Differences in cultural competence between nursing students in academic and professional programs

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Abstract

Objective: Multicultural phenomena require nursing students to have cultural competence. Nursing students who are culturally competent can understand more about patients' issues with regard to cultural diversity and equality when delivering culturally sensitive care. This study aims to identify cultural competence across educational levels.

Methods: This study involves 164 students of a second-semester professional program and an eighth-semester academic program. This study employs a cross-sectional design and a stratified random-sampling technique. The questionnaire used is modified from related concepts and theories of culture care and cultural competence.

Results: The results show that the average cultural-competence scores of second-semester professional students and eighth-semester academic students are 60.0 and 59.0, respectively (p = 0.283; alpha = 0.05).

Conclusions: Based on the results of the statistical tests, there was no significant statistical difference in cultural competence between second-semester professional students and eighth-semester academic students. Further research is needed to examine the factors affecting cultural competence of students.

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Keywords

Transcultural nursing; Cultural competence; Nursing students
Introduction

Nursing students are facing more complex challenges than before. Part of this is due to rapid population growth. In 2015, the United Nations estimated that the world’s population would increase from 7.3 billion to 11.2 billion by the year 2100. In 2012, the US Census Bureau stated that the population of the United States would increase by 50% by 2043. Indonesia is experiencing this phenomenon as well. The population of Indonesia would increase by 54% by 2050.

Indonesia has a large number of ethnic groups. Central Bureau of Statistics stated that Indonesia has more than 1300 tribes. In 2013, the Central Bureau of Statistics and the Institute of Southeast Asian studies cooperated to classify 633 tribes in Indonesia, including Batak, Javanese, Sundanese, Minang, and others. The large number of tribes in Indonesia gives the country a diverse cultural background.

The cultural diversity of clients encourages nursing students and professional nurses to deliver culturally sensitive care. In delivering culturally sensitive care, they must understand transcultural nursing and acquire cultural competence. A high level of cultural competence could encourage nursing students to better understand the cultural diversity and equality of every client included their client’s values and beliefs.

A good understanding of cultural diversity and equality could prevent cultural conflicts. Nursing students who have low cultural competence could be guilty of racism. In 2011, the institute of medicine reported that minority races in United States received lower quality of healthcare compared to majority races.

Cultural competence should be taught early. Novieastari et al. stated that cultural competence should be instilled from the academic stage in order to improve cultural awareness through various learning-simulation-method modifications. In this way, nursing students could have values and beliefs that meet clients’ cultural needs.

Nursing students should have a high cultural competence and understand the concept of transcultural nursing to be professional nurses. Based on the etowa statement quoted by Gilchrist & Rector, “nursing students who experienced multicultural learning situations could acquire better cultural competence during healthcare delivery”. According to the Indonesian National Nurses Association, a professional nurse should be capable of providing ethical, legal, and culturally sensitive nursing care. This is in line with the expected final competence of nurses graduating from the Faculty of Nursing Universitas Indonesia (FON UI), namely to deliver culturally sensitive care by respecting clients’ ethnicities, religions, and other factors.

A professional nurse should be capable of delivering culturally sensitive care, as stated in the professional nurse program agreement of the Association of Indonesia Nurse Educational Institution Center. It is also the final competence expected by FON UI for its bachelor- and professional-program graduates. Furthermore, students of eighth-semester academic programs and second-semester professional programs learn transcultural nursing and cultural competence. This knowledge is obtained in the Basic Concept of Nursing course, and some students also take the cross-cultural assessment course. Students of eighth-semester academic programs and second-semester professional programs also experience clinical practice to apply the knowledge they obtained in college. Therefore, the researcher is interested in identifying the differences in cultural-competence levels between students of eighth-semester academic programs and second-semester professional programs at FON UI.

Method

Design

This research uses a cross-sectional design in which the researcher measures variables at a certain moment in time. This study was conducted at a single point in time without doing any follow-up or intervention. The reason for this cross-sectional design is to identify the cultural-competency level between eighth-semester academic students and second-semester professional students. Another reason researchers use this approach is that it is simple, easy to implement, inexpensive, efficient, and fast, and it can be used as the basis for further research to be more conclusive.

Population and setting of the study

The samples were selected by using a stratified random-sampling technique. There were 164 students involved in this study, comprising 77 students of from an eighth-semester academic program and 87 students from a second-semester professional program. The criteria for this study are that participants must be academic students of the 2013 (eighth semester) class or professional students of the 2016 (second semester) class at the Faculty of Nursing Universitas Indonesia, and the students must be registered and active. The study was conducted from November 2016 to June 2017 at the Faculty of Nursing Universitas Indonesia in Depok, West Java.

Variables

In the study, there are two variables: the independent variable and the dependent variable. The independent variable is the FON UI student program consisting of eighth-semester academic students and second-semester professional students. The dependent variable is the level of cultural competence in providing culturally sensitive nursing care.

Data collection

Data was collected using questionnaires divided into two parts. The first part contains demographic data such as the student’s name, number, gender, age, tribe, and educational program. The second part contains questions to assess the level of cultural competence. This second part has been modified from Novieastari and according to Fitzgeral et al. in Psychometric testing of the inventory for assessing the process of cultural competence among health care professionals-student version (IAPCC-SV®). The validity and reliability of this study were tested, resulting all questions being valid and reliable (Cronbach alpha = 0.723).
Data analysis

Data was analyzed with univariate and bivariate analysis. Univariate analysis comprises numerical data, such as age, cultural-competence components, and cultural-competence levels by using mean, median, and standard deviation tests. Categorical data comprises gender, religion, and tribe using a proportion test. In this study, bivariate analysis tested the categorical data and numerical data by using the Mann–Whitney test because the data was not normally distributed ($p < 0.0001$).

Results

This study was conducted on April 2017. The result is as follows:

A. Student characteristics based on gender, religion, and tribe
   Most of the students in this study were female (149 students or 90.9%) and Muslim (145 students or 88.5%). Furthermore, 77 students (47.0%) were Javanese and 16 students (10.0%) were from other ethnic groups not mentioned in the questionnaires, such as Lampungnese, Sasak, Toraja, and others.

B. Student characteristics based on age
   The average age of students in this study is 23.24 years with a standard deviation of 4.185 years. The youngest respondent is 20 years old, from the academic students of 2013, and the oldest is 50 years old, from the professional program of 2016. The interval estimation results could be concluded to be 95%. Thus, the average ages from students of the eighth-semester academic program and the second-semester professional program are 22.60 to 23.89 years.

C. Cultural-competence description based on cultural-competence components
   The average score of some cultural competence components in professional program is higher. In terms of cultural knowledge, students of the second-semester professional program obtained higher average scores is 14.39 than students of the eighth-semester academic program is 13.58. Moreover, students of the second-semester professional program obtained higher average scores for cultural awareness (professional program = 9.46 and academic program = 9.42), cultural skill (professional program = 8.57 and academic program = 8.47), and cultural encounters (professional program = 15.37 and academic program = 15.27).

D. Cultural-competence level differences between eighth-semester academic program students and second-semester professional program students
   Table 1 shows the average scores and the $p$ value of cultural-competence levels in this study. Table 1 shows that the average score of students in the second-semester professional program is higher than that of students in the eighth-semester academic program. The difference can be seen in the median score of these both groups, which are 60.0 and 59.0, respectively. However, there is no significant difference statistically.

<table>
<thead>
<tr>
<th>Student program</th>
<th>Mean</th>
<th>Median</th>
<th>SD</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic 2013</td>
<td>60.26</td>
<td>59.0</td>
<td>4.408</td>
<td>0.283</td>
</tr>
<tr>
<td>Professional 2016</td>
<td>61.06</td>
<td>60.0</td>
<td>4.966</td>
<td></td>
</tr>
</tbody>
</table>

Discussion

The results show that there is no significant statistical difference in cultural-competence level between students of the eighth-semester academic program and the second-semester professional program ($p = 0.283$; alpha = 0.05). Nevertheless, the clinical difference can be seen from the median scores of 60.0, which indicates cultural competence, and 59.0, which indicates cultural awareness.11

The results of this study are in line with research conducted by Ellen and Glass who also found that there was no significant statistical difference in cultural-competence level between students who had graduated and those who had not ($p = 0.237$; alpha = 0.05). Ellen and Glass’s study involved 140 nursing students, comprising 58 students who had graduated and 82 students who had not graduated. The result Ellen and Glass’s study could be because the sample characteristics were too similar as they were selected from the same institution and the sample size was insufficient.12

However, the results of this study are different from research conducted by Witt, who stated that there is a significant statistical difference in cultural-competence level between students in their second year and those in their final year ($p \leq 0.001$; alpha = 0.05).13 Witt’s research was conducted in 2016 and involved 438 nursing students. This significant difference was due to the fact that cultural-competence level was affected by clinical experience and learning experience. Furthermore, Kalinowski et al. stated that continuous experience and learning could improve cultural competence.13 The absence of a difference in cultural competence in this study was probably due to the sample size. Hastono stated that the higher the sample size for analysis, the greater the possibility of a significant difference.14 This study was conducted with 164 students, comprising 87 professional-program students and 77 academic-program students and so was a smaller sample size than previous studies.

Nevertheless, research is not only concerned with statistical significance. Hastono stated that the significance of research could be seen both statistically and substantially or clinically.15 The results show that $p = 0.283$, which means that there is no significant statistical difference. However, the clinical difference can be seen from the mean score. The median score of second-semester professional students is
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60.0, which indicates cultural competence. Students of the eighth-semester academic program obtained a mean of 59.0, which indicates cultural awareness.12

Nursing students should have a high cultural-competence level. In addition to high cultural competence, nursing students should understand the concept of transcultural nursing to deliver culturally sensitive care. Providing culturally sensitive care could affect client satisfaction levels. This statement is supported by the research conducted by Noviestari who found that diabetes mellitus clients who were treated with culturally sensitive care were 5.2 times more satisfied than clients who were not (p < 0.001).5

This study shows that there is no significant statistical difference in terms of cultural-competence levels between students of an eighth-semester academic program and a second-semester professional program. However, based on the cultural-competence scores, students of the second-semester professional program are at a culturally competent level, while students of the eighth-semester academic program are at a culturally aware level, which shows that these two groups could appreciate the cultural diversity and equality of every client included their client’s values and beliefs. Moreover, the average score of students in the second-semester professional program is higher than that of students in the eighth-semester academic program in terms of cultural awareness, cultural knowledge, cultural skill, and cultural encounters. These results show that there is a clinical difference between the two groups. The absence of a statistical difference in this study could be due to the insufficient sample size.

The results of this study could be used as a reference for nursing students to do self-reflection to improve their cultural competence. Cultural competence could be improved by having more interactions with clients from different cultural backgrounds and by reading resources on transcultural nursing and cultural competence. Further research could expand the sample size to obtain a significant statistical difference.

Conflict of interests

The authors declare no conflict of interest.

Acknowledgement

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8. Noviestari E, Murtiwi, Warsih W. Modified simulation learning method on knowledge and attitude of nursing student’s cultural awareness, cultural knowledge, cultural skill, and cultural encounters. These results show that there is a clinical difference between the two groups. The absence of a statistical difference in this study could be due to the insufficient sample size.


