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Hemşirelik Öğrencilerinde Liderlik Geliştirme Girişimleri – Bir Sistematik Derleme Protokolü

Leadership Development Interventions for Nursing Students - The Study Protocol of a Systematic Review

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ÖZET

Amaç: Bu sistematik derlemenin amacı, hemşirelik öğrencilerinde uygulanan liderlik geliştirme girişimlerinin özelliklerini ve sonuçlarını analiz etmektir.

Tasarım: Sistematik İnceleme ve Meta-Analiz Protokolleri için Tercih Edilen Raporlama Öğeleri (PRISMA-P) protokolün yapısını oluşturmuştur. Bu sistematik derleme PRISMA yönergelerine ve PROSPERO'da (CRD42020202774) önceden yayınlanmış kayda göre yapılandırılmıştır.

Veri kaynakları: Haziran-Aralık 2020 arasında, 1978-2020 arasında yayımlanan ve en az bir kantitatif yöntemin dahil edildiği çalışmalar, CINAHL, Embase, MEDLINE, WOS, Google-Scholar veritabanlarında taranmıştır.

İnceleme metodu: Öğrenciler için liderlik geliştirme girişimlerini içeren nicel ve karma yöntem çalışmalar taranmış, PICOS dahil edilme kriterlerini karşılayan 12 çalışma derlemeye dahil edilmiştir. Tarama yapılırken, Leadership AND "nurs* student*" OR "student nurs*" OR "undergraduate* nurse" OR "BSN" OR "Prelicensure nurs*" OR "pupil nurs*" OR "baccalaureate nurs*" anahtar kelimeleri kullanılmıştır. Dahil edilen çalışmaların kaliteleri Mixed Methods Appraisal Tool (MMAT) ile değerlendirilmiştir.

Bulgular: Dahil edilen çalışmaların özellikleri; yazar, yer, yıl, amaç, katılımcıların özellikleri, tasarım ve yöntem, veri araçları, güvenirlik ve geçerlik değerlendirmesi, başlıca bulgular ve sınırlamalar bölümlerinden oluşan bir form ile çıkarılacaktır. Bulgular, liderlik yaklaşımı, program yapısı, program tasarımı, uygulayıcı yeterlilikleri, öğrenci katılımı ve çıktılar şeklinde özetlenecektir.

Sonuç ve etkisi: Bu konuyla ilgili ilk sistematik derleme olduğundan, liderlik gelişimini ölçmeye yönelik araçları, girişimlerdeki unsurları ve yapıyı ortaya çıkarması beklenmektedir. Bununla birlikte, gelecekteki liderlik geliştirme girişimlerinin yapılandırılmasına katkı sağlayacağı düşünülmektedir.

Anahtar Kelimeler: Liderlik, Öğrenci hemşire, Girişim, Sistematik derleme

ABSTRACT

Purpose: The aim of the systematic review is to analyze the characteristics&outcomes of leadership development interventions implemented on nursing students.

Design: The Preferred Reporting Items for Systematic Review and Meta-Analysis Protocols (PRISMA-P) guidelines provided the structure of the protocol. The review is structured according to the PRISMA guidelines and pre-published record in PROSPERO (CRD42020202774).

Data sources: Studies in which at least one quantitative method included and published from 1978 to 2020 in English, were searched in CINAHL, Embase, MEDLINE, WOS, GoogleScholar databases, between June-December, 2020.

Review method: Quantitative and mixed method studies involving leadership development interventions for students were reviewed. 12 studies, which met the inclusion criteria based on PICOS were included. Search terms were Leadership AND "nurs*student*" OR "student nurs*" OR "undergraduate*" OR "BSN" OR "Prelicensure nurs*" OR "pupil nurs*" OR "baccalaureate nurs*". Studies were subjected to quality appraisal via the Mixed Methods Appraisal Tool (MMAT).

Results: Included studies' details will be extracted by the form consists authors, place, year, aim, characteristics of the participants, design and method, data tools, reliability&validity assessment, major findings and limitations. The findings will be summarized in leadership approach, program structure, content design, qualification, student involvement and outcomes.

Conclusion and impact: As this is the first systematic review on this topic, it is expected to reveal the tools to evaluate leadership development, elements used in the interventions and their structures. It is also expected to contribute future interventions on leadership development in terms of their structures.

Keywords: Leadership, Nursing student, Intervention, Systematic review

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INTRODUCTION

In the twenty-first century, the number of life-threatening illnesses, health expenditures and development in information and technology in healthcare have increased (NACNEP, 2010). Despite this, the limited nursing workforce is unable to meet the needs in many parts of the world (AACN, 2017; Marć et al., 2018). Thus, there is a growing need for leader nurses in order to manage such changes (Kumar & Khiljee, 2016; Lee et al., 2019). Although the need for leader nurses is defined, leadership is not a characteristic that should be possessed only by executive nurses in certain positions. Leadership skills are required for nurses as stated by the international authorities as well (WHO, 2009. p.21; IOM, 2011, p.221). Every nurse should possess it (Cherian & Karkada, 2017).

Today's nursing students will join the nurse workforce which has the highest number of members among healthcare professionals with a population of approximately 29 million (World Health Statistics, 2019). This force has a voice in important issues such as the provision of health services and the development of the profession (Slattery et al., 2016). Therefore, leadership training for nursing should begin in the undergraduate level (Grossman & Valiga, 2009; Curtis et al., 2011).

Leadership, which can be defined as an observable practice, behavioural pattern, and a definable set of skills and abilities, has a learnable nature. Leadership skills can be learned, strengthened, and developed when motivation, desire, practice, feedback, and coaching are taken into account (Kouzes & Posner, 2012, p.335). As a matter of fact, there are studies showing that leadership consists of learnable skills (Ciampa et al., 2010; Bambrick-Santoyo, 2012; Allio, 2016). Leadership programs for nursing students are effective in developing their skills (Foli et al., 2014; Marath & Ramachandra, 2015; Göktepe et al., 2018; Ha & Pepin, 2018; Oh & Lim, 2019).

Despite all these requirements, regulations, and initiatives, newly graduated nurses feel inadequately prepared for leadership and management roles (Dyess & Sherman, 2011).

Employers and nurse managers also criticize that the leadership training of student nurses are not in accordance with the reality of the clinical environment (Benner et al., 2010). Therefore, the recurrent question of what is missing in leadership development interventions among nursing students remains unsolved. In line with the examination of these interventions, it may be possible to organize standardised leadership training programs.

Brown et al. (2015) explored clinical leadership development interventions within pre-registration nursing programs. The study focused only on clinical leadership skills, studies conducted in the nurse group, and some unpublished theses. In addition, there have been new interventions since the year the article was published. It is therefore important to point out the characteristics of leadership development interventions for nursing students. Thus, the aim of this systematic review is to analyze the contents and outcomes of the leadership development interventions implemented on nursing students in order to collect, evaluate, and synthesize the existing evidence for the increased effectiveness of these interventions. In accordance, the review focused on the following questions (1) What are the characteristics of leadership development interventions for nursing students? (2) What are the outcomes of leadership development interventions for nursing students?

MATERIAL AND METHODS

Research Design

A systematic search is conducted guided by Preferred Reporting Items for Systematic Reviews and Meta Analyses (Moher et al., 2010). This systematic review protocol is carried out according to a previously reported record (PROSPERO CRD42020202774) which is also guided by the Preferred Reporting Items for Systematic review and Meta-Analysis Protocols (PRISMA-P) checklist (Shamseer et al., 2015).

Data Sources And Search Strategy

Embase, MEDLINE, WOS, Google Scholar and CINAHL databases were used. Search terms were developed based on MeSH headings and Boolean operators were applied (see Table 1). The terms were applied in the EBSCOHost platform using the advanced search option. It was reached to 124 studies in Embase, 216 in Medline, 341 in WOS, 31 in Google Scholar and 238 in CINAHL databases. Articles were transferred into the Endnote software and duplicates were removed. Concurrently, sources of included studies were checked for additional potential studies and 4 others were reached. It was seen that the first study that met the inclusion criteria was carried out in 1978. Since it is aimed to provide suggestions to those who want to develop a leadership program at the end of the review, the studies published between 1978-2020 were systematically screened.

Table 1. Search Strategy with Boolean Operators

Interface *– EBSCOhost Research Databases (Embase, Medline and CINAHL databases were covered)*
Search Limiters *– Published Data: 1978-2020; Scholarly (Peer Reviewed) Journals; Published in English*
Search Terms *– Leadership AND "nurs* student*" OR "student nurs*" OR "undergraduate* nurse" OR "BSN" OR "Prelicensure nurs*" OR "pupil nurs*" OR "baccalaureate nurs*" IN Abstract*
Database – *WOS (Web of Science Core Collection)*
Search Limiters *– Refined by excluding publication years between 1945-78 and the year 2021; Document type: Article; Language: English.*
Search Terms *– Leadership AND "nurs* student*" OR "student nurs*" OR "undergraduate* nurse" OR "BSN" OR "Prelicensure nurs*" OR "pupil nurs*" OR "baccalaureate nurs*" IN Abstract*
Database *– Google Scholar*
Search Limiters *– Dated between 1978-2020*
Search Terms *– "Leadership"(with the exact phrase) AND "nurs* student*" OR "student nurs*" OR "undergraduate* nurse" OR "BSN" OR "Prelicensure nurs*" OR "pupil nurs*" OR "baccalaureate nurs*" (occur anywhere in the article)*

Eligibility Criteria

The eligibility criteria were developed according to the PICOS model (Moher et al., 2010). In this context, studies where quantitative data regarding leadership development were present and conducted among bachelor of science nursing students who enrolled in a curricular or extracurricular leadership development program were included. The comparison was based on pretest–posttest design in the experimental and/or the control groups. Outcomes were determined as leadership skills were gained. However, studies conducted with postgraduate students, which do not include an intervention, did not target leadership development, and involved model/curriculum studies yet to be implemented, were excluded. Secondary studies, such as qualitative studies, reviews, and model/curriculum development studies, non-English studies were excluded.

Study Selection And Data Extraction

All searched studies were imported into Endnote software. Two reviewers read and eliminated irrelevant studies by title and abstract following the eligibility criteria. The full texts that remained were reviewed by both reviewers for inclusion. Discrepancies in data extraction and study selection were discussed by both reviewers and evaluated by a third reviewer. Two reviewers extracted the data into a form including the author and location of intervention, publishing year, aim, characteristics of the participants, design and method, data tools, reliability and validity assessment, major findings, limitations and quality assessment score (see Table 2).

The data regarding the applied intervention will also be extracted through the form created by the researchers. The form was to understand if there were any leadership definition and style, framework, qualifications for students and instructors/mentors, program components and student responsibilities, student involvement and experiences (see Table 3).

Table 2. Characteristics of Included Studies

Authors, Year, Country	Aim	Subjects	Design/Method	Data Collection	Reliability	Major Findings	Limitations	QA*
*: Quality Assessment Score according to the MMAT (Mixed Methods Appraisal Tool).								

Table 3. Characteristics of Educational Interventions

Study	Framework	Qualifications	Components	Student Responsibilities	Student Aspect	QA*
*: Quality Assessment Score according to the MMAT (Mixed Methods Appraisal Tool).						

Search Outcomes

After database screening and backward and forward reference tracking, 954 papers were identified. After excluding duplicates (n=181), there remained 773 papers evaluated by two reviewers on titles and abstracts based on PICOS criteria. All in all, 188 papers were included for full text review and exclusion reasons were identified. Among 188 papers, twelve met the inclusion criteria as highlighted in the PRISMA diagram (Moher et al., 2010) (see Fig. 1).

Quality Appraisal

Included papers were independently evaluated for quality appraisal by two reviewers using the Mixed Methods Appraisal Tool Version 2018 (MMAT) for quantitative non-randomised studies, randomised controled trials, and mixed methods studies (Hong et al. 2018). Two researchers carried out the quality evaluations independently and a consensus was reached at the end of the process. A reliability level was assigned to each finding presented in the studies. In this way, only reliable findings were accepted (Lockwood et al., 2015). Methodological qualities are assessed for each study; however, they were not graded as it was discouraged by the developers of the tool (See Table 4).

Data Synthesis

After the characteristics of included studies are reported, in a qualitative manner using text/tabular method, data will be synthesized in six main articles which are leadership approach, program structure, content design, qualification, student involvement and program outcomes. Then, it will be determined which studies can be grouped for quantitative synthesis, and present available data. If applicable, the numerical data extracted from the studies including identical measurements will be synthesized. To brought the numerical data, vote counting statistical synthesis method will be used to address if there is any evidence of an effect. Harvest plot/Effect direction plot will be used where available.

Table 4. Methodological Quality Assessment Scores According to the MMAT Tool.

Study	CQ1	CQ2	Q1	Q2	Q3	Q4	Q5	Q (.../7)
Study A[1]								
Study B[2]								
Study C[3]								
CQ: Core Question for all designs; Y: Yes N: No CT: Can't Tell [1] Evaluated by the MMAT Tool for Quantitative Non-Randomized Studies, [2] for Randomized Controlled Trials, [3] for Mixed Methods Studies.								

Table 5. Timetable

Process	Not started	Started	Completed
Preliminary searches			✓
Piloting of the study selection process			✓
Formal screening of search results against eligibility criteria			✓
Data extraction			✓
Risk of bias (quality) assessment			✓
Data analysis & syntheses	✓		
Submission for complete publication	✓		
Publication	✓		

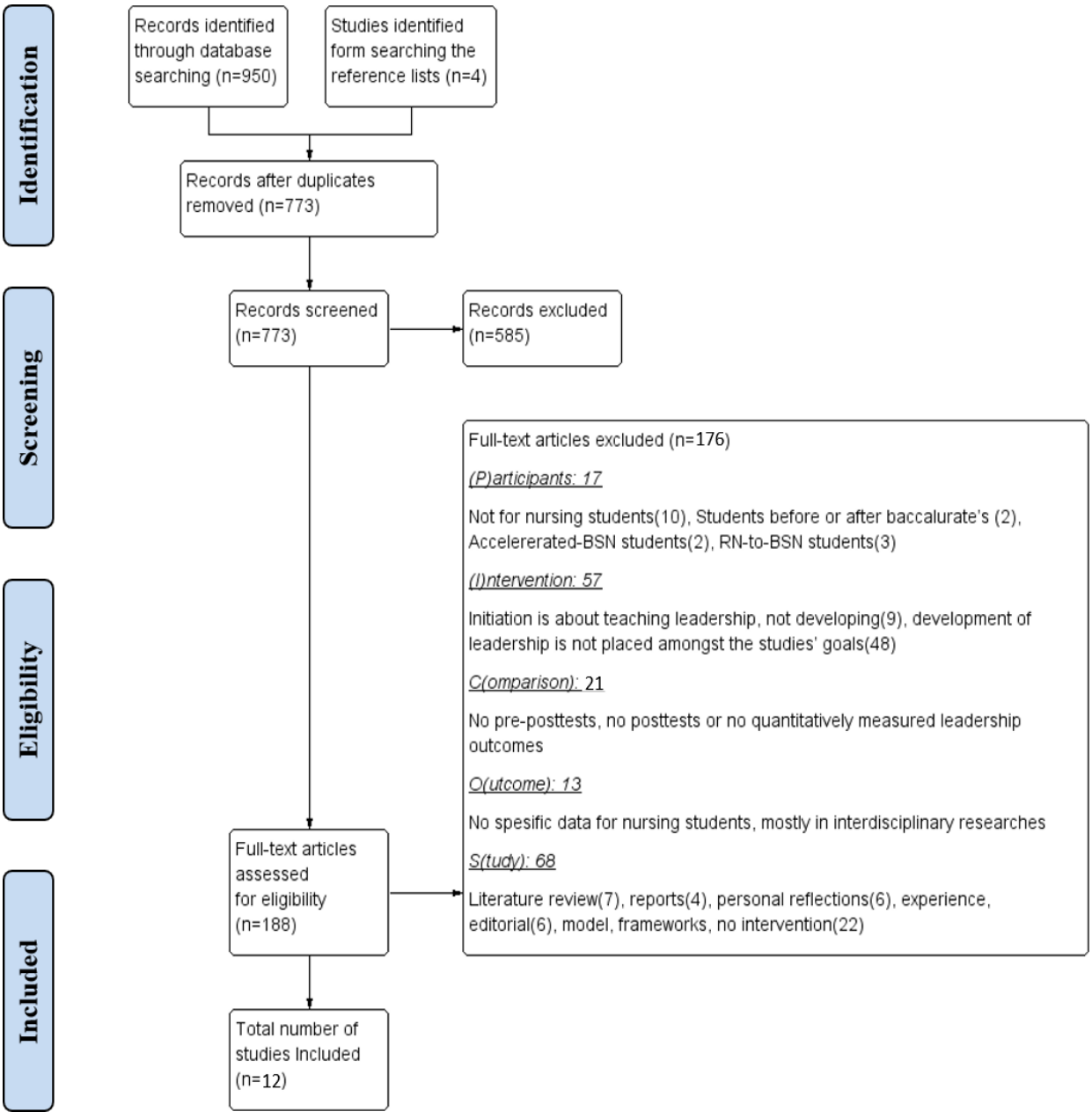

Figure 1. PRISMA Flow Diagram

DISCUSSION

Although leadership is acknowledged and made obligatory as a nurse competency by national and international authorities, it has been reported that novice nurses are experiencing difficulties to reflect those skills and nurse managers state that newly graduated nurses are lacking in leadership in the clinical settings' reality. There have been numerous interventions to educate nursing students in terms of developing leadership, yet their features were not analysed systematically to foster responding the current problem previously stated. As this is the first systematic review on this topic, it is expected to reveal the tools to evaluate leadership development, elements used in the interventions and their structures. It is also expected to contribute future interventions on leadership development in terms of their structures. In addition, it is expected to enlighten the scarcity of leadership skill-building for nursing students.

Authorship Contributions

Canberk Akdeniz: Conceptualization, Investigation, Methodology, Validation, Formal Analysis, Data Curation, Writing the Original Draft, Visualization.

Sergül Duygulu: Conceptualization, Methodology, Validation, Formal Analysis, Review&Editing, Supervision.

Declaration of Conflicting Interests

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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KAYNAKLAR

1 Allio, R. J. (2016). Learning to be a leader. Strategy & Leadership, 44(4): 3–9.

2 American Association of Colleges of Nursing. (2017). Fact sheet: Nursing shortage. Retrieved from: https://www.aacnnursing.org/news-information/fact-sheets/nursing-shortage.

3 Bambrick-Santoyo, P. (2012). Good Coaching Leads to Good Leadership. Phi Delta Kappan, 94(4): 70–71.

4 Benner, P., Sutphen, M., Leonard, V., & Day, L. (2010). Educating nurses: A call for radical transformation. San Francisco, CA: Jossey-Bass.

5 Brown, A., Crookes, P., Dewing, J. (2015). Clinical leadership in pre-registration nursing programmes – an international literature review. Contemporary Nurse, 51(1): 39–55. doi:10.1080/10376178.2015.1095055

6 Cherian, S., Karkada, S. (2017). A Review on Leadership In Nursing. International Journal of Nursing Research and Practice, 4(1): 58-66.

7 Ciampa, E. J., Hunt, A. A., & Dermody, T. S. (2010). Leadership Can and Should Be Taught. Academic Medicine, 85(12): 1814.

8 Curtis, E. A, de Vries, J., Sheerin, F. K. (2011). Developing Leadership in Nursing: Exploring Core Factors. British Journal of Nursing 20(5): 306-309.

9 Dyess, S., Sherman, R. (2011). Developing the Leadership Skills of New Graduates to Influence Practice Environments: A Novice Nurse Leadership Program. Nursing Administration Quarterly, 35: 313-322.

10 Foli, K. J., Braswell, M., Kirkpatrick, J., & Lim, E. (2014). Development of Leadership Behaviors in Undergraduate Nursing Students: A Service-Learning Approach. Nursing Education Perspectives, 35(2): 76–82.

11 Göktepe, N., Türkmen, E., Zeybekoğlu, Z., & Yalçin, B. (2018). Use of Team-Based Learning in a Nursing Leadership Course. Nurse Educator, 43(6): 1-4.

12 Grossman, S. C., & Valiga, T. M. (2009).The new leadershipchallenge: Creating the future of nursing. (3rd ed.) Philadelphia:F.A. Davis Publishers.

13 Ha, L., & Pepin, J. (2018). Clinical nursing leadership educational intervention for first-year nursing students: A qualitative evaluation. Nurse Education in Practice, 32: 37–43.

14 Hong QN, Pluye P, Fàbregues S, Bartlett G, Boardman F, Cargo M, Dagenais P, Gagnon M-P, Griffiths F, Nicolau B, O'Cathain A, Rousseau M-C, Vedel I. (2018). Mixed Methods Appraisal Tool (MMAT), version 2018. Canadian Intellectual Property Office, Industry Canada.

15 Institute of Medicine. (2011). The Future of Nursing: Leading Change, Advancing Health. Washington, DC: The National Academies Press. doi: 10.17226/12956.

16 Kouzes, J., Posner, B., (2012). The Leadership Challenge, 5th. JosseyBass, San Francisco

17 Kumar, R. D. C., & Khiljee, N. (2016). Leadership in healthcare. Anaesthesia & Intensive Care Medicine, 17(1): 63–65.

18 Lee, K. E. (2018). Effects of Team-Based Learning on the Core Competencies of Nursing Students. Journal of Nursing Research, 26(2), 88–96. doi:10.1097/jnr.0000000000000259

19 Lockwood, C., Munn, Z., Porritt, K. (2015). Qualitative research synthesis: methodological guidance for systematic reviewers utilizing meta-aggregation. International Journal of Evidence-Based Healthcare 13, 179–187.

20 Marath, U., Ramachandra, (2015). Impact of Leadership Development Package on Leadership Competencies of Undergraduate Nursing Students. Asian J. Nur. Edu. and Research 5(2): April-June 2015; Page221-228. doi: 10.5958/2349-2996.2015.00044.0

21 Marć, M., Bartosiewicz, A., Burzyńska, J., Chmiel, Z., & Januszewicz, P. (2018). A nursing shortage – a prospect of global and local policies. International Nursing Review. doi:10.1111/inr.12473

22 Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2010). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

23 NACNEP. (2010). Eighth annual report to the secretary of the U.S department of health and human services and the U.S congress addressing new challenges facing nursing education: solutions for a transforming healthcare environment. Washington, DC: U.S. : Department of Health and Human Services.

24 Oh SE, Lim JY. (2019). Developing and Evaluating a Camp-style Leadership Enhancement Program for Nursing Students. J Korean Acad Nurs Adm, 25(1): 52-61. https://doi.org/10.11111/jkana.2019.25.1.52

25 Shamseer L, Moher D, Clarke M, Ghersi D, Liberati A, Petticrew M, Shekelle P, Stewart L, PRISMA-P Group. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P): Elaboration and explanation. BMJ. 2;349(jan02 1):g7647.

26 Slattery, M. J., Logan, B. L., Mudge, B., Secore, K., von Reyn, L. J., & Maue, R. A. (2016). An Undergraduate Research Fellowship Program to Prepare Nursing Students for Future Workforce Roles. Journal of professional nursing : official journal of the American Association of Colleges of Nursing, 32(6): 412–420. doi:10.1016/j.profnurs.2016.03.008

27 World Health Organization. (2009). Global Standards for the initial education of professional nurses and midwives. Geneva. https://www.who.int/hrh/nursing_midwifery/hrh_global_standards_education.pdf

28 World Health Statistics (2019). Monitoring health for the SDGs, sustainable development goals. Geneva: World Health Organization; 2019. Licence: CC BY-NC-SA 3.0 IGO.