Nursing and Midwifery Students’ Communication Skills Training: A Systematic Review

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Author’s contribution
The sole author designed, analysed, interpreted and prepared the manuscript.

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ABSTRACT

Background: Communication skills are reported to be of high importance for nursing and midwifery practice. Communication skills refers to how actions are used in sending messages. The necessity for nurses and midwives to be good communicators has been demonstrated.

Objective: To investigate the quality of evidence of communication skills training for nursing and midwifery students on patients’ outcome in nursing and midwifery colleges.

Methods: Firstly, a search in the databases of Ovid Medline (1946 - present), Ebscohost and CINAHL (1960 - present) to find relevant studies were conducted. Secondly, there was hand searching of three journals from Africa. Thirdly, the reference lists of studies found were searched for additional studies. Fourthly, there was consultation with professionals around communication skills training and the leadership of Ghana Nurses and Midwives Association.

Results: Quality assessment using the Grading of Recommendations Assessment, Development and Evaluation system found that out of the 10 studies that were included, only one was of moderate quality. The other nine studies were of low quality.

Conclusions: The literature on enhancing communication skills training in nursing and midwifery students shows that the quality of evidence is generally low. This study has implications on how

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communication is handled in nursing schools and demonstrated which communication has high evidence.

Systematic Review Registration: This systematic review was not registered in a registry.

Keywords: Communication; delivery of health care; education; midwifery; nurses; systematic review.

ABBREVIATIONS

CINAHL: Cumulative Index of Nursing and Allied Health Literature
GRADE: The Grading of Recommendations Assessment, Development and Evaluation
JBI: Joana Briggs Institute
OSCE: Objective Structured Clinical Examinations
PRISMA: Preferred Reporting Items for Systematic reviews and Meta-Analyses

1. INTRODUCTION

The literature review was set out to do a review of studies on effectiveness of communication skills training for nursing and midwifery students. Studies have shown the important role effective communication plays in nurses and midwives' interaction with patients.

Communication skills is reported to be of high importance for nursing and midwifery practice [1]. Communication skills refers to how actions are used in sending messages [2]. The necessity for nurses and midwives to be good communicators has been demonstrated [3]. Researchers have demonstrated that there are better health outcomes with the use of good communication [4,5]. Good communication skills is said to be an essential skill for nurses and midwives [6].

The recognition for education in communication has been reported by researchers [7–10]. Good communication is based on individual differences. However, it has been reported that training and experience can enhance it [11]. Effective communication skills enable nurses and midwives to have a good knowledge and understanding of their patients. In contrast, ineffective communication may lead to an increased number of medical errors and reduced quality of patient care [8].

Experimental communication is reported to be more effective than discussion [12,13]. Other reported effective methods are simulations [14–16], role-play [17–20] and Objective Structured Clinical Examinations (OSCE) [21–24].

To account for systematic reviews on communication skills training for nursing and midwifery students, searches in Ovid Medline, Ebscohost CINAHL, Cochrane Library for systematic reviews, Joana Briggs Institute (JBI) Database of systematic reviews and implementation reports were performed in September 2018 and 2 systematic reviews were published [25,26].

One of the reviews was on “Communication skills training in healthcare: a review of the literature. They reported that there were relatively lack of sound research studies on the nature and effectiveness of communication skills teaching” [25].

The second review was on “Effective teaching of communication to health professional undergraduate and postgraduate students: a systematic review”. The researchers concluded that there were limited studies in this area [26].

In a Cochrane review entitled “Communication skills training for healthcare professionals working with people who have cancer” from a total of 5,742 included studies, only 6 studies were on nurses [27]. The authors concluded that various types of training in communication skills seemed effective in enhancing some types of communication skills in healthcare personnel. However, the review pointed out that the sustenance of effectiveness of communication skills training with time cannot be determined [27].

Appraisal of the methodological designs of the reviews showed lack of studies specific to nursing and midwifery students. Also, the period between the first systemic review in 2002 [25] and a second review in 2012 [26] is quite long. This current review will add to the literature and offer an appreciation for the need to provide communication skills training for nursing and midwifery students. Therefore, how can communication skills training for nursing and midwifery students be made effective and
relevant? The objective was to examine the literature on the quality of evidence of communication skills training for nursing and midwifery students on patients’ outcome in nursing and midwifery colleges.

2. METHODS

This systematic study investigated the literature on the quality of evidence of communication skills training for nursing and midwifery students on patients’ outcome in nursing and midwifery colleges.

Firstly, searches in the databases of Ovid Medline (1946 - present) and Ebscohost CINAHL (1960 - present) to find relevant studies were conducted. The initial search was in January 2016 by MA and AMS and a re-run in August 2018 by AM for updates to account for any publications that have been disseminated in the meantime. Presented in Table 1 is the full search strategy.

Secondly, there was hand searching of journals from Africa conducted by AMS. Three journals from Africa that were searched were the International Journal of Africa Nursing Sciences, Africa Journal of Nursing and Midwifery, and African Journals Online.

Thirdly, MA and AMS searched the reference lists of studies to find additional studies.

Table 1. Search strategy

<table>
<thead>
<tr>
<th>Ebscohost CINAHL – August 2015, re-run from January 2013</th>
<th>Ovid MEDLINE (R) in-process &amp; other non-indexed citations and Ovid &lt;1946 to Present&gt; August 2018, re-run from January 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 MH &quot;Education, Nursing, Diploma Programs&quot; (588)</td>
<td>1 Schools, Nursing/ (5405)</td>
</tr>
<tr>
<td>S2 MH &quot;Schools, Nursing&quot; (8,329)</td>
<td>2 Students, Nursing/ (17725)</td>
</tr>
<tr>
<td>S3 MH &quot;Students, Nursing++&quot; (23,714)</td>
<td>3 ((student? or pupil? or school?) adj2 (nurs* or midwi*)).tw. (22755)</td>
</tr>
<tr>
<td>S4 TI ((student# OR pupil# OR school#) N2 (nurs* OR midwi*)) (14,340)</td>
<td>4 or/1-3 (35446)</td>
</tr>
<tr>
<td>S5 AB ((student# OR pupil# OR school#) N2 (nurs* OR midwi*)) (18,008)</td>
<td>5 Communication/ed [Education] (9)</td>
</tr>
<tr>
<td>S6 S1 OR S2 OR S3 OR S4 OR S5 (42,427)</td>
<td>6 (communication adj2 (skills or training or program* or education*)).tw. (9959)</td>
</tr>
<tr>
<td>S7 MH &quot;Communication Skills Training&quot; (1,451)</td>
<td>7 or/5-6 (9965)</td>
</tr>
<tr>
<td>S8 MH &quot;Communication Skills&quot; (3,691)</td>
<td>8 4 and 7 (295)</td>
</tr>
<tr>
<td>S9 MH &quot;Communication/ED&quot; (182)</td>
<td>9 randomised controlled trial.pt. (405863)</td>
</tr>
<tr>
<td>S10 TI (communication N2 (skills OR training OR program* OR education*)) (1,296)</td>
<td>10 controlled clinical trial.pt. (91271)</td>
</tr>
<tr>
<td>S11 AB (communication N2 (skills OR training OR program* OR education*)) (4,484)</td>
<td>11 randomi?ed.ab. (394826)</td>
</tr>
<tr>
<td>S12 S7 OR S8 OR S9 OR S10 OR S11 (9,131)</td>
<td>12 placebo.ab. (166576)</td>
</tr>
<tr>
<td>S13 S6 AND S12 (580)</td>
<td>13 drug therapy.fs. (1814688)</td>
</tr>
<tr>
<td>S14 MH &quot;Treatment Outcomes++&quot; OR MH &quot;Experimental Studies++&quot; OR random* (329,393)</td>
<td>14 randomly.ab. (237251)</td>
</tr>
<tr>
<td>S15 S13 AND S14 (89)</td>
<td>15 trial.ab. (342478)</td>
</tr>
<tr>
<td>S16 S10 AND S11 (3118854)</td>
<td>16 groups.ab. (1482123)</td>
</tr>
<tr>
<td>S17 or/9-16 (3624121)</td>
<td>17 exp animals/ not humans/ (4082574)</td>
</tr>
<tr>
<td>S18 S17 AND S16 (3118854)</td>
<td>19 17 not 18 (3118854)</td>
</tr>
<tr>
<td>S19 S13 AND S17 (18)</td>
<td>20 8 and 19 (52)</td>
</tr>
</tbody>
</table>
Fourthly, there were consultations with professionals by MA in the area of communication skills training and the leadership of Ghana Nurses and Midwives Association.

2.1 Search Strategy

The key words and terms used in the searches were: communications skills training, communication skills, education, nursing, midwifery, diploma programmes, students, school, randomised controlled trial, controlled clinical trials (Table 1). Studies identified from these searches were entered into Zotero bibliographic software and duplicates were removed.

2.2 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria are presented in Table 2.

2.3 Data Extraction and Quality Assessment

The researcher (AM) conducted the database searches and reviewed the study titles to exclude those that were obviously ineligible. The abstracts of the remaining studies were used in identifying studies that were potentially eligible. Thereafter, reviews of the full texts of all studies were conducted for potentially eligible studies. Then, the reference lists of the selected full-text studies were examined and AMS did follow-up reviews of the additional studies for potential inclusion.

Table 2. Literature review inclusion and exclusion criteria

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Population of nursing students and midwifery students.</td>
</tr>
<tr>
<td>- Studies and interventions that involved evaluating communication skills training programmes in nursing and midwifery students regardless of duration, type, frequency and timing of the intervention.</td>
</tr>
<tr>
<td>- Studies that used experimental studies, quasi-experimental studies and mixed methods.</td>
</tr>
<tr>
<td>- Outcome measures were on students and midwifery student’s communication skills with patients.</td>
</tr>
<tr>
<td>- English language studies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Students in nursing colleges other than students and midwifery students.</td>
</tr>
<tr>
<td>- Studies and interventions that does not involve evaluating communication skills training programmes in students and midwifery students.</td>
</tr>
<tr>
<td>- Studies that did not use randomised control trials (RCT), pseudo-randomised trials, experimental studies, and quasi-experimental studies.</td>
</tr>
<tr>
<td>- Outcome measures that were not on students and midwifery students’ communication skills with patients.</td>
</tr>
<tr>
<td>- Non-English language studies.</td>
</tr>
</tbody>
</table>

2.4 Data Analysis

Extraction of descriptive data on author, number of participants, age, and gender were summarised.

The Grading of Recommendations Assessment, Development and Evaluation (GRADE) system [28] was used in summarising the total quality of evidence.

3. RESULTS

3.1 Search Results

Searches in Ovid Medline, Ebscohost, CINAHL, International Journal of Africa Nursing Sciences, Africa Journal of Nursing and Midwifery, African Journals Online databases and other sources yielded 151 citations. After removing 20 duplicate studies, 131 studies remained. Of these, 111 studies were removed because they did not meet the inclusion criteria. Detailed examinations of the full texts of the remaining 20 abstracts were conducted. A total of 20 studies were identified for inclusion in the review. Out of the 20 studies only 10 studies evaluated communication skills training for nursing and midwifery students and therefore were included (6,29–37). The main reasons for excluding studies were as follows: 3 were explorative studies, 1 was Persian language, 2 were Korean language, 1 was Arabic language and 3 studies were on information technology. The process of selection of studies that were included in qualitative
3.2 Descriptive Statistics of Included Studies

Descriptive statistics of included studies are on author, number of participants, age, and gender. Results of the descriptive data are presented in Table 3. The author, design, country and setting, intervention and comparison are presented in Table 3. There was one study each from Iran, Taiwan, China, Canada, Australia, Turkey, South Korea, and the United States of America (USA). Two of the studies Daniels et al. [29] and Norris [30] countries and settings were not determined because they were not provided in their studies.

3.3 Data Synthesis

3.3.1 Characteristics of included studies

In this review, various designs were used for communication skills training in the studies included. There was one each of the following: experimental observer-blinded pre-test post-test; experimental (with covariate); experimental (randomised controlled trial); experimental (pre-test post-test); factorial design with random assignment; pre-post-test (quasi-experimental); non-equivalent control with pre-test post-test; quasi-experimental two-group post-test; and two mixed method (quantitative and qualitative) (Table 3).

Fig. 1. PRISMA Flowchart of selection process - Moher et al. [38]
Table 3. Descriptive statistics of included studies

<table>
<thead>
<tr>
<th>Nr</th>
<th>Study</th>
<th>N</th>
<th>Age (years)</th>
<th>Females</th>
<th>Males</th>
<th>Design</th>
<th>Country and setting</th>
<th>Intervention and comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Baghcheghi et al. [31]</td>
<td>34</td>
<td>19-22</td>
<td>18</td>
<td>16</td>
<td>Experimental observer-blinded, pre-test post-test</td>
<td>Iran</td>
<td>Traditional learning and cooperative learning methods</td>
</tr>
<tr>
<td>2</td>
<td>Daniels et al. [29]</td>
<td>53</td>
<td>18-36</td>
<td>36</td>
<td>0</td>
<td>Experimental – with covariate</td>
<td>-</td>
<td>Micro-counselling training</td>
</tr>
<tr>
<td>3</td>
<td>Hsu et al. [32]</td>
<td>116</td>
<td>20-39</td>
<td>116</td>
<td>0</td>
<td>Experimental – randomised controlled trial</td>
<td>Taiwan</td>
<td>scenario-based simulation course</td>
</tr>
<tr>
<td>5</td>
<td>McDaniel [34]</td>
<td>53</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Experimental- pre-test post-test</td>
<td>Canada</td>
<td>Assertion education</td>
</tr>
<tr>
<td>6</td>
<td>Mullan and Kothe [6]</td>
<td>09</td>
<td>18-49</td>
<td>191</td>
<td>17</td>
<td>Mixed methods- quantitative and qualitative</td>
<td>Australia</td>
<td>Counselling and communication course</td>
</tr>
<tr>
<td>7</td>
<td>Norris [30]</td>
<td>147</td>
<td>20-55</td>
<td>147</td>
<td>0</td>
<td>Factorial design with random assignment</td>
<td>-</td>
<td>Role-play and lecture instruction.</td>
</tr>
<tr>
<td>8</td>
<td>Ozcan et al. [35]</td>
<td>83</td>
<td>19-20</td>
<td>83</td>
<td>0</td>
<td>pre-post-test quasi-experimental</td>
<td>Turkey</td>
<td>Structured empathy course</td>
</tr>
<tr>
<td>9</td>
<td>Yoo and Chae [36]</td>
<td>47</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>Non-equivalent control with pre-test post-test design</td>
<td>South Korea</td>
<td>Video-based peer review</td>
</tr>
<tr>
<td>10</td>
<td>Zavertnik et al. [37]</td>
<td>41</td>
<td>19-32</td>
<td>41</td>
<td>0</td>
<td>Quasi-experimental two-group post-test</td>
<td>USA</td>
<td>Role play</td>
</tr>
</tbody>
</table>

Legend: N = sample; NA = Not available
Table 4. Summary of findings

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Relative effect (95% CI)</th>
<th>No of participants (studies)</th>
<th>Quality of the Evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative learning and traditional learning</td>
<td>not estimable</td>
<td>68 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Learner-centred training course</td>
<td>not estimable</td>
<td>62 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Innovative Approach</td>
<td>not estimable</td>
<td>41 (1 Randomised control trial)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Structured empathy course</td>
<td>not estimable</td>
<td>226 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Peer Review</td>
<td>not estimable</td>
<td>47 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Role-play</td>
<td>not estimable</td>
<td>147 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Structured empathy</td>
<td>not estimable</td>
<td>257 (1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Self-rated ability</td>
<td>not estimable</td>
<td>249(1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Assertion Education</td>
<td>not estimable</td>
<td>53(1 observational study)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
<tr>
<td>Scenario-based stimulation</td>
<td>not estimable</td>
<td>232 (1 Randomised control trial)</td>
<td>⨁◯◯◯ LOW</td>
</tr>
</tbody>
</table>

Grade Working Group grades of evidence

“High quality: We are very confident that the true effect lies close to that of the estimate of the effect,
Moderate quality: We are moderately confident in the effect estimate: The true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different,
Low quality: Our confidence in the effect estimate is limited: The true effect may be substantially different from the estimate of the effect,
Very low quality: We have very little confidence in the effect estimate: The true effect is likely to be substantially different from the estimate of effect” [28]

3.2.2 Summary of the total quality of evidence

In this review, quality assessment using the Grading of Recommendations Assessment, Development and Evaluation GRADE system [28] found that out of the 10 studies that were included, only one was of moderate quality evidence. The other nine studies were of low quality (Table 4).

4. DISCUSSION

4.1 Summary of Evidence

In this review, Lau and Wang [33] reported that learner-centred communication skills training has been effective in enhancing communication skills. Zavertnik [37], agrees with the claim by Lau and Wang [33] and reported that an intervention group did improved than the control group ($p = .0257$). On the other hand, Scenario-based learning has been reported to be effective than traditional communication skills training [32]. Furthermore, the effect of empathy and communication skills course has been reported to have positive influence on both female and male students empathy communication skills [35]. A similar study by Daniels et al. [29], reported that an experimental group made lesser communication mistakes after training. However, the study did not provide the population and the year in which the study was conducted.

Mullan and Kothe [6] had reported that a nurse training course made students to be satisfied. The findings by Mullan and Kothe [6] are in agreement with Yoo and Chae [36] studies, that also reported that peer-review is an effective communication skills learning method for nursing students. However, Yoo and Chae [36] reported that one item was excluded from the assessment tool as being inappropriate to the study and yet
did not mentioned the item or provide reasons for the exclusion. In contrast to the effectiveness of communication skills training, Norris [30] found that there were no differences in overall mean performance in role-play and lecture instruction method.

Furthermore, there is a report of no statistically significant difference between traditional learning and cooperative learning methods in teaching nursing students' communication skills [31].

Another method that has been reported to be of statistically significant difference is assertive training \( (p < .05) \) one tailed t-test \( (1.99, 47.9 \text{ df}; p = .025) \) [34].

A study on the effect of Communication Skills Training on Quality of Care, Self-Efficacy, Job Satisfaction and Communication Skills Rate of Nurses in Hospitals of Tabriz, Iran reported that there is no significant difference between mean of job satisfaction scores of the two groups [39].

5. LIMITATIONS

The number of included studies was 10 and this is small. A larger number of included studies can lead to a good generalisation.

6. CONCLUSIONS

The above review of the current literature on enhancing communication skills training in nursing and midwifery students shows that the quality of evidence is generally low. There is also evidence that there is lack of research on communication skills training for nursing and midwifery students as one of the reviews was on “Communication skills training in healthcare: a review of the literature. They reported that there were relative lack of sound research studies on the nature and effectiveness of communication skills teaching” [25] and another on “Effective teaching of communication to health professional undergraduate and postgraduate students: a systematic review” concluded that there were limited studies in this area [26].

There are few studies on nursing and midwifery student’s communication skills training. More so the available studies have used different methods for communication skills training. Therefore, this literature review will complement the emerging literature base on nursing and midwifery communication skills training.

7. RECOMMENDATIONS

The review of nursing and midwifery communication skills training should be a continuous process since new technologies are available almost on daily bases.

This review will recommend an enhancement in communication skills training in nursing and midwifery students since the quality of evidence is generally low.

There should be a continuous search by researchers for evidence base communication skills training for nursing and midwifery students.

CONSENT

It is not applicable

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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