A systematic review of qualitative studies exploring peer learning experiences of undergraduate nursing students

Nelwati a,b, Khatijah Lim Abdullah a,⁎, Chong Mei Chan a

a Department of Nursing Science, Faculty of Medicine, University of Malaya, 50603 Kuala Lumpur, Wilayah Persekutuan, Malaysia
b Faculty of Nursing, Universitas Andalas, Padang 25166, Sumatera Barat, Indonesia

ARTICLE INFO

Keywords:
Experience
Education
Peer learning
Nursing
Undergraduate students

ABSTRACT

Background: Peer learning experiences have been reported in previous qualitative studies, however individual findings could limit practical leverage due to small sample size. Thus it is necessary to integrate invaluable findings from various qualitative studies to consider appropriateness and acceptability of peer learning in professional nurse education.

Objective: To identify and synthesize qualitative evidence of peer learning experiences of undergraduate nursing students so as to understand their perceptions on peer learning experiences.

Design: A qualitative systematic review was conducted in accordance with the Enhancing Transparency in Reporting the Synthesis of Qualitative Research (ENTREQ) statement.

Data sources: Database searching was conducted on electronic databases such as Cumulative Index to Nursing and Allied Health Literature (CINAHL), Science Direct, and MEDLINE that published from 2007 to 2017.

Review Methods: Qualitative studies were appraised using the Critical Appraisal Skills Programme (CASP).

Thematic analysis was used to analyse the data using line by line coding, organising coding into descriptive themes, and interpreting further to generate new insights.

Results: Six studies were included in this review. The most common themes identified were integrated into two new insights including personal development and professional development.

Conclusion: This review has revealed that peer learning experiences contribute to the learning process of undergraduate nursing students in preparing them to become professional nurses through personal development and professional development.

1. Introduction

The implementation of effective and efficient learning strategies is important to prepare undergraduate nursing students for their future careers. One of the keys to achieving favourable learning outcomes or competencies is by actively involving students in the learning process (Fayombo, 2012). Given global shifts in learning paradigms, from teacher-centred learning (TCL) to student-centred learning (SCL), SCL provides opportunities for nursing students to learn actively and independently to gain such competencies and to foster lifelong learning (Stone et al., 2013; Young and Paterson, 2007). Peer learning is one approach of SCL that allows students to learn with and from peers to gain learning outcomes including teamwork, critical thinking, communication, and skills (Boud, 2001). By engaging with peers, students learn and develop competencies faster compared to if they are to learn and perform alone (Ladyshewsky, 2010; Roberts, 2009).

Peer learning has appeared to be an effective, advantageous, and innovative educational intervention for undergraduate nursing students during their learning process (Goldsmith et al., 2006; Iwasiw and Goldenberg, 1993; McKenna and French, 2011; Secomb, 2008; Stone et al., 2013). They can learn from and with their peers, not only in the classroom and the laboratory, but also in the clinical setting by appreciating relationship and friendship (Boud, 2001; Roberts, 2009). During clinical practice, peers are valuable sources of information and enable students to develop their own community (Roberts, 2009). Peer learning also addresses the availability of clinical practice opportunities and the problem of heavy staff workload without compromising the quality of students’ learning in large groups (Boud, 2001; Secomb, 2008).

Qualitative studies conducted by nurse researchers have recently achieved recognition and have had significant roles in developing knowledge in nursing science (Gelling, 2015; Morse, 2015).

⁎ Corresponding author.
E-mail addresses: nelwati@nrs.unand.ac.id (Nelwati), katlim@um.edu.my (K.L. Abdullah), mcchong@um.edu.my (C.M. Chan).

https://doi.org/10.1016/j.nedt.2018.09.018
Received 10 April 2018; Received in revised form 10 September 2018; Accepted 24 September 2018
0260-6917/ © 2018 Published by Elsevier Ltd.
Synthesizing findings from multiple qualitative studies is valuable as it provides in-depth meanings, experiences, and perspectives of participants to generate new conceptual or theoretical models, and offers evidence for the development, implementation, and evaluation of the intervention to assist in drawing conclusions to inform teaching and research (Bearn and Dawson, 2013; Tong et al., 2012). Thematic analysis is useful for qualitative synthesis as the process involves reading texts and coding findings into key themes to represent the meaning of data (Bearn and Dawson, 2013; Tong et al., 2012).

Peer learning has been implemented in health sciences education including medicine, nursing, midwifery, and paramedics (Irvine et al., 2017; McKenna and Williams, 2017). The understanding of nursing students’ experiences during peer learning activities would enrich the field of nursing science for evidence-based nursing practice and education. However, individual qualitative study findings appear to limit practical leverage due to small sample sizes (Speziale and Carpenter, 2011). Conducting thematic analysis of peer learning experiences of undergraduate nursing students from various qualitative studies can enhance the integration of invaluable information that can contribute to the understanding of educational practices. This can facilitate the decision making on whether or not to use a peer learning approach by considering its appropriateness and acceptability in nurse education programmes (Barnett-Page and Thomas, 2009; Bearn and Dawson, 2013).

The aim of this systematic review was to identify and synthesize qualitative evidence of peer learning experiences of undergraduate nursing students, so as to understand their perceptions on their peer learning experiences. This review addressed the question: “What are undergraduate nursing students’ perceptions of their peer learning experiences?”

2. Method

2.1. Design

This qualitative systematic review was conducted in accordance with the ENTREQ (Enhancing Transparency in Reporting the Synthesis of Qualitative Research) statement (Tong et al., 2012). The protocol was developed and agreed by the authors. It involved three stages: 1) analysis strategy development with inclusion and exclusion criteria and studies selection; 2) quality and critical appraisal and data extraction; and 3) data aggregation and findings synthesis.

2.2. Search Methods

A systematic search of databases for this review was conducted in CINAHL, Science Direct, and MEDLINE as the majority of nursing publications are published in these databases. A combination of search terms was used to identify nursing-related literature published from 2007 to 2017. Truncation symbols and database headings (MeSH) were also used in this database searching. The journals Nurse Education Today and Nurse Education in Practice were hand-searched to identify overlooked studies, but none were located. These journals were chosen since they published peer-reviewed articles related to nurse education.

2.3. Search Terms and Inclusion and Exclusion Criteria

Keywords used to retrieve relevant literature for this review included “peer learning” OR “peer teaching” OR “peer tutoring” OR “peer mentoring” OR “peer-assisted learning” AND “undergraduate nursing students”. Inclusion criteria for this review were qualitative full-text articles on peer learning experiences of undergraduate nursing students, published from 2007 to 2017 and written in English. The reviewers excluded articles that employed quantitative and mixed methods, peer learning conducted by other health sciences’ students and diploma or postgraduate nursing students, and articles written other than in English. The inclusion and exclusion criteria were outlined in Table 1.

2.4. Search Outcomes

The total number of papers returned in the initial search was 997: CINAHL (249 articles), Science Direct (234 articles), and MEDLINE (514 articles). The screening process was conducted by three reviewers (N, KLA and CMC) independently. The titles were screened and abstracts were read before retrieving the full-text articles. Only selected articles that met the inclusion criteria were recorded in the EndNote database.

Twenty-two articles were removed due to duplication and 955 articles were excluded, as they did not meet the inclusion criteria such as needing to be qualitative studies and full text articles describing peer learning experiences of undergraduate nursing students published from 2007 to 2017 and written in English. Twenty articles were retrieved for eligibility assessment. Fourteen articles were rejected, as the articles were quantitative and mixed methods studies (n = 4), did not describe peer learning as experiences (n = 6), were systematic review and tool development articles (n = 3), and peer learning was undertaken by students other than undergraduate nursing students (n = 1). Finally, six qualitative articles were included in the final review (Fig. 1).

2.5. Quality Appraisal and Data Extraction

The Critical Appraisal Skills Programme (CASP) is widely used in qualitative systematic reviews (Tong et al., 2012). This tool includes two screening questions and eight detailed questions regarding study design, sampling, data collection, reflexivity, ethical issues, data analysis, findings, and value of the research (CASP, 2013). The studies are rated as high, medium and low quality when the articles meet at least 8 of the 10 criteria, 5–7 criteria, and 4 or fewer criteria respectively (Kanavaki et al., 2016). The assessment was done by a primary reviewer (N) and confirmed by the secondary reviewers (KLA, CMC). Any discrepancies were discussed and resolved by consensus. Five studies were categorised as high-quality studies while one study was rated as a medium-quality study. Table 2 presented the CASP results.

The characteristics of each study were organized during the data extraction stage consisting of author/s and year of publication, country of origin, aims of the study, participant selection, data collection and data analysis, outcomes, and suggested research. The data extraction of the studies was outlined in Table 3.

2.6. Data Analysis and Synthesis

Thematic analysis was used to analyse the studies. Line by line coding was applied, then free coding to enable material to be organized into descriptive themes and interpreted further to generate analytical themes that offered new insights or interpretation (Barnett-Page and Thomas, 2009; Tong et al., 2012).

Table 1

<table>
<thead>
<tr>
<th>Inclusion criteria</th>
<th>Exclusion criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qualitative studies available in full-text</td>
<td>Quantitative and mixed methods studies or those not available in full-text</td>
</tr>
<tr>
<td>Articles described peer learning experiences</td>
<td>Peer learning was not described as participants’ experiences</td>
</tr>
<tr>
<td>The studies were undertaken with undergraduate nursing students</td>
<td>The studies were undertaken with other health sciences’ students, and diploma or postgraduate nursing students.</td>
</tr>
<tr>
<td>Written in English</td>
<td>Written in language other than English</td>
</tr>
<tr>
<td>Published from 2007 to 2017</td>
<td>Not published from 2007 to 2017</td>
</tr>
</tbody>
</table>
3. Results

3.1. Characteristics of Studies

The studies selected for this review were conducted in five countries including Canada, Hong Kong, Iran, South Korea, and the United Kingdom. The participants of the studies were from undergraduate nursing education programmes ranging from first to final years, involving one or more cohorts. To recruit the participants, purposive and voluntary sampling were employed. Focus groups and semi-structured interviews were conducted to collect data from participants in these studies. Furthermore, content and thematic analyses were used to analyse the qualitative data.

3.2. Overview of Methodological Quality

The majority of reviewed studies reported their findings meticulously (Chojecki et al., 2010; Christiansen and Bell, 2010; Loke and Chow, 2007; Ravanipour et al., 2015; Won and Choi, 2017). The choice of an appropriate qualitative research design and statements of study aims to address the research questions were clearly demonstrated. The semi-structured interview and focus group discussion used in the studies were suitable to collect data from participants. The studies were conducted by maintaining ethical aspects and respecting human rights in conducting a scientific research. Two studies did not describe clearly how the data were analysed and how themes were derived (Loke and Chow, 2007; Ramm et al., 2015). However, the authors provided quotes to support their findings. The authors of one study did not mention how they maintained trustworthiness of the findings (Loke and Chow, 2007).

The most common themes identified from the review were integrated into two new insights, namely: personal development and professional development as outlined in Table 4.

3.3. Personal Development

Personal development was the first insight that emerged from the reviewed qualitative studies on peer learning experiences of undergraduate nursing students. This insight was integrated from the most common themes such as enhancing self-confidence, increasing communication skills, obtaining emotional support, and gaining socialization.

The authors of all reviewed studies reported that undergraduate nursing students experienced enhanced self-confidence during their
<table>
<thead>
<tr>
<th>Authors (year)</th>
<th>Country of origin</th>
<th>Aims</th>
<th>Participant selection</th>
<th>Data collection/data analysis</th>
<th>Outcomes</th>
<th>Suggested research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chojecki et al. (2010)</td>
<td>Canada</td>
<td>To describe the perceptions of nursing students’ peer learning experiences in clinical setting</td>
<td>Convenience sample/10 sophomore nursing students, 2 clinical instructors</td>
<td>Semi-structured interview/thematic analysis</td>
<td>Theme: novelty of peer learning, you’re not alone, peer to peer communication, facilitating learning</td>
<td>Exploring how nursing students adjust to peer learning and their experiences in accordance with the educational level and organising how to implement peer learning optimally</td>
</tr>
<tr>
<td>Christiansen and Bell (2010)</td>
<td>United Kingdom</td>
<td>To explore impact of peer learning partnership among nursing students</td>
<td>Purposive sampling/54 nursing students</td>
<td>Focus group interviews/thematic analysis</td>
<td>Theme: challenges of initial practice experience, gaining acceptance, learning with peers, personal growth and development</td>
<td>Examining the effect of peer tutoring programme on nursing students</td>
</tr>
<tr>
<td>Loke &amp; Chow, 2007</td>
<td>Hong Kong</td>
<td>To facilitate the development of cooperative learning through peer-tutoring scheme</td>
<td>Voluntary participation/16 sophomore nursing students, 14 third year nursing students</td>
<td>Focus group and individual interviews/content analysis</td>
<td>Theme: enhancement of deep learning, cooperative learning, personal gains/growth, difficulties encountered in the peer-tutoring process</td>
<td>Investigating learning experiences of peer teaching to optimise the potential of this approach in order to prepare nursing students more effectively for their role as teachers and clinical leaders.</td>
</tr>
<tr>
<td>Ramm et al. (2015)</td>
<td>United Kingdom</td>
<td>To explore both first year nursing students’ and second/third year participants’ experiences and perceptions involving in a peer teaching and peer assessment</td>
<td>Voluntary participation/13 first year nursing students, 6 sophomore and third year nursing students</td>
<td>Open ended questions/qualitative Framework analysis</td>
<td>Theme: Reflection around educational preparations, approaches to learning, examination nerves and coping mechanisms, perceptions of social learning and the role of lecturers and peers, suggestions for improvements (first year nursing students) Theme: Teaching and mentorship skills, communication and breaking bad news, opportunity to demonstrate empathy, enhanced technical knowledge, value of the experience: Insight and self-awareness, practical consideration and suggestions for improvement (second/third year nursing students)</td>
<td></td>
</tr>
<tr>
<td>Ravanipour et al. (2015)</td>
<td>Iran</td>
<td>To explore nursing students’ experiences of peer learning in clinical practice</td>
<td>Purposive sampling/28 senior nursing students</td>
<td>Focus group interviews/content analysis</td>
<td>Theme: paradoxical dualism, peer exploitation, first learning efficacy, socialization practice</td>
<td>Determining the level and amount of support of peers required in clinical practice and then assess its outputs on students’ performance</td>
</tr>
<tr>
<td>Won and Choi (2017)</td>
<td>South Korea</td>
<td>To explore peer mentors’ experiences undertaking peer mentoring</td>
<td>Voluntary participation/15 nursing students</td>
<td>Focus group/content analysis</td>
<td>Theme: Taking pride, guiding mentees, coping with conflicts and building leadership. Core theme: Self-growth as a leader</td>
<td>Conducting the same study to other populations and disciplines and investigating this scheme on larger sample.</td>
</tr>
</tbody>
</table>
learning process that used peer learning programmes such as peer mentoring, peer teaching, peer-assisted learning, and peer tutoring. Won and Choi (2017) conducted a qualitative study to explore and understand the experiences of fifteen student mentors who participated in the peer mentoring programme from two nursing schools in South Korea. Prior to the use of focus group discussions (FGDs) as a data collection method, the concept of mentoring and accomplished peer mentoring programme was introduced to the student mentors. Content analysis was utilized to analyse FGD transcripts. Ethical approval was granted prior to data collection. The authors described how the student mentors pursuing the mentoring programme were able to build their confidence (Won and Choi, 2017).

Similarly, the authors of other reviewed studies also reported increases in students’ self-confidence (Chojecki et al., 2010; Christiansen and Bell, 2010; Loke and Chow, 2007; Ramm et al., 2015; Ravanipour et al., 2015). Ravanipour et al. (2015) explored the experiences of peer learning among twenty-eight purposively recruited Iranian undergraduate nursing students during their clinical posting. Focus group discussions led by semi-structured questions were conducted to elicit graduate nursing students during their clinical posting. Focus group discussions were employed to collect data from twenty-eight purposively recruited Iranian undergraduate nursing students. The authors described how the student mentors pursuing the mentoring programme were able to build their confidence (Ravanipour et al., 2015).

Table 4
Most common themes among reviewed qualitative studies.

<table>
<thead>
<tr>
<th>Themes</th>
<th>$S1$</th>
<th>$S2$</th>
<th>$S3$</th>
<th>$S4$</th>
<th>$S5$</th>
<th>$S6$</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enhancing self confidence</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>6</td>
</tr>
<tr>
<td>Building teamwork and leadership</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Obtaining emotional support</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>4</td>
</tr>
<tr>
<td>Increasing communication skills</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>3</td>
</tr>
<tr>
<td>Developing affective skills</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>3</td>
</tr>
<tr>
<td>Acquiring technical skills</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>2</td>
</tr>
<tr>
<td>Gaining socialization</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>2</td>
</tr>
<tr>
<td>Sharing tasks and responsibility</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>2</td>
</tr>
<tr>
<td>Demonstrating empathy and friendship</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>2</td>
</tr>
<tr>
<td>Systematic approach to learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>−</td>
<td>+</td>
<td>2</td>
</tr>
<tr>
<td>Critical thinking and problem solving</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Enhancing deep learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Cooperating in learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Time management</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Passivity in learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Time commitment and punctuality</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Mismatched personal and learning style</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Adjusting to peer learning</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>2</td>
</tr>
<tr>
<td>Communication discomfort</td>
<td>+</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Challenges of initial practice experiences</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Gaining acceptance</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Enhancing self-esteem</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Developing teaching skills</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Reflections around educational preparation</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Approaches to learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Learning to give constructive feedback</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Value of the experience: Insight and self-</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>awareness</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Perceptions of social learning</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Role of lecturers and peers</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Examination nerves and coping mechanism</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Decreasing practical mistakes</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>First learning efficacy</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>1</td>
</tr>
<tr>
<td>Coping with conflicts</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>−</td>
<td>+</td>
<td>1</td>
</tr>
</tbody>
</table>

transcribed and analysed using thematic analysis. Trustworthiness and ethical consideration were also ensured for this study. Within the theme of ‘Peer-to-peer communication’, there existed a sub-theme of positive exchange through positive feedback among peers that could lead to an increase of self-confidence (Chojecki et al., 2010).

Loke and Chow (2007), another study in Hong Kong, conducted a qualitative study to facilitate the development of cooperative learning among undergraduate nursing students through a peer tutoring programme of an hour-long tutoring session once a week throughout the semester. Fourteen undergraduate nursing students in their third year (peer tutors) and sixteen nursing students in their second year (tutees) were recruited to attend focus group and individual interviews. The participants raised pertinent issues in the group interviews were invited for further individual interviews. Content analysis was applied to analyse the data. The ethical issue of research participants was addressed and ensured, but trustworthiness of data was not identified in the study. During the tutoring process, peer tutors were required to answer questions from tutees. This was meant to ensure that the peer tutors were well-prepared and would go on to provide them with the confidence to answer questions from the tutees (Loke and Chow, 2007).

Peer encouragement and support during peer learning partnership could also enhance self-confidence among nursing students (Christiansen and Bell, 2010). An interpretive qualitative study was conducted by Christiansen and Bell (2010) to explore the impact of a peer learning partnership among nursing students in their clinical practice. Focus group discussions were employed to collect data from five undergraduate nursing students who were selected purposively. Data were analysed using thematic analysis. Ethical approval was granted by the faculty research committee and trustworthiness was also established. The findings reported some of the themes involved: challenges of initial practice experiences, gaining acceptance, learning with peers, and personal growth and development.

The authors of three reviewed articles reported that the peer learning programme enabled undergraduate nursing students to increase their communication skills with peers (Chojecki et al., 2010; Loke and Chow, 2007; Ramm et al., 2015). Peer communication takes place when discussing patient cases, teaching one another, and providing verbal feedback (Chojecki et al., 2010; Ramm et al., 2015). During peer interaction, respectful attitudes are developed towards one another thus improving undergraduate nursing students’ communication skills (Loke and Chow, 2007). The opportunity available to undergraduate nursing students to teach and explain ideas in different ways to peers enhances their communication skills. Furthermore, Chojecki et al. (2010) stated that peer-to-peer communication plays an important role in peer learning experiences among undergraduate nursing students (Chojecki et al., 2010).

The peer learning approach also offers undergraduate nursing students emotional support during their clinical practice (Chojecki et al., 2010; Christiansen and Bell, 2010; Ravanipour et al., 2015). The students found that their relationships with the senior students provided emotional support that could reduce anxiety, since it also provided a non-threatening learning environment. In addition, the undergraduate nursing students also experienced feelings of safety as relationships among peers were tied to feelings of empathy and friendship (Christiansen and Bell, 2010). By having peers during the duration of their clinical practice, undergraduate nursing students did not feel alone as they had peers to discuss and debrief with on difficult cases (Chojecki et al., 2010). Peer learning also allowed the students to learn without feelings of stress and reduced anxiety when mistakes were made (Ravanipour et al., 2015).

Gaining socialization is also part of the personal development of new insights during the peer learning approach (Loke and Chow, 2007; Ravanipour et al., 2015). During the peer learning sessions, tutors and tutees gained socialization by making new friends and valuing the friendship and relationship. They trusted each other and shared their concerns about their future jobs (Loke and Chow, 2007). Through
socialization, the undergraduate nursing students would identify their own characteristics and those of their peers. Thus, they should be aware of their negative characteristics, so they could control them while interacting with peers (Ravanipour et al., 2015).

3.4. Professional Development

Professional development was the second insight that emerged from the reviewed qualitative studies. This insight was integrated from the most common themes of reviewed studies such as building teamwork and leadership, enhancing cognitive skills, acquiring technical skill, and developing affective skills.

The majority of authors reported that peer learning had contributed to the development of teamwork and leadership among undergraduate nursing students in order to prepare them towards becoming professional nurses (Chojecki et al., 2010; Ramm et al., 2015; Ravanipour et al., 2015; Won and Choi, 2017). Chojecki et al. (2010) stated that undergraduate nursing students mentioned collaboration as important to organize assessment, physical tasks, and charting during clinical practice. Furthermore, learning together offered them more opportunities to facilitate learning around tasks, which could promote teamwork (Chojecki et al., 2010). Teamwork establishment also led to professional relationships that integrated the nursing team by working together to achieve the same aims and to graduate as professional nurses. Thus, these experiences of peer learning offered the students valuable opportunities for their future professional work (Ramm et al., 2015) and for them to learn how to establish good teamwork (Ravanipour et al., 2015). Good teamwork requires a leader who can manage the team well. As Won and Choi (2017) argued, peer mentoring trained students towards becoming leaders who could better lead their peers, and to appreciate these relationships.

The reviewed articles suggested that peer learning also contributes to enhancement of undergraduate nursing students’ cognitive skills (Christiansen and Bell, 2010; Loke and Chow, 2007; Won and Choi, 2017). Loke and Chow (2007) revealed that their participants experienced great benefits from peer tutoring that included cognitive skills development, which closely related to their professional development. The development of critical thinking and problem-solving skills was also acquired during the peer tutoring process. Furthermore, deep learning processes allowed students to be more organized in their learning and reflective thinking, as well as integrating theory with practice (Loke and Chow, 2007). Similarly, the ability of reflective thinking was also acquired during their peer learning partnership as the students needed to organize, simplify, and clarify the explanation of knowledge prior to offering it to other peers (Christiansen and Bell, 2010).

Acquiring technical skills, such as nursing procedures and patient education are necessary to deliver professional nursing care, skills that are developed during the peer learning process (Ramm et al., 2015; Ravanipour et al., 2015). The Iranian undergraduate nursing students experienced enhancement of their technical skills performance during peer learning in clinical practice since there was a reduction of mistakes, enabling the students to perform the procedures precisely (Ravanipour et al., 2015). The development of teaching skills would allow the students to teach and advocate for patients in their daily practice (Ramm et al., 2015).

Undergraduate nursing students also experienced development of affective skills during the peer learning process (Christiansen and Bell, 2010; Loke and Chow, 2007). Christiansen and Bell (2010) argued that the positive relationships between peers during peer learning processes would encompass empathy and feelings of safety. Additionally, students would develop a sense of responsibility and time management during the peer tutoring session (Loke and Chow, 2007).

4. Discussion

This systematic review has demonstrated that peer learning experiences contribute to the learning process of undergraduate nursing students in preparing them to become professional nurses through personal development and professional development. Self-confidence is an important aspect for undergraduate nursing students as it enables them to provide and deliver nursing care accurately and effectively (Porter et al., 2013). Furthermore, McKenna and French (2011) asserted that peer teaching enabled final year nursing students to increase their confidence in knowledge and teaching abilities that would be beneficial for them in graduate years. Thus, promoting self-confidence among undergraduate nursing students at the earlier stages of the nurse education programme has come to the attention of nurse educators to help them acquire new knowledge and skills (Lundberg, 2008; McCabe et al., 2016).

By gaining social skills, effective communication can be established to develop relationships of therapeutic benefits, education of patients, and communication with colleagues, patients, and their families that needs to be a correct and prompt response to acknowledge their reactions (McKenna et al., 2014; Senyuva et al., 2014). On the other hand, lack of communication skills could lead to negative impacts on the health services provided to patients (Noroziinia et al., 2016).

Further, the issue that undergraduate nursing students experienced significant stress and anxiety during their nursing education programme has also been reported, in which the stressors are perceived as feelings of pressure (Galbraith and Brown, 2011; Nelwati et al., 2013). Several intervention strategies to cope with stress and anxiety among nursing students have been addressed, one of them is peer learning programmes that have the potential to reduce stress and anxiety among these students (McKenna and French, 2011; Turner and McCarthy, 2017).

Teamwork in nursing is key to achieving goals of patient treatment, patient care outcomes, patient safety, and to ensure the care of patients is effective and efficient (Goosen, 2015). Teamwork should develop during the learning process of undergraduate nursing students, as they will work together with other health teams in their future work. During teamwork performance, students would also interact and relate to each other, giving rise to the need for leadership development to ensure smooth operation of teamwork (Goosen, 2015).

Peer learning promises to enhance cognitive skills, promote technical skills acquisition and develop affective skills of undergraduate nursing students. It has been proven to improve cognitive and psychomotor skills as well as academic performance that essential for their learning process (El-Sayed et al., 2013; Iwasiw and Goldenberg, 1993). In addition, cognitive skills such as deep learning, critical thinking, problem solving, and reflective thinking skills are essential to be acquired by students in order to provide professional, effective, therapeutic, and safe nursing care to their patients by making clinical decisions and judgement (LaMartina and Ward-Smith, 2014; Potgieter, 2012; Van Graan et al., 2016). Integration of critical thinking strategies into nursing curriculum has shifted away from traditional approaches, in order to cultivate higher-order cognitive skills and empower students as lifelong learners (Burrell, 2014; Potgieter, 2012). Peers are a source of support and information during the learning process and are valuable resources for nursing students to learn technical or psychomotor skills performances (Aldridge, 2017; Roberts, 2009). Meanwhile, affective skills involved in emotional intelligence include attitudes, feelings, and motivation to ensure professional identity and value recognition to develop professionalism, of which to nurture affective skills requires teaching and learning strategy (Einhellig et al., 2015).

4.1. Implications for Nursing Education and Practice

The review suggests that peer learning enables undergraduate nursing students to gain better skills and competence during their
professional nursing education through personal development and professional development. Implications of the reviewed studies’ findings for nurse educators may include introducing and designing effective peer learning programmes. These would adequately prepare students and ensure the currency and relevance in nursing practice. Introduction of peer learning to students prior to its application would be beneficial to attract students’ attention by highlighting definition, effects, benefits, strategies and techniques of peer learning. A one-day workshop of peer learning could be arranged and attended by the students. Having good introduction to peer learning activities would allow students to participate actively, motivate each other and step forward together in their practice. Peers as a source of support could help to empower each nursing student to acquire professionalism in nursing. Peer learning would also facilitate increased self-confidence, communication, clinical skills, teamwork, and leadership skills in a less threatening environment. Nurse educators involved in such programmes should be trained to improve their attitudes towards peer learning. This is in line with the transformation in global nurse education in preparing professional nurses by replacing traditional and passive learning strategies to active learning strategies (Young and Paterson, 2007). It is hoped that by having well-organized programmes both nursing educators and nursing students would gain positive impact from peer learning particularly in developing professionalism. The effectiveness of peer learning on learning outcomes and competence development among undergraduate nursing students should be explored so recommendations for nursing curriculum and practice development can be made to improve nursing care for patients.

5. Conclusion

The current systematic review identified two new insights or themes of peer learning experiences of undergraduate nursing students: personal development and professional development. The experiences allowed them to enhance self-confidence, increase communication skills, obtain emotional support, and gain socialization, which in turn contributes to the personal development of undergraduate nursing students. Furthermore, undergraduate nursing students perceived their peer learning experiences involved in their professional development of building teamwork and leadership, enhancing cognitive skills, acquiring technical skills, and developing affective skills. Personal and professional development can equip undergraduate nursing students to prepare themselves towards becoming professional nurses who exhibit professionalism in their daily clinical practice.

Acknowledgement

Author Nelwati thanks to Universitas Andalas that provided a scholarship for her doctoral study.

Contribution

We confirm that all authors (N, KLA and CMC) have substantially contributed to the conception and design, data extraction, analysis and appraising the quality of the papers. N have drafted the article and all authors (N, KLA and CMC) revised critically for important intellectual content. Finally, all authors (N, KLA and CMC) have approved submitted version.

Conflict of Interest

The authors declare no conflict of interest.

Funding

The author Nelwati received dissertation grant from Indonesia Endowment Fund for Education (PRJ-4593/LDPD.3/2016).

References


