Authentic Learning in Healthcare Education: A Systemic Review

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Background: Clinical environments are more complex, rapidly changing and increase in the number of patients with advanced diseases. A higher level of clinical performance competencies such as clinical reasoning, problem solving in healthcare provider is demanded. To satisfy these needs, educational learning methods were changed to bridge the knowledge to practice gap. That is, scientific curricula based on authentic environment were needed.

Methods: This is a systematic review to examine the effects of learning outcome on authentic learning method. This study was performed according to the systematic reviews guideline. A literature search was conducted in PubMed, Embase, MEDLINE complete, PsycINFO, CINAHL (Cumulative Index for Nursing Allied Health Literature) with Full Text, Korean database including the KoreaMed databases up to June 2016. The searching keywords were “nur*,” “medical,” “dentist,” “pharmacist,” “students,” “healthcare personnel,” “authentic,” and “learning,” with single search terms or in combination with Boolean and wildcard. For the other eligible studies, we were identified by retrieving the cited reference lists from selected studies and major Korean academic journals, including the Asian Nursing Research, Journal of the Korean Academy of Nursing, Korean Society of Adult Nursing, the Journal of Korean Academic Society of Nursing Education. The inclusion criteria for this study were as follows: (a) research papers documenting randomized controlled trials (RCT) or control group designs targeting healthcare providers such as nurses, doctors, dentists, and students; (b) research that used authentic learning methods (i.e., no lectures) for intervention. (c) the studies were published in English or Korean language. (d) target population was an undergraduate students. We excluded a study using languages other than English and Korean. In addition, grey literature, not peer-reviewed paper such as academic report and dissertation was also excluded. Selecting of studies were conducted based on inclusion and exclusion criteria. Two independent authors who review the titles and abstracts and were screened for selected data, and researchers reviewed the full-text of original articles. Discrepancies or conflicts between researchers were resolved by discussion until reaching agreement.

Results: Following the primary search, 1,259 studies were found by reviewing searching the databases; 878 studies remained after redundant literature was eliminated. Upon reviewing various titles and abstracts, 766 studies were excluded. The 112 studies that satisfied each of the selection standards were identified. The 99 studies excluded as follows; 64 studies were non RCT, 21 studies were master or doctoral thesis, 6 studies non authentic learning, and 8 studies non undergraduate students. The thirteen studies selected for systemic review. Three studies were nursing education, eight were conducted within the medical education, one was nutrition and one study was conducted psychology students. Two studies were published in 2006; three of them were published in each of 2009, 2014, 2017, two studies were published 2011, two of them were 2012, two were 2015, and two articles were published 2016. Of the thirteen studies selected studies, three studies used to problem-based learning (PBL), two were used virtual simulation authentic learning method, two used DVD and standardized patient (SP), two used e-learning, one used mobile learning, one used authentic assess pedagogy, one used three-dimensional (3D) digital animation and one article used to case-based learning. Regarding the research design employed by the studies, five used randomized controlled trials, while eight used a quasi-experimental design as control group. Final selected studies represented that authentic learning undergraduate students fostered performance skills (46%), knowledge (38%), satisfaction, comprehensive competency, problem solving, communication (15%) and other competency (e.q., learning motivation, critical thinking,
critical judgment). In case of PBL, web-based or video assisted PBL was more effective authentic learning effect than traditional PBL.

Conclusion: This research represented that authentic teaching and learning methods were generally effective at enhancing learners’ cognitive, psychomotor, affective domain of competency. Especially, technology combined such as a web-based or e-learning eliminated academic boundary for education. It provided more collaborative and constructive learning experiences for learners. As a result, authentic leaning contributed positive effect to interprofessional education for healthcare provider.

Title:
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Keywords:
Authentic learning, Learning outcome and Systematic review

References:


Abstract Summary:
Authentic learning is defined that learners given to opportunity to investigate the nearly as possible real clinical cases. It provided more creative and constructive learning experiences for healthcare providers. Thus scientific curricula based on authentic environment were very important to healthcare provider education

Content Outline:
1. Introduction: Clinical environments are more complex, rapidly changing and increase in the number of patients with advanced diseases. A higher level of clinical performance competencies such as clinical reasoning, problem solving in healthcare provider is demanded. To satisfy these needs, educational
learning methods were changed to bridge the knowledge to practice gap. That is, scientific curricula based on authentic environment were needed.

2. Methods: This is a systematic review to examine the effects of learning outcome on authentic learning method. This study was performed according to the systematic reviews guideline. A literature search was conducted in PubMed, Embase, MEDLINE complete, PsycINFO, CINAHL (Cumulative Index for Nursing Allied Health Literature) with Full Text, Korean database including the KoreaMed databases up to June 2016.

3. Results:

1) Following the primary search, 1,259 studies were found by reviewing searching the databases; 878 studies remained after redundant literature was eliminated. Upon reviewing various titles and abstracts, the thirteen studies selected for systemic review.

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4. Conclusion: This research represented that authentic teaching and learning methods were generally effective at enhancing learners’ cognitive, psychomotor, affective domain of competency. Especially, technology combined such as a web-based or e-learning eliminated academic boundary for education. It provided more collaborative and constructive learning experiences for learners. As a result, authentic leaning contributed positive effect to interprofessional education for healthcare provider.

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