty member). From a total of 44 medical schools present in Italy, 33 (75%) were reached through the questionnaire. A total of 38 GH courses were individuated, of which four were made in May-June 2018, thus they relate to the previous academic year. Seven of the 38 courses (18.4%) belonged to formal programs of mandatory courses; 31 courses (81.6%) were elective, with a medium length of 9.5 hours (range from 2 to 24 hours). Concerning geographical distribution, 9 (23.7%) courses were in the south, 9 (23.7%) in the centre and 20 (52.6%) in the north of Italy.

Of the 38 courses, 35 (92%) were offered to medical students, of which 26 (68%) were offered exclusively to medical students, and 9 (24%) were open also to other degrees or faculties. The other three courses, all in northern Italy, were offered to students of economy, sociology and nursing.

The national mean of GH courses offered over the total number of medical schools in Italy is 0.79 (with 0.89 in the north, 0.81 in the central region, 0.64 in the south). The national mean of GH courses over the

medical schools reached through the questionnaire was 1.1 (with a standard deviation of 0.87) (see Table 2)

Table 2
Mean and standard deviation of GH courses in Italy for medical schools reached through the questionnaire, divided for geographical distribution

	North	Centre	South	National
2007–2010	1.24 (1.53)	0.57 (0.51)	0.35 (0.79)	0.79 (1.20)
2009–2010	1.81 (1.38)	0.87 (0.35)	0.33 (0.65)	1.11 (1.18)
2018–2019	1.13 (0.64)	1.29 (1.11)	0.75 (0.97)	1.1 (0.87)

Ten courses had a limited number of participants (with a range from 15 to 250), and the average number of participants was 83 people. For what concern didactic methodologies, more than 55% of courses had a percentage of lecture-style instruction higher than 50%.

Ten courses made the evaluation of knowledge (4 mandatory and 6 electives) and 12 courses made the evaluation of appreciation.

According to Score 1 (see Table 1), the distribution of courses in the different region is shown in Table 3.

Table 3
Distribution of courses according to Score 1

	LOW	MEDIUM	HIGH	TOTAL
South	0	2 (22.2%)	7 (77.7%)	9
Centre	0	5 (55.5%)	4 (44.4%)	9
North	0	11 (55%)	9 (45%)	20
Italy	0	18 (47.4%)	20 (52.6%)	38

According to Score 2, the distribution of courses in the different region is shown in Table 4

Table 4
Distribution of courses according to Score 2

	LOW (≤ 3)	MEDIUM LOW (4–5,5)	MEDIUM HIGH (6–7,5)	HIGH (≥ 8)	TOTAL
South	3 (33.3%)	4 (44.4%)	2 (22.2%)	0	9
Centre	1 (11.1%)	4 (44.4%)	3 (33.3%)	1 (11.1%)	9
North	9 (45%)	2 (10%)	4 (20%)	5 (25%)	20
Italy	13 (34.2%)	10 (26.3%)	9 (23.7%)	6 (15.8%)	38

For every scored category listed in Table 1, the authors analysed the mean value for the 38 GH courses. From this analysis, it emerges that the most critic points are the limited access for multiprofessionals (mean value of 0.26, where the majority of courses are offered only to medical students), the type of course (mean value of 0.18, where the majority of courses are elective), the pre-set limited number (mean value of 0.2, where the majority of courses have a number of participants higher than 80) and evaluation system (mean value of 0.29, where the majority of courses don't have an evaluation system).

For what concerns GH gyms, 18 answers referred to some national and international experiences. GH gyms at the national level included:

- Internship of medical students in Caritas Medical Centre, Rome
- Internship of medical students and students of other health professions in the field of "Health in Prison" in Rome
- Internship of medical students and students of other health professions in the reality if asylum seekers and refugees
- Internship of medical students in prison in Milan
- Internship in medical centre for homeless in Varese
- A national course on global health organized by medical students for other medical students "Laboratorio di mondialità" (World Health Laboratory)

GH gyms at the international level included:

- Experiences for medical students organized by "Doctors with Africa CUAMM" in collaboration with the Secretariat of the Italian Medical Students (SISM) in Wolisso, Ethiopia and Tosamaganga, Tanzania
- Experiences for residents offered by "Doctors with Africa CUAMM"
- International experiences offered in Milan and Varese in collaboration with Non-Governmental associations

Discussions

After some years a new survey of GH courses and educational experiences was necessary to assess the situation of GHE in Italy. The results of the survey show that GH courses are present in different universities in Italy, and they are increasing (from a mean of 0.79 courses per medical school in 2007–2010, to 1.2 courses per medical school in 2018–2019). There is also an important reduction in the gap between the north, central region and south of Italy: courses have recently spread throughout the whole country. Another important aspect of GHE in Italy, which is coherent with the vision of GH given by INGHE, is the involvement of students and of non-governmental organizations (especially Doctors with Africa CUAMM) in the organization of courses. The bottom-up approach was a specific characteristic of the work of INGHE and the authors believe it is a very important way to continue the spread of GHE.

Another important point is that of the GH gym: the survey shows the presence of different types of offers for students who want to make an experience in the field, both at national or international levels. The main shortcoming is related with the fact that those experiences are limited only to few medical schools, except those offered by Doctors with Africa CUAMM, which have the potential to reach all medical students.

Some limits of Italian GHE experiences emerge from the analysis of the two scores, especially from Score 2. It shows the critical aspects where a commitment is needed to improve the offer of GHE. The most problematic aspect is related with the type of courses: GH courses are mainly electives and are not recognised as mandatory. Other problems include the frequent absence of an evaluation system, and the lack of access to GHE by multiprofessionals since the courses are often offered only to medical students.

Limitations of the study relate to the lack of information for 11 Italian medical schools and with the limited responses from university staff (the authors received 72% of responses from students and NGOs). This could be interpreted as evidence that some academic professionals who were invited to participate were not committed to furthering the understanding of GHE.

Conclusions

GHE has continued to spread in Italy since 2007. The number of GH courses has increased throughout the country, coherently with the vision of INGHE. Some work has been done, but more work is needed to insert GH education in the mandatory curricula of medical schools. This article helps to quantify the current situation of GHE at the national level in Italy. The authors recognise the importance of GHE and propose to insert the main themes related with GH (social determinants of health, inequities in health, globalization and health, migration and health, international health cooperation) in the mandatory curricula of medical schools. The relevance of GHE is more relevant than ever, especially considering the challenges related to the COVID-19 pandemic, during which inequities in health between different populations are once again evident and demonstrated (25–29). The authors hope that this survey, together with other articles which are already published or which forthcoming, could give an important contribution to the debate on GHE in Italy.

Abbreviations

- GH
- global health
- GHE
- global health education
- INGHE
- Italian Network for Global Health Education

Declarations

Ethics approval and consent to participate

The Ethics Committee of Sapienza University of Rome was informed about the study. Each participant gave written informed consent to take part in the survey and to share data.

Consent for publication

Participants provided informed consent.

Availability of data and materials

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

GC, GT and MM conceptualized and designed the study. GC collected and analysed the data. GC, GT, VC, AR and MM discussed the results. All authors read and approved the final manuscript.

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