

# Production of Knowledge in the Master's Program in Collective Health of the Faculty of Nursing at Universidad de Antioquia, 1996-2013

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## Production of Knowledge in the Master's Program in Collective Health of the Faculty of Nursing at Universidad de Antioquia, 1996-2013

**Objective.** This work sought to characterize the scientific production of the degree works in the Master's in Collective Health (MCH) of the Faculty of Nursing at Universidad de Antioquia, during the period from 1996 to 2013. **Methodology.** Ours was a descriptive, observational study, based on documentary research and content analysis. The work analyzed the degree works presented in the MCH since 1996 until 2013, reported in the library of the Faculty of Nursing, and the scientific articles published. These were reviewed manually using an instrument containing the variables of the characteristics of the works and articles. **Results.** Some 51 degree works were included, corresponding to eight cohorts from the Master's in which 65 master's students have graduated and 61 professors have participated as counselors. The most common themes have been Gender and Health (27%) and Food and Nutrition Safety (16%). The most frequent populations object of study were women (14%) and population groups and/or community (14%). The methodologies used have been 90.2% qualitative, 3.9% quantitative, and 5.9% mixed. A total of 52.9% of the degree works were published as articles in scientific journals; of these, 46.49% corresponded to A2 journals, according to the classification by COLCIENCIAS. **Conclusion.** The characteristics of the degree works show increased dissemination in scientific journals, as well as diversification in the populations object of study and progress in the dissemination of the knowledge generated in the MCH, thus, contributing to progress in collective health in national and international settings.

**Key words:** bibliometric indicators; periodicals; journal article.

## Producción de conocimiento en la Maestría en Salud Colectiva de la Facultad de Enfermería de la Universidad de Antioquia. 1996-2013

**Objetivo.** Caracterizar la producción científica de los trabajos de grado de la Maestría en Salud Colectiva (MSC) de la Facultad de Enfermería de la Universidad de Antioquia, en el periodo 1996-

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2013. **Metodología.** Estudio observacional, descriptivo, fundamentado en la investigación documental y el análisis de contenido. Se analizaron los trabajos de grado sustentados en la MSC desde 1996 hasta 2013 reportados en la biblioteca de la Facultad de Enfermería y los artículos científicos publicados. Se revisaron manualmente y se utilizó un instrumento que contenía las variables de las características de los trabajos y artículos. **Resultados.** Se incluyeron 51 trabajos de grado, correspondientes a ocho cohortes de la Maestría; en esta han sido graduados 65 magísteres y han participado 61 profesores como orientadores. Las temáticas más abordadas han sido Género y Salud (27%), y Seguridad Alimentaria y Nutricional (16%). Las poblaciones objeto de estudio más frecuentes fueron mujeres (14%) y grupos poblacionales y/o comunidad (14%). Las metodologías utilizadas han sido 90.2% cualitativas, 3.9% cuantitativa y 5.9% mixta. El 52.9% de los trabajos de grado se publicó como artículo en revistas científicas; de estos el 46.49% correspondió a revistas A2 según la clasificación de COLCIENCIAS. **Conclusión.** Las características de los trabajos de grado muestran un aumento en la difusión en revistas científicas, así como diversificación en las poblaciones objeto de estudio y avances en la difusión del conocimiento generado en la MSC, contribuyendo de esta forma al avance de la salud colectiva, tanto en el ámbito nacional como internacional.

**Palabras clave:** indicadores bibliométricos; publicaciones periódicas; artículo de revista.

### **Produção de conhecimento no Mestrado em Saúde Coletiva da Faculdade de Enfermagem da Universidade de Antioquia. 1996-2013**

**Objetivo.** Caracterizar a produção científica dos trabalhos de grau da Mestrado em Saúde Coletiva (MSC) da Faculdade de Enfermagem da Universidade de Antioquia, no período 1996-2013. **Metodologia.** Estudo observacional, descritivo, fundamentado na investigação documental e a análise de conteúdo. Analisaram-se os trabalhos de grau sustentados na MSC desde 1996 até 2013 reportados na biblioteca da Faculdade de Enfermagem e os artigos científicos publicados. Revisaram-se manualmente e se utilizou um instrumento que continha as variáveis das características dos trabalhos e artigos. **Resultados.** Incluíram-se 51 trabalhos de grau, correspondentes a oito séries do Mestrado; nesta foram graduados 65 magísteres e participaram 61 professores como orientadores. As temáticas mais abordadas foram Gênero e Saúde (27%), e Segurança Alimentar e Nutricional (16%). As populações objeto de estudo mais frequentes foram mulheres (14%) e grupos populacionais e/ou comunidade (14%). As metodologias utilizadas foram 90.2% qualitativas, 3.9% quantitativa e 5.9% mista. 52.9% dos trabalhos de grau se publicou como artigo em revistas científicas; destes 46.49% correspondeu a revistas A2 segundo a classificação de COLCIENCIAS. **Conclusão.** As características dos trabalhos de grau mostram um aumento na difusão em revistas científicas, bem como diversificação nas populações objeto de estudo e avanços na difusão do conhecimento gerado na MSC, contribuindo desta forma ao avanço da saúde coletiva, tanto no âmbito nacional como internacional.

**Palavras chaves:** indicadores bibliométricos; publicações periódicas; artigo de revista.

## Introduction

Since the 1970s, collective health has been constituted within a field of knowledge and a practice setting on the object "health" in which different disciplines operate that contemplate the social practice from different angles.<sup>1,2</sup> The Research Seminar Program of the MCH mentions that collective health deals with individual and collective health problems from a critical-analytic

perspective, which seeks to surpass knowledge and traditional health practices, focused on the biomedical model. Silva and Almeida<sup>3</sup> define it as "an articulated set of technical, ideological, political, and economic practices developed within the academic environment in healthcare institutions, organizations of civil society, and in research institutes informed by different

trends of thought resulting from the adhesion or critique to the diverse health reform projects". Its development depends substantially on the production of knowledge guided by research models according to the purposes and problems of collective health.<sup>4</sup>

Since the late 20<sup>th</sup> century and early 21<sup>st</sup> century, changes have been generated in the labor world along with new challenges in the formation of professionals, especially those from the health area,<sup>5</sup> which implies scientific, technical, and ethical responsibilities for their professionals. Improving the quality of social services, in general, demands development and training of new professionals. The research constitutes a knowledge modification and adoption instrument and reinforces intervention possibilities aimed at producing changes in the work environment.<sup>6</sup> Graduate formation constitutes a strategy to contribute to the development of the human resource, in such a way that the professionals trained and the scientific and academic production can participate in the solution of problems affecting their country and its development.<sup>6</sup>

The Faculty of Nursing in Universidad de Antioquia opened its Master's in Collective Health (MCH) in 1991; its purpose has been to train professionals from the health area and from the social sciences for research and action in health, capable of investigating social-sanitary problems and of designing, executing, and evaluating development projects in the local, regional, national, and international settings. The production of scientific knowledge, as a result of research activity, is a challenge for the disciplines of health sciences and social sciences and constitutes one of the ways in which professionals, from the disciplinary exercise, contribute to the solution of theoretical or practical problems of society and within their own discipline.

Scientific production is determined by the commitment from the scientific community and by the dissemination of research results. Thus, knowledge may be used, evaluated, and reconstructed by the community. Hence, it may be

said that research is essential to develop, evaluate, and expand knowledge, which is why it is a vital part of the practice of diverse disciplines and, thereby, benefits users directly.<sup>7</sup> Within the context of the department of Antioquia, there is record of the study reported by Gómez,<sup>8</sup> which analyzed the scientific production of nurses graduated from Universidad de Antioquia and the health and society relationships by using the scientific publications from 1980 to 1990. This study did not contemplate the scientific production of graduate alumni, given that graduate formation in the Faculty of Nursing began only as of 1990. The author showed that only 28.2% were published in scientific journals. This academic production included nursing professionals who published articles derived from research as professors from the Faculty of Nursing or as publications product of graduate works due to their condition as students from Universidad de Antioquia or from other universities.<sup>8</sup>

From 1994 to December 2013, nine cohorts in the MCH have been opened; however, no characterization has been made of the scientific production from the degree works by alumni or of the scientific products derived from said works. Consequently, this research will contribute to said description. Similarly, information will be available on the tendencies over time, the methodological characteristics, themes addressed, and population object of study of the degree works, as well as the general characteristics of the articles published derived from such. The aforementioned justified the need to conduct a work to characterize the scientific production of the degree works of the MCH in the Faculty of Nursing at Universidad de Antioquia, during 1996-2013.

## Methodology

This was a descriptive, observational study based on documentary research and content analysis. It included all the degree works presented in the MCH from 1996 to 2013 and the scientific articles derived from such, which constituted the

population object of study. The degree works were identified in the database from the repository of the Library System in Universidad de Antioquia, information that was contrasted with the records from the Faculty's Department of Graduate Studies.

From the list obtained in the Faculty's Department of Graduate Studies, the search was carried out of the degree works by introducing the surnames and names of each alumni; the publication corresponding to the degree work for which the degree was obtained as Master's in collective health was confirmed. The instrument used to collect information contained the following variables: title, year work was presented, number of authors, number of counselors, general theme, study population, type of study: qualitative, quantitative, and mixed; method of the quantitative study: descriptive, cross sectional, cases and controls, cohorts, controlled clinical trial, ecological, quasi-experimental, validation, others; method of the qualitative study: ethnographic, phenomenological, grounded theory, participative action research, and others.

The scientific publications were consulted in the LILACS and SciELO databases and in Google. For this, the surnames and names of authors were digitized; in addition, the articles were located in electronic format or physical format when the first was not available. The study considered original articles and essays derived from degree works. On the contrary, congress abstracts, editorials, and book chapters were excluded. With respect to scientific publications, the following variables were registered: number of scientific publications associated to each work, title, name of the journal, name of the publication, country of publication, location database, and number of authors.

Thereafter, the journal classification was consulted for the respective name of publication in the National Publication Index (PUBLINDEX) from the Administrative Department on Science, Technology, and Innovation (COLCIENCIAS), if the publication was national, or in the list of journals homologated by PUBLINDEX if it was

international. The classification for all the thematic areas currently comprises four levels, which range from A1 and A2, considered the highest, and from B to level C, considered the lowest.

Information was categorized by using the thematic analysis proposed by Bardin.<sup>9</sup> Related issues were grouped and a label was selected and/or defined. At the same time, the terms were consulted in the descriptors in health sciences (DsHS) from the Virtual Health Library (VHL); some of these themes were adopted from the DsHS and others were formulated by the researchers, seeking to preserve coherence with research works, for example, Child Rearing and Child Development were included in childhood; the Gender and Health category considered issues like women's health, sexuality, and reproductive health. According to Bardin,<sup>7</sup> the notion of theme is tied to the affirmation with respect to a given issue. The theme is the unit of meaning liberated naturally from a text analyzed according to criteria related to the theory that serves as a guide for reading, drawing light upon an axis of relationships that can be presented through a word, a phrase, or an abstract. To define the population, those relate were grouped and consulted in the Virtual Health Library's descriptors in health sciences.

The information was collected via revision of the works and articles published. Data were digitized on a base designed in the SPSS program (version 21) to perform the statistical analysis of the information, which consisted in univariate analysis by calculating absolute and relative frequencies for the variables measured at nominal and ordinal levels, and in bivariate analysis by describing some relationships among variables of interest. This research preserved the data and results of the study, which provided confidentiality and security. The data were analyzed and discussed by the team of researchers and were kept in their custody. Additionally, the anonymity of each of the alumni was conserved, given that the data were only analyzed as a set and no value judgments were made on the scientific quality of the degree works and of the articles published. The Ethics Committee of the Faculty of Nursing (Act N° CEI-

FE 2011-7) approved the research from which this article is derived.

## Results

According to information from the Department of Graduate Studies of the Faculty of Nursing, during the study period 52 degree works were presented in the MCH and for which 66 students obtained degrees from eight cohorts developed. Of these works, 51 were included in this research of which

47 were available in the library and the data for the other four were obtained from the articles published. One of the degree works could not be included because it is not available in the library's database and no article has been published associated to it. Table 1 shows the general characteristics of the works per quinquennial and total: 76.5% of the research had the participation of a single student; 80.4% was counseled by a professor; works carried out by two or three students were registered in the first two and in the last two quinquennials the works were carried out individually.

**Table 1.** General characteristics of the works presented in the Master's in Collective Health of the Faculty of Nursing, Universidad de Antioquia, 1996-2013

Characteristic	Period	1995-1999		2000-2004		2005-2009		2010-2013		Total	
		No.	%	No.	%	No.	%	No.	%	No.	%
Number of works		12	24	15	29	14	29	9	18.0	51	100.0
Number of alumni		20	30.8	21	32.3	15	23.1	9	13.8	65	100.0
Number of authors											
One		5	41.7	10	66.7	15	100.0	9	100.0	39	76.5
Two		6	50.0	4	26.7	0	0.0	0	0.0	10	19.6
Three		1	8.3	1	6.7	0	0.0	0	0.0	2	3.9
Number of counselors											
One		7	58.3	11	73.3	14	93.3	9	100.0	41	80.4
Two		5	41.7	4	26.7	1	6.7	0	0.0	10	19.6

Regarding the themes addressed in the degree works, Table 2 shows that the most frequent were related to Gender and Health (27.5%) and Food and Nutrition Safety with 15.7%.

The populations object of study in the degree works of the Master's in Collective Health during the period studied may be seen in Table 3. By The quinquennials: first addressed a higher proportion of adolescent populations, groups, and community; the second registered more women; during the third the highest percentage was represented by adolescents and adults; and, finally, the fourth had a higher percentage of

adults and women. Works addressing adolescents, women, and health professionals have been present in all of them. During the course of time, an increase is noted in the inclusion of populations like: adults, family and/or caregivers, as well as works involving diverse types of populations. The Indigenous community was registered independently, observing an increase during the last quinquennial, representing 11.1% of the total of the population included. One work registered with LGTBI population was significant during the third quinquennial, as well as with street vendors during the last one.

**Table 2.** Distribution of the themes addressed in 51 works presented in the Master's in Collective Health of the Faculty of Nursing, Universidad de Antioquia, 1996-2013

Themes	Number	Percentage*
Gender and Health	14	27.5
Food and Nutrition Safety	8	15.7
Community participation and human development	4	7.8
Policies and practices in health and nursing	4	7.8
Self-care, healthcare practices	3	5.9
Childhood	3	5.9
Health promotion and disease prevention	3	5.9
Adolescence	2	3.9
Forced displacement	2	3.9
Education	2	3.9
Tropical diseases	2	3.9
Aging	2	3.9
Health-disease process	2	3.9
Social representations	2	3.9
Collective health	2	3.9
Health of the caregiver	2	3.9
Health and work	2	3.9
Violence	2	3.9
Accidents due to explosives	1	2.0
Love	1	2.0
Knowledge, Attitudes, and Practices in Health	1	2.0
Home care	1	2.0
Family	1	2.0
Immunization	1	2.0
Research	1	2.0
Traditional Medicine	1	2.0
Social Security	1	2.0
Down's Syndrome	1	2.0
Medical Sociology	1	2.0

\* One work may address more than one theme

**Table 3.** Distribution of the type of population from the works presented in the MCH per period of time in the Faculty of Nursing, Universidad de Antioquia, 1996-2013

Population	Period	1995-1999 (n=12)		2000-2004 (n=15)		2005-2009 (n=15)		2010-2013 (n=9)		Total (N=51)	
		No.	%	No.	%	No.	%	No.	%	No.	%
Children		0	0.0	0	0.0	1	6.7	0	0.0	1	2.0
Adolescents		3	25.0	1	6.7	1	6.7	1	11.1	6	12.0
Adults		0	0.0	2	13.3	2	13.3	2	22.2	6	12.0
Elderly adults		1	8.3	0	0.0	1	6.7	0	0.0	2	4.0
Health professionals		2	16.7	1	6.7	1	6.7	0	0.0	4	8.0
Nursing professionals		0	0.0	0	0.0	1	6.7	0	0.0	1	2.0
Family/Caregivers		0	0.0	1	6.7	1	6.7	0	0.0	2	4.0
Group/Community		4	33.3	2	13.0	0	0.0	1	11.1	7	14.0
Includes diverse age groups		0	0.0	2	13.3	1	6.7	0	0.0	3	6.0
Women		1	8.3	3	20.0	1	6.7	2	22.2	7	14.0
School aged		0	0.0	2	13.3	1	6.7	0	0.0	3	6.0
Indigenous Community		1	8.3	0	0.0	1	6.7	1	11.1	3	6.0
Mothers		0	0.0	0	0.0	0	0.0	1	11.1	1	2.0
LGTBI Population*		0	0.0	0	0.0	1	6.7	0	0.0	1	2.0
Street vendors		0	0.0	0	0.0	0	0.0	1	11.1	1	2.0
Youth		0	0.0	0	0.0	2	13.3	0	0.0	2	4.0
Health personnel		0	0.0	1	6.7	0	0.0	0	0.0	1	2.0
<b>Total</b>		12	100.0	15	100.0	15	100.0	9	100.0	51	100.0

\* Lesbian, Gay, Bisexual, Transmist, Transsexual, Transvestite, and Intersexual

Table 4 demonstrates that 90.2% of the investigations used the qualitative methodology; 3.9% used the quantitative; and 5.9% the mixed methodology. Among degree works with qualitative methodology, those with ethnographic approach predominated with 50.0%, with this methodology being preponderant in all the quinquennials, except the second. Grounded theory has been present as of the second quinquennial. The *others* category included those degree works that refer to methodologies like: case study, bibliographic review, systematization of experiences and hermeneutics. The quantitative studies were of descriptive nature.

As per the percentage of publications derived from the degree works, this study showed three publications in the first quinquennial, that is, 25.0% with respect to the total number of works; the second quinquennial had seven publications from 46.6% of the degree works. This period

has two original article publications derived from the same work. The third quinquennial had 12 publications derived from the same number of works, that is, 80.0% of the total, and the last quinquennial registered six publications from the same number of works (66.7%). The first three quinquennials showed a progressive increase in the percentage of publications. Table 5 reveals that the 51 works produced 28 articles that, in 46.4%, were published in journals with A2 classification by COLCIENCIAS.

Regarding the type of article, 89.3% were original and 10.7% were essay type. Per the location of the publications, 22 were in LILACS, two in SciELO, three in Google, and one was in physical format. Table 6 shows that 25 of the 28 articles were published in Colombian journals; the most frequent being *Investigación y Educación en Enfermería* with 16.

**Table 4.** Methodological characteristics de los works presented in the en la Master's in Collective Health de Faculty of Nursing, Universidad de Antioquia, 1996-2013

Characteristics	Period	1995-1999 (n=12)		2000-2004 (n=15)		2005-2009 (n=15)		2010-2013 (n=9)		Total (N=51)	
		No.	%	No.	%	No.	%	No.	%	No.	%
Type of study											
Quantitative		0	0.0	1	6.7	0	0.0	1	11.1	2	3.9
Qualitative		10	83.3	13	86.7	15	100.0	8	88.9	46	90.2
Mixed		2	16.7	1	6.7	0	0.0	0	0.0	3	5.9
Methodology of quantitative study											
Descriptive		2	100.0	2	100.0	0	0.0	0	0.0	4	100.0
Approach of qualitative study											
Ethnographic		4	33.3	3	20.0	12	80.0	6	75.0	25	50.0
Phenomenological		0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Grounded theory		0	0.0	3	20.0	2	13.3	1	12.5	6	12.0
Participative action research		0	0.0	1	6.7	0	0.0	0	0.0	1	2.0
Others		1	8.3	6	40.0	1	6.7	1	12.5	9	18.0
Without data		12	58.3	2	13.3	0	0.0	0	0.0	9	18.0

**Table 5.** Classification of the journals that published the scientific articles derived from the degree works in the Master's in Collective Health of the Faculty of Nursing, Universidad de Antioquia, 1996-2013

Characteristic	Period	1995-1999 (n=3)		2000-2004 (n=7)		2005-2009 (n=12)		2010-2013 (n=6)		Total (N=28)	
		No.	%	No.	%	No.	%	No.	%	No.	%
Articles		3	10.7	7	25.0	12	42.9	6	21.4	28	100.0
Journal indexation											
A1		0	0.0	1	14.3	1	8.3	1	16.7	3	10.7
A2		1	33.3	0	0.0	7	58.3	5	83.3	13	46.4
B		0	0.0	2	28.6	3	25.0	0	0.0	5	17.9
C		0	0.0	2	28.6	1	8.3	0	0.0	3	10.7
Not indexed		2	66.7	2	28.6	0	0.0	0	0.0	4	14.3



**Table 6.** Journals that published the scientific articles derived from the degree works in the Master's in Collective Health of the Faculty of Nursing, Universidad de Antioquia 1996-2013

Name of the journal	Number	Percentage	Country of publication
Investigación y Educación en Enfermería	16	57.1	Colombia
Educación física y deporte	2	7.1	Colombia
Revista de la Facultad Nacional de Salud Pública	2	7.1	Colombia
Archivos venezolanos de Puericultura y Pediatría	1	3.6	Venezuela
Salud colectiva	1	3.6	Argentina
Perspectivas en nutrición humana	1	3.6	Colombia
Boletín de Antropología de la Universidad de Antioquia	1	3.6	Colombia
Zainak. Cuadernos de Antropología-Etnografía	1	3.6	Spain
Revista de Psicología Universidad de Antioquia	1	3.6	Colombia
Revista latinoamericana de ciencias sociales, niñez y juventud	1	3.6	Colombia
IATREIA	1	3.6	Colombia
Total	28	100.0	

## Discussion

This research revealed a progressive increase in the number of works presented; more evident in the first three quinquennials, as well as greater diversity in the themes addressed. This agrees with that expressed by Minayo,<sup>10</sup> who states that during the last 10 years of the 20<sup>th</sup> century the production of knowledge in collective health has shown progress, both in the quantitative as in the qualitative, registering diverse theoretical-methodological approaches, as well as in areas and themes. Regarding the methodological approach, in this study the qualitative approach prevailed, which coincides with studies conducted in Brazil,<sup>10-13</sup> specifically in the results of the analysis performed of all the works inscribed in the Congress of Social and Human Sciences in Health, held by the Brazilian Association of Collective Health (ABRASCO, for the term in Portuguese), in São Paulo, Brazil, in 2011, where it was reported that 68% of the works constituted micro-socials of qualitative approach<sup>12</sup> in all the studies.<sup>11-13</sup> Hence, a tendency to incorporate qualitative approach methods is evident in collective health, which could be related to the need of addressing persistent social problems in the health sector that demand another paradigm

for their study; different from the quantitative paradigm<sup>14-16</sup> and, thus, explore the ways people understand and interpret their social worlds,<sup>17</sup> evaluating interaction as something essential to comprehend the reality experienced by individuals and groups.<sup>13-16</sup>

With respect to the use of ethnography, the results coincided with that reported in the study on the theoretical-methodological uses of research in the area of social and human sciences in health, based on the reading of abstracts of scientific journals published between 2009 and 2010, conducted by Deslandes and Iriart<sup>13</sup> who found that the use of this methodology corresponded to 12.7% of the total number of the publications. The study by Díaz *et al.*<sup>18</sup> characterized publications in two formation centers in Colombia and Brazil, finding 79% predominance of quantitative approaches in a Colombian journal. For its part, in the Brazilian center the research published presented a greater balance between both paradigms; qualitative studies represented 49.4% of the total number of research works.

The different ways of addressing and viewing the problems of collective health constitutes

the strength of the MCH program, given that they favor the articulation of students from the master's program onto the different research groups and the possibility of academic exchange with other Colombian and foreign universities, as expressed by Minayo: science values the plurality of rationalities and knowledge, even those coming from informal knowledge, expressed in the everyday language and experience.<sup>19</sup> Themes related to Gender and Health constituted the highest percentage of the themes addressed (27.0%), coinciding with the biggest proportion registered for this theme (16.5%) in the study on the scientific production of the social and human sciences in health published in seven journals in the area of collective health in Brazil from 1997 to 2007.<sup>20</sup> Also, the interdisciplinarity of the MCH program reflects the interest of professionals on the gender theme. For Canaval<sup>21</sup> issues related to gender go beyond the limits of any discipline in addressing women's health and provides elements to understand phenomena that have their genesis in profound social aspects.

With respect to the publication of scientific articles, their increasing trend along the first three quinquennials for this article coincides with the study presented by Rodríguez-Gázquez *et al.*<sup>22</sup>, which characterized the scientific production of the journal *Investigación y Educación en Enfermería* (IEE) during its 30 years of edition. According to the authors, the increased number of articles published in this Journal is because three numbers have been published per year as of 2010, besides the availability of a platform on its web page for submission and follow up of manuscripts, and, additionally, since 2012 the Journal is published in English, which encourages receiving articles from any part of the world. It is important to remember that in this study the highest percentage of the publications derived from degree works are registered in the IEE Journal. Articles published in journals with B index or above register a tendency to increase, totalizing 17 articles, equivalent to 60.7% of the total.

The findings in this research permitted describing the production of knowledge from the MCH,

during 18 years, registering the methodological trends and themes, as well as the population object of study of the works. Likewise, it was possible to identify opportunities to include new themes for the degree works, seeking a Reading of the contexts and realities in the field of collective health, approaching the needs of collectivities and the health policies to contribute to the development of professional formation in the field of collective health. The results presented also show the need to strengthen the scientific publication of the findings of research carried out. At the same time, it is fundamental to include the degree works in electronic format in the library repository, as well as in other databases to favor open access and guarantee free access to information and benefit visibility, use, and impact of research.<sup>23,24</sup> Let us end by paraphrasing Professor Edmundo Granda<sup>25</sup> when he recalls that our challenge is to transcend conventional theory and practice, seeking to improve the population's healthcare.

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