Abstract

Objective: To identify the competencies and teaching strategies to address the inequalities used in nursing education, indicating convergences and divergences in the perspectives of nursing professors and students.

Methods: This is a descriptive research, data obtained from an online questionnaire answered by 183 students and 86 professors/coordinators of undergraduate nursing courses from different regions of Brazil. The variables were related to the characterization of participants, themes linked to inequalities, preparation to act on inequalities and strategies to develop competencies. Scores were created to measure the degree of approach to inequalities and agreement on the preparedness to deal with vulnerable audiences. A significance level of 5% was considered.

Results: The study included mostly white women, linked to public education institutions in southeastern Brazil. There was a high degree of agreement regarding the approach to inequalities in nursing education, except for the theme of Health Advocacy. Training limits were identified to work with people deprived of liberty, indigenous and quilombola populations. Themes related to inequality are taught especially through outreach actions, lectures/events, compulsory subjects and practical activities/internships. Contradictorily, the classes were indicated as the main teaching strategy for developing the various competencies in the face of inequalities, which must be learned throughout the course.

Conclusion: There is a high degree of agreement in the perspectives of professors and students on the approach to inequalities in nursing education, with the exception of the approach to health inequalities. The need to expand the view on historically neglected social groups is indicated.

Resumo

Objetivo: Identificar as competências e estratégias de ensino para abordagem das desigualdades utilizadas na formação em enfermagem, indicando convergências e divergências nas perspectivas de docentes e discentes de enfermagem.

Métodos: Pesquisa descritiva, dados obtidos de questionário online respondido por 183 discentes e 86 docentes/coordenadores(as) de cursos de graduação em Enfermagem das diferentes regiões do Brasil. As variáveis foram referentes à caracterização dos participantes, temáticas vinculadas às desigualdades, preparo para atuar nas desigualdades e estratégias para desenvolver competências. Foram criados escores para dimensionar o grau de abordagem das desigualdades e a concordância quanto ao preparo para lidar com públicos vulnerabilizados. Foi considerado nível de significância de 5%.

Resultados: Participaram do estudo majoritariamente mulheres, brancas, vinculadas a instituições de ensino público da região Sudeste do país. Houve alto grau de concordância quanto à abordagem das desigualdades...
Perspectives of professors and students on social inequalities in nursing education

...inequalities, except for the theme of Advocacy in Health. Identified limits of the formation to act on the part of people, indigenous and quilombolas. Themes related to Inequality are taught especially by actions of extension, conferences/events, activities/estagios. Contradictorily, the classes were indicated as the principal strategy to develop competencies. They were created scores to measure the dimensions of inequality, which one must see at least a 5% level of significance.

Results: Participated in the study primarily women, whites, linked to public institutions of the country. They verified a high degree of agreement with respect to the formulation of inequalities and the level of agreement and disagreement with respect to the preparation to deal with publics in conditions of vulnerability. They considered a high level of agreement with the theme of Advocacy in Health, except for the theme of Health Advocacy. Identified limits in the preparation to act on people, indigenous and quilombolas. Themes related to Inequality are taught especially by actions of extension, conferences/events, disciplines/obligatory and activities/practicals/estagios. Contradictorily, classes were indicated as the principal strategy to develop competencies among the different dimensions of inequality, which one must see at least a 5% level of significance.

Conclusion: There is a high degree of concordance among the perspectives of students and instructors on social inequality in nursing education, indicating convergences and divergences in the perspectives of professors and of students in nursing education.

Introduction

Current social dynamics lead to the need to discuss inequalities, placing them under intense public and scientific attention. A renowned author in the field highlights the aspects of inequalities in the context of accentuated globalization and the plurality of inequalities, identifying them as hierarchical, avoidable, and morally unjustified differences. In this regard, he defines three main dimensions of inequality: “vital”, “existential” and “resource”.[1]

Vital inequalities are related to life and death so that health and longevity are distributed according to identifiable social patterns. Existential inequalities recognize the denial of (equal) recognition and respect of individuals as people, with restrictions on the freedom of action of certain subjects, such as women, blacks, indigenous people, immigrants, poor people, members of lower castes and certain ethnic groups. In resource or material inequality, it is understood that individuals have different resources; therefore, there is inequality in access to education, career and social contacts, the so-called inequality of opportunities.[2]

There are also categorical inequalities involving gender and age, race and ethnicity, social class and educational level, nationality and cultural identity, among other forms.[3,4] Understanding that there are populations more affected by inequalities, depending on the category analyzed.

The different dimensions or categories that produce inequalities are still a theme of national and international studies, research and policies, as they cross the whole of the social fabric.[5] In the Brazilian context, inequalities are historic and significant, with repercussions on access to basic rights, public health policies, education and infrastructure. Despite the significant advances made in the country, numerous inequalities still persist, being one of the most unequal countries in the world.[6]

Tackling inequalities is clearly defined as an action within the scope of healthcare professionals, especially nursing.[7,8] Ethically, nurses must promote equity in health, through a practice guided by the Social Determinants of Health,[9] presenting an organized and sustained effort to promote social justice,[7] with practices in tune with the territories’ demands and needs.[8]
From the point of view of nursing education, a critical review showed that there are strategies used to address inequalities in elements such as social justice, cultural competency, cultural security and defense, with a focus on socially vulnerable populations.\(^{(10)}\)

In the literature, there are indications of deficiencies in coping with inequalities through nursing education and practice, expressed in low (de) involvement of social reforms and political advocacy;\(^{(7)}\) challenges for equity through practice\(^{(11)}\) and curriculum deficiencies.\(^{(7,12)}\)

There is also a knowledge gap about the competencies needed to tackle inequalities and how these are developed in undergraduate nursing courses. A critical review study pointed out the need to develop research on the perspectives and experiences of professors and students on how to incorporate inequalities in nursing education.\(^{(13)}\)

In this context, this study aims to identify the competencies and teaching strategies to address the inequalities used in nursing education, indicating convergences and divergences in the perspectives of nursing professors and students.

**Methods**

This is a descriptive and exploratory research, of a quantitative nature, developed with the application of online questionnaires, analyzed using descriptive statistics. Data collected by online questionnaires representing all regions of Brazil, specifically the states as follows: AM, PA, BA, PI, MA, SP, RJ, MG, ES, MS, SC, and RS.

The selection criteria for participants were: being a student, a professor or coordinator of an undergraduate nursing course from public or private institutions. The sample consisted of students (n=183) and course coordinators/professors (n=86). To reach the target audience, contact lists of nursing course coordinators in Brazil, student leaders and research groups were used, in addition to dissemination on social networks and other communication vehicles.

Data collection was carried out from April to August 2019, the period between the release of the online questionnaires and the return of the answers. The questionnaires were created by the research team and made available on the SurveyMonkey Platform, with a specific version for students and another for professors/course coordinators. After preparing the questionnaire, a test was applied to adapt and validate the content. Questionnaire reliability was measured by Cronbach’s alpha coefficient, a coefficient of 0.913 for students and 0.944 for professors was obtained, indicating a high degree of internal consistency for both groups.

The questionnaires had 12 questions divided into two sections. The first section, with a general characterization of participants, contained seven multiple-choice questions and an open-field question (age). The second section, on aspects about the approach to inequalities in education, contained four questions in a Likert-type scale format and one with multiple choice. For the professors/course coordinators, we found a completeness of the questionnaire above 95.4% for the different questions. For students, the degree of completeness of the variables was above 96.7%.

Study variables were related to the characterization of participants (gender, age, race, location, nature of the institution, course period or level of education, performance or promotion of academic or extracurricular activities); themes linked to inequalities (agreement in relation to the approach of themes related to inequalities during the nursing course); preparation to act on inequalities (teaching strategies in which inequalities are addressed; preparation to deal with vulnerable audiences; competencies to act against inequalities); strategies to develop competencies (appropriate strategies for professors/coordinators to teach and students to learn and the most opportune course period for the development of competencies to face inequalities).

The data obtained were exported to the Statistical Package for Social Sciences (SPSS) software, version 22.0, submitted to descriptive analysis of all investigated variables and stratified into two groups: professors and students. For comparison between these groups, Pearson’s chi-square test or Fisher’s exact test was used to analyze categorical variables, Student’s t test, to analyze numerical variables that presented
normal distribution, or Mann-Whitney test, to analyze numerical variables that did not have normal distribution according to the Kolmogorov-Smirnov test. In all analyses, a significance level of 5% was considered.

To measure the degree of approach to inequalities and agreement on the preparation to deal with vulnerable audiences, approach and vulnerable audience scores were created in the analysis process. The first could range from one to 55 points, an interval that represented the approach of only one theme (one point) to the maximum score if all themes were addressed. The second score could range from one to 45 points, with the lowest value equivalent to agreement regarding the preparation to deal with at least one vulnerable group up to the total (45 points), when the respondent considered that they were prepared to deal with all vulnerable groups. Scores were divided, proportionally in relation to the total, with indices that signaled a low (one to 18), medium (19 to 37) or high (38 to 55) percentage of agreement among the respondents regarding the approach to themes in training, or low (one to 15), medium (16 to 30) or high (31 to 45) percentage of agreement among respondents regarding the course preparation to act in front of vulnerable groups.

Participants were previously informed about the objectives and purposes of the study and registered the Informed Consent Form online. The research complied with Resolution 510 of April 7, 2016 of the Brazilian National Health Council (Conselho Nacional de Saúde) and was approved by the Institutional Review Board of the Universidade Federal de Minas Gerais.

**Results**

It reached a total of 269 answered questionnaires, 68% from students and 32% from professors. Most student respondents are female (83.6%), self-declared white (49.7%), with a median age of 22 years and coming from public universities (65%). The main region of origin of students was the Southeast (84.2%). Regarding the period they attended, 49.7% were between the 5th and 8th, 35.4% between the 1st and 4th and 14.9% between the 9th and 10th periods.

Regarding professors/course coordinators, 84.9% were female, 66.3% self-declared white, with a median age of 42 years, 51.2% from public universities, 55.8% from the Southeast of Brazil. About titration, 55.8% had a doctoral/post-doctoral degree and 34.9% had a master’s degree.

Among students, the percentage of self-declared whites was significantly lower compared to professors (p-values <0.05).

Participants were asked about the level of agreement with themes related to inequalities addressed during the nursing course. It is verified that only the theme Inequity showed a significant difference between the two groups (p-value <0.05), revealing that 61.4% of students totally agree/agree, and among the professors this percentage was 79%. For the other themes, the difference was not significant, as shown in Table 1.

**Table 1. Themes related to addressing inequalities**

<table>
<thead>
<tr>
<th>Themes</th>
<th>Agree/Totally agree</th>
<th>Disagree/Totally disagree</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inequality</td>
<td>n=181</td>
<td>n=83</td>
<td>n=180</td>
</tr>
<tr>
<td>Economic inequality</td>
<td>146(80.7)</td>
<td>62(74.7)</td>
<td>35 (19.3)</td>
</tr>
<tr>
<td>Health inequality</td>
<td>150(83.3)</td>
<td>67(78.8)</td>
<td>30 (16.7)</td>
</tr>
<tr>
<td>Gender inequality</td>
<td>160(88.4)</td>
<td>79(92.9)</td>
<td>21 (11.6)</td>
</tr>
<tr>
<td>Iniquity</td>
<td>119(65.7)</td>
<td>61(71.7)</td>
<td>57 (31.5)</td>
</tr>
<tr>
<td>Social protection</td>
<td>111(66.1)</td>
<td>57(69.5)</td>
<td>53 (32.9)</td>
</tr>
<tr>
<td>Vulnerability</td>
<td>161(89.0)</td>
<td>76(90.5)</td>
<td>20 (11.0)</td>
</tr>
<tr>
<td>Human rights</td>
<td>151(83.9)</td>
<td>73(86.9)</td>
<td>29 (16.1)</td>
</tr>
<tr>
<td>Social rights</td>
<td>178(95.5)</td>
<td>66(78.2)</td>
<td>31 (17.4)</td>
</tr>
<tr>
<td>Health advocacy</td>
<td>117(64.7)</td>
<td>57(69.5)</td>
<td>50 (28.2)</td>
</tr>
</tbody>
</table>

*Pearson’s chi-square test; †Mann-Whitney test
In Table 1, Health advocacy is the theme with the lowest percentage of agreement on the approach during training, both for students and for professors. In turn, Health inequality and Vulnerability are the themes with the greatest agreement for both groups. The results show a high rate of approach to themes related to inequalities in nursing education, with an average score of 40.0 points among students and 41.8 points among professors, with no significant difference between the groups, in the highest level of approach (38 to 55 points). When asked about strategies to address inequalities in nursing education, 81.4% of professors say they use scientific initiation, extension or community actions. The other most described strategies are lectures/events (73.3%), mandatory subjects (65.1%) and practical activities/internships (60.5%). Strategies for elective courses, lectures and virtual/face-to-face simulations are the least mentioned. Students mainly recognize the approach to inequalities through mandatory courses (77.6%) and in lectures/events (63.9%). Regarding scientific initiation, extension or community actions, only 38.3% of students identify its use. Only for presentations and lectures/events strategies there is no significant difference between students and professors (p>0.05).

**Attention to vulnerable audiences and competencies to face inequalities**

Regarding the preparation to deal with vulnerable populations, students agree that they feel prepared to work mainly with low-income population, LGBTQIA+ population, chemical dependents and drug users and sex workers, according to data presented in Table 2.

Students disagree that the training prepares them to work with indigenous (62.1%) and quilombola (61.1%) populations. Similarly, there is a high percentage of disagreement in relation to the preparation to act in front of persons deprived of liberty (69.8%). Among professors, the lowest percentages of agreement are also related to work with people deprived of liberty. When analyzing the score of vulnerable audiences, the results indicate an average rate (16 to 30 points) of preparation for both professors and students, with higher values for the responses of professors and a significant difference compared to students. There are, therefore, indications of greater preparation to deal with these audiences from the perspective of professors. This significant difference is also found in relation to drug addicts and drug users. Regarding teaching strategies in nursing training for the development of the various competencies to act in the face of inequalities, most students and professors indicate classes and internships as the main strategies, according to data in Table 3.

Fisher’s exact test and Pearson’s chi-square test indicate differences in the strategies indicated by the two groups for Administration and management, Cultural competency, Political competency, Education and lifelong learning, and Leadership and Decision-making competencies. It is noteworthy that cultural competency and political competency are indicated by professors to be developed predominantly in extracurricular activities. For students, these competencies are primarily developed in classrooms.

<table>
<thead>
<tr>
<th>Audience</th>
<th>Agree/Totally agree</th>
<th>Disagree/Totally disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>Professor</td>
<td>Student</td>
</tr>
<tr>
<td>n=183</td>
<td>n=86</td>
<td>n=183</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audience</th>
<th>Mean ± standard deviation</th>
<th>Median (Minimum - Maximum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score of vulnerable audiences</td>
<td>27.5 ± 4.8</td>
<td>30.3 ± 8.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audience</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>0.012†</td>
</tr>
<tr>
<td>Professor</td>
<td></td>
</tr>
</tbody>
</table>

*Pearson’s chi-square test; †LGBTQIA+ - lesbian, gay, bisexual, transgender, queer, intersex, asexual; ‡Student’s t test; **Quilombola is a common designation for refugee slaves in quilombos, or descendants of black slaves whose ancestors during the period of slavery fled from sugar cane plantations, farms and small properties where they performed various manual labor to form small villages called quilombos.
Internships, for professors, are strategies for developing Recognizing individual and collective needs, Change management, Education and lifelong learning, leadership and decision-making, Administration and management competencies. For these same competencies, students identify classes as the most appropriate strategy.

Regarding the most opportune moment for the development of the listed competencies, 36% of students point to Health advocacy midway through the course as the most opportune moment, while 38% of professors point to development throughout the course. In all other competencies, the highest percentages of responses from students and professors are located in the option throughout the course, with a high degree of agreement.

**Discussion**

Initially, it is considered that, given the methodological choices, the form of gathering participants can be characterized as a study limitation, since those who participated in the research somehow became interested in the theme and took an active role in filling out the form. Thus, from the point of view of the generalization of the findings, participants’ perceptions may not represent the global opinion of Brazilian nursing professors and students. To minimize this limitation, the profile of the participants was presented, allowing for a positioned analysis.

The study points out the need for improvements in nursing education and, therefore, possibilities for improving the production of care, aiming at advancing the agenda of reducing inequalities and building fairer, more democratic and citizen relations. This theme is particularly suitable in the Brazilian context.

The findings reflect participants’ understanding of inequalities in a generic perspective, which includes different conceptions and dimensions. The expressive agreement between students and professors in addressing Health inequalities, Vulnerability and Human rights during the course revealed a possibility of training nurses with the ability to perceive the social context and attentive to the multifactorial issues that influence the health-disease-care process.

However, there seems to be less understanding about the concept of Health advocacy, being a competency with few indications of its approach and development in training. There are limits to the development of Health advocacy in nursing education, not being recognized as a field worked in professional training, giving only a shallow conception of its concept and without effective application in reality.\(^{(14)}\)

Although the findings indicate an understanding of Inequalities in different conceptions and dimensions, participants had a lower percentage of agreement on the approach to the concepts of Inequity and Social protection. Specifically, the term inequality showed a significant difference between professors and students, with professors having greater agreement about the approach to training. Currently, these concepts have been reflected in the defense of global health, in the construction and consolidation of nursing so that it can ensure universal health in the context of the Sustainable Development Goals.\(^{(15)}\)

Analyzing the scores obtained, it is necessary to demarcate that there is a high rate of approach to issues related to inequality, while there is a medium rate of preparation for attention to different vulnerable populations. There is also a significant difference between professors and students in the score of vulnerable populations (and also in the preparation

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**Table 3. Strategies to develop competencies**

<table>
<thead>
<tr>
<th>Competencies (p-value)</th>
<th>Main strategy (%)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Student</td>
<td>Professor</td>
</tr>
<tr>
<td>Health advocacy</td>
<td>Classes (61.7)</td>
<td>Classes (40.0)</td>
</tr>
<tr>
<td>Healthcare</td>
<td>Classes (57.8)</td>
<td>Classes (51.5)</td>
</tr>
<tr>
<td>Administration and management</td>
<td>Classes (60.4)</td>
<td>Internships (52.3)</td>
</tr>
<tr>
<td>Cultural competency</td>
<td>Classes (42.0)</td>
<td>Extracurricular activities (46.9)</td>
</tr>
<tr>
<td>Political competency</td>
<td>Classes (54.1)</td>
<td>Classes (55.6)</td>
</tr>
<tr>
<td>Communication</td>
<td>Classes (45.5)</td>
<td>Classes (34.9)</td>
</tr>
<tr>
<td>Education and lifelong learning</td>
<td>Classes (40.9)</td>
<td>Internships (31.7)</td>
</tr>
<tr>
<td>Leadership and decision-making</td>
<td>Classes (36.0)</td>
<td>Internships (53.8)</td>
</tr>
<tr>
<td>Change management</td>
<td>Classes (36.7)</td>
<td>Internships (30.2)</td>
</tr>
<tr>
<td>Recognition of individual and collective needs</td>
<td>Classes (41.8)</td>
<td>Internships (48.4)</td>
</tr>
<tr>
<td>Responsibility, ethics and deontology</td>
<td>Classes (74.5)</td>
<td>Classes (53.8)</td>
</tr>
</tbody>
</table>

*Pearson’s chi-square test; †Fisher’s exact test
to deal with drug addicts and drug users) so that, from the perspective of professors, there is a greater perception of preparation to deal with such audience. Therefore, there are indications of a training that incorporates content, but does not dedicate the same efforts in preparing to act in front of populations affected by inequalities.

There are dimensions of inequalities that affect society that are not yet widely incorporated in the nursing course, such as the preparation to deal with drug addicts, people deprived of liberty, indigenous people and quilombolas. The existence of indigenous and quilombola populations is a reality in the national territory, but often unknown or neglected in professional training.

Students and professors point out that the development of competencies to act on inequalities must be carried out especially throughout the course. There are experiences in the development of competencies of a nature similar to those for dealing with inequalities and that occur at different times in the course. A literature review on competencies for health promotion informs the approach in supervised practice and in theoretical classes throughout the course.

Educational, didactic or teaching activities, such as lectures, demonstrations, seminars, field practices, directed studies, simulations, educational games, projects, visits, bibliographic researches with learning situations created by professors can increase the probability of students living experiences necessary for educational goals. In this sense, it is necessary to make use of different strategies, instruments, techniques and teaching spaces to encourage reflexivity and promote potential to propose appropriate solutions to the problems faced in daily practice. Inequality is one of these problems.

In turn, some competencies cannot be learned in parts, with pedagogical practices that only advocate classroom activities, with readings and demonstrations. These competencies require integrated, professor-led, and professor-instructed learning in reflective teaching, with pedagogical practices that emphasize the critical action-reflection-action movement.

Combined teaching strategies, including undergraduate/graduate programs and courses, in-service learning and simulation, each with its own specificities, can enhance the commitment of nursing education to overcome inequalities.

Therefore, it is highlighted that the various teaching strategies throughout the nursing course are important in a critical-reflective, creative and transformative training process and that some competencies require differentiated strategies. Moreover, it is necessary to rethink the model for teaching competencies in order to address inequalities, innovating in strategies that develop these competencies in their technical, political and social dimensions.

Conclusion

The study’s findings allow us to conclude that the perspectives of professors and students have converged on training to act on social inequalities, with a high degree of agreement regarding the approach to themes, teaching strategies and moments of this training. Disagreements or uncertainties are highlighted, for students and professors, about the approach of Health advocacy, a central competency for acting committed to coping with inequalities. There are divergences regarding the approach to the theme of health inequities in training. An indication of greater preparation of professors to deal with vulnerable populations is identified, especially drug addicts and drug users. Perspectives on the limits of training to work with people deprived of liberty converge. It indicates the need to expand the view on social groups historically neglected in healthcare, especially the population deprived of liberty, indigenous and quilombola populations. There is also a need to diversify the recognition of teaching strategies in the development of different competencies to act in the fight against social inequalities.

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Perspectives of professors and students on social inequalities in nursing education

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Collaborations

Silva KL, Schreck RSC, Gandra EC, Rabelo ARM, Silva LLF and Guimarães RA collaborated with the study design, data analysis and interpretation, article writing, relevant critical review of the intellectual content and approval of the final version to be published.

References