

Combatting the Nursing Shortage by Requiring Prior Healthcare Experience as a
Condition of Admission to Nursing School: a Systematic Review

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Abstract

Novice nursing students confront a variety of challenges as they begin their clinical rotations and encounter patients for the first time. These students often experience anxiety related to a lack of appropriate clinical knowledge, feelings of incompetence due to clinical inexperience, and underdeveloped communication skills. While anxiety may motivate a student to learn, it can also hinder the learning process. It has been suggested that students who enter nursing school with prior healthcare experience may have decreased levels of anxiety upon beginning their clinical coursework. The purpose of this systematic review was to determine the advantages and disadvantages of requiring healthcare experience as a condition of admission to nursing school. Research, from the last 15 years, focusing on nursing students was reviewed. Eligible studies for this review met the following criteria: student enrollment in a nursing program, data collected before or after the student's first clinical rotation, and inclusion of healthcare experience as a variable. Databases searched included PubMed and CINAHL. Search terms included nursing student, employment, nursing assistants, socialization, confidence, and anxiety. Results suggest that requiring healthcare experience prior to admission to nursing school has a variety of advantages and disadvantages. Students express increased confidence levels when interacting with interdisciplinary teams and performing skills and decreased feelings of anxiety on the unit. However, prior healthcare experience can also lead to role confusion and questioning of unit placement. Though previous experience among nursing students is beneficial, requirement for admission should be carefully considered. Nursing schools should allow only certain

programs and/or healthcare facilities to gain experience for admission to ensure consistency amongst peers. Upon admission, a brief course on caregiver responsibilities should be considered to address the disadvantage of caregiver role confusion related to previous healthcare experience.

Combatting the Nursing Shortage by Requiring Prior Healthcare Experience as a
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In recent years, talk of the nursing shortage has significantly increased. Given the notorious shortage, it is unlikely coincidental the number of students enrolled in nursing school has increased. The demand for nurses serves as an incentive for students choosing a career path to apply to nursing school. However, the number of qualified applicants surpasses the number of available positions nursing programs are able to fill. With the number of applicants increasing and the restriction on the number able to be admitted, the admission process and criterion have become more competitive. Nursing program's boards of admissions take a variety of factors into consideration when comparing applicants. Grade point average, a previously singular admission criterion, is seldom the deciding factor. The admission process today is much more extensive often times including interviews, essays and requiring prior healthcare experience.

The purpose of this systematic review was to determine the advantages and disadvantages of requiring healthcare experience as a condition of admission to nursing school. Upon admission, novice nursing students confront a variety of challenges as they begin their clinical rotations and encounter patients for the first time. These students often experience anxiety related to a lack of appropriate clinical knowledge, feelings of incompetence due to clinical inexperience, and underdeveloped communication skills. While anxiety may motivate a student to learn, it can also hinder the learning process. It has been suggested that students who enter nursing school with prior healthcare

experience may have decreased levels of anxiety upon beginning their clinical coursework.

Background

In December 2013, the U.S. Bureau of Labor Statistics published a report disclosing the occupations with the largest projected number of job openings due to growth and replacement needs. In this report, the number of registered nursing jobs opening from 2012-2022 (reported in the thousands) was estimated at approximately 1,053 (U.S. Bureau of Labor Statistics, 2013, Table 8). The Nursing shortage has become a global issue resulting in an increased number of nursing students enrolled in programs worldwide as evidenced by research carried out globally. According to research published by the American Association of Colleges of Nursing (2013), the number of nursing students enrolled in Baccalaureate, Master's and Doctoral nursing programs has increased 63,888 students from 2004-2013. Similarly, another article by Fang, Htut, and Bednash (2008), claims an annual increase in entry-level baccalaureate nursing programs since 2001. Moseley and Mead (2008), report an increase of 40% in the number of student nurses training in United Kingdom higher education institutions. Similar to the nursing shortage the United States is facing, the National Nursing Research Unit in the UK (2009) claims they face a deficit of 14,000 nurses. Though, it should be noted this shortfall was predicted to occur by 2011. Research done in Australia also notes the significant increase in nursing students and demand for nurses by the workforce (Barnett, Cross, Shahwan-Akl, & Jacob, 2009). Given the extensive research on the topic, it is discernable the nursing shortage and increase in nursing students internationally is of interest to many populations. The number of completed applications

in the United States alone has increased by over 100,000 from 2004-2011 (AACN, 2012¹).

The influx of potential nursing students applying to programs, though ideal to combat the shortage, is problematic for nursing school admission boards. Nursing programs are forced to deny admission to multiple promising candidates. In 2011 the American Association of College of Nursing surveyed 733 nursing schools (87.5%) in the United States on their admission trends for fall 2011. The results: “255,671 completed applications were received for entry-level baccalaureate nursing programs [in 2011] with 159,387 meeting admission criteria” (AACN, 2012, 2011 AACN Survey Overview Section). Of these 159,387 qualified applicants, only 101,060 were offered admission—an acceptance rate of 39.5% (AACN, 2012²). Often times, this is due to a lack of faculty, space or available clinical placements. Research by Terry and Whitman (2011), claims the economy negatively impacts baccalaureate nursing programs resulting in “difficulty locating clinical placements for students, and no change in faculty applicants despite an increase in undergraduate student applicants as well as graduate student applicants” (p. 252). A disproportionate supply and demand faculty ratio leads to the inability to admit more applicants. The AACN (2012) addresses the lack of faculty, clinical sites and budget cuts as causes, as well, while also attributing classroom space and available preceptors as reasons for turning away applicants from programs. A study by Buerhaus, Auerbach and Staiger (2009) resulted in the same findings: “shortages of

¹ Figure 1; Appendix SOURCE: American Association of Colleges of Nursing, Research and Data Center, 2004-2011

² Figure 2, Appendix; SOURCE: American Association of Colleges of Nursing, Research and Data Center, 2002-2013

faculty, inadequate classroom space, lack of clinical education sites and budget shortfalls” (p. 666).

Because of the limitations in appropriately accommodating all qualified applicants, admission processes have become much more competitive. Nursing schools take multiple factors into consideration when selecting applicants for admission. The process varies from program to program—some programs requiring criterion others do not take into consideration. Most, however, according to an article by Cunningham, Manier, Anderson and Sarnosky (2014) always consider GPA, standardized test scores and academic success in nursing prerequisite courses as factors. The same article also indicates some programs take preadmission tests like the Health Education Systems, Inc. Admissions Assessment (HESI) into consideration (Cunningham, Manier, Anderson and Sarnosky, 2014). Interviewing potential students prior to acceptance has become a popular piece of the admission process, as well. A study focusing on the admission process at Indiana University School of Nursing claims the interview process allowed for the opportunity to further delve into the applicant’s strengths and talents (McNelis, et al, 2010). The study also concluded interviewing allows “the applicants to speak on their own behalf versus just looking at a GPA number” and “reflect the reason/passion for making nursing a career and demonstrate how they will contribute to the profession” (McNelis, et al, 2010, p. 192). Another example, and the focus of this systematic review, is requiring healthcare experience prior to admittance and/or during nursing school as a condition of admission. This review explores the advantages and disadvantages of this requirement.

Methods

Research, from the last 15 years, focusing on nursing students was reviewed. Eligible studies for this review met the following criteria: student enrollment in a nursing program, data collected before or after the student's first clinical rotation, and inclusion of healthcare experience as a variable. Databases searched included PubMed and CINAHL. Search terms included nursing student, employment, nursing assistants, socialization, confidence, and anxiety. Eleven works met the criteria to be included in the systematic review. The results of this systematic review focuses on nursing programs in the United States. Research conducted in other countries was reviewed for supporting evidence to this systematic review's argument. Combining international research allowed for greater, in-depth data.

Findings

The findings of this literature review reveal various advantages and disadvantages related to nursing students having previous healthcare experience prior to beginning nursing school. However, many of the articles focus on similar specific positive and negative impacts on students' experiences in nursing school.

Advantages

Increased confidence. Prior experience in the healthcare field has been linked with a significant increase in confidence level amongst nursing students entering a program. Houghton, Casey, Shaw and Murphy (2012) report, "previous experience working in a healthcare setting...has been linked with increased confidence and improved socialization into the clinical setting" (p. 1962). The study directly quotes a student with previous experience who states the experience helped significantly with

simply communicating with patients (Houghton, Casey, Shaw & Murphy, 2012). Performing new nursing skills on patients can be intimidating for students at the beginning of their nursing program. Often times, communication with a patient seems like an easy, nonthreatening task. However, this can be extremely difficult for students. Patients' transference of feelings onto a student can be anxiety provoking. When students develop patient communication skills through previous experience, this potential threat is decreased. Similar to Houghton, Casey, Shaw and Murphy (2012), Chesser-Smyth (2005) claims participants with previous experience in healthcare reported higher levels of confidence. The article also quotes a student with experience who states she "felt at ease straight-away" during her first clinical placement (Chesser-Smyth, 2005, p. 323). Alike, Hasson, McKenna, and Kenney (2012), found students who had worked as healthcare assistants had higher confidence levels when beginning their clinical rotations. Finally, Stombaugh and Judd's study (2014) indicates a significant relationship between experience and confidence levels; the more time a student worked as an assistant, the more comfortable the student felt working autonomously during clinical rotations. It should be noted, however, that experience "does not guarantee confidence in basic nursing care" (Stombaugh & Judd, 2014, p.167). Though increased confidence and prior experience are correlated, confidence cannot be attributed as a direct result of experience.

Decreased levels of stress and anxiety. Studies show moderate levels of anxiety can be beneficial for student learning. Melincavage (2011) believes anxiety activates the flight-or-fight response in students and, therefore, contributes to their performance. This response can have a positive or negative impact on their clinical performance depending on the level of anxiety the student experiences. Not only does prior experience increase

confidence levels, but studies also show this experience can lead to decreased levels of stress and anxiety. Admi (1997) indicates students with previous healthcare experience faced lower stress levels. Chesser-Smyth (2005) writes those with “no previous work experience described a higher amount of anxiety in comparison to those who possessed previous experience” (p. 324). Heightened levels of anxiety pose a threat to students’ ability to learn. The students succumb to the anxiety and stress and are not apt to develop nursing knowledge and skills, tending to act more as passive observers (Chesser-Smyth, 2005). When anxiety and stress levels decrease, students begin to gain a greater sense of independence, enhancing their learning opportunities and ability to acquire new knowledge. Hasson, McKenna and Keeney (2012), report similar findings: students with a lack of experience prior to beginning nursing school “described the fear of the unknown when entering clinical placement and reported a high level of anxiety” (p. 876). Houghton, Casey, Shaw and Murphy (2012) support this claiming the reality of the nursing profession can lead to increased anxiety and, ultimately, impede on students’ ability to practice skills. This study also notes the anxiety may lead to increased stress levels and inhibit the student’s socialization and acclimatization (Houghton, Casey, Shaw & Murphy, 2012). Aides and healthcare assistants exposed to a nursing environment prior to beginning a nursing program are at an advantage when considering levels of anxiety and stress during the first few clinical placements.

Exposure to the reality of the field leading to lower levels of attrition. False expectations of the nursing field can lead to reality shock for students entering a nursing program without appropriate knowledge of the discipline. Brennan and McSherry (2007) support the findings of Gray and Smith (1999) arguing “students with prior nursing

experience are protected by their prior knowledge [which] seems to reduce the reality shock in the clinical area” (p. 208). In comparison, “students with no prior health experience have had no exposure to the nurse’s role, and are instead left to draw upon their own set of values and preconceived ideas” (Brennan & McSherry, 2007, p. 208). The reality shock can be intimidating. Sometimes, intimidating enough the students leave the nursing field all together. Urwin, et al. (2009) supports this claiming, students come into nursing without appropriate knowledge of the responsibilities and decide to leave the field for another career path. This can be frustrating for students and faculty alike. Gray and Smith (2000) indicate that students with exposure to the field are more likely to be comfortable and less fearful on the units because they have some understanding of how units function. In contrast, students lacking experience may have skewed perceptions of nursing and may encounter shock upon exposure to the reality of the field (Gray and Smith, 2000). The lack of insight amongst students regarding the reality of nursing can be detrimental to both the student and program. O’Donnell (2010) marks this lack of insight as a contributing factor to students’ decisions to withdrawal from nursing programs. Research clearly indicates prior experience benefits potential nursing students in respect to their perception of the field. Students are able to gauge the appropriateness of the nursing field as a potential career choice before they begin a program, ultimately leading to decreased reports of shock and student withdrawal. A student who participated in a trial in England where potential nursing students worked as HCAs describes her prior experience as beneficial, indicating the experience prepared her adequately for her program (Dean, 2014). The discussion of the trial indicates the importance of potential students gaining experience before beginning a program (Dean,

2014). A study on The Indiana University School of Nursing's admission process acknowledges the prevalence of requiring job shadowing as a prerequisite for application (McNelis, 2010). Though this experience is not as a HCA or aide, it is still experience in the nursing field. The study indicates more colleges are requiring this experience "on the basis of many experiences with students who had not investigated the profession and withdrew from the nursing program after the first clinical experience" (McNelis, 2010, p. 189). Lack of appropriate exposure to the field leads to increased shock in nursing students and climbing rates of attrition amongst nursing programs.

Disadvantages

Role confusion and treatment on the unit. Many articles address the issue of role confusion amongst students who have worked or work during school as a healthcare assistant (HCA)/student nurse aide. Houghton, Casey, Shaw and Murphy (2012), claim "some staff felt these students had a tendency to revert to their role as a nurse's aide rather than learn and develop their nursing-specific skills," proving detrimental to students (p. 1965). Students find their experience as an aide comforting and rely on their previous skills and knowledge to get through their clinical rotations. Their skills acquired as an aide can alleviate the pressures of being a student when feeling incompetent or disinclined to take on responsibilities (Brennan & McSherry, 2007). Though these students may seem confident and knowledgeable, and may well be, they are not developing further critical thinking and nursing specific roles and responsibilities. Similarly, a qualitative study carried out by Hasson, McKenna, and Keeney (2012), found "students reported their frustration at not being able to use their skills as a student nurse in their role as HCAs, leading most to experience role confusion" (p. 874). The constant

transition from healthcare assistant back to student nurse and visa versa proves challenging to students attempting to develop a knowledge base and skill set. These students find it difficult to adapt to their student role as they have already been working independently in the field (Hasson, McKenna, & Keeney, 2012). Brennan and McSherry (2007), quote a third year student who had previously worked as an HCA: “but in becoming a student it is all taken away from you and you have to start again, to learn as a professional person rather than as a HCA” (p. 211). The opportunities to perform previously unsupervised tasks and skills are revoked from students leading to frustration and role confusion.

The constant role reversal from student to HCA can also be problematic for other healthcare workers on the unit causing confusion when delegating tasks (Hasson, McKenna & Keeney, 2012). Staff may delegate tasks to HCAs, intended for student nurses, which can lead to liability issues amongst other problems. According to Brennan and McSherry (2007), students are concerned about clinical placements using them as assistants, leading the students to feel used at the expense of their position as a student nurse. Students are mistreated and used inappropriately when units experience staffing shortages. It is obvious the role confusion amongst students who have worked/work currently as aides does not only thwart the opportunities for students, but proves problematic for healthcare workers on the unit as well.

Academic impact. Nursing students work as aides throughout their prerequisites and nursing education for a variety of reasons. Mainly, students work for financial incentive and to gain experience on a healthcare unit. Though students working to gain experience have good intentions, studies show working as an assistant throughout their

college education could encumber their academic performance. Salamonson and Andrew (2006), found students with the highest academic achievements were unemployed. On the other hand, employment during students' education, lead to poorer performance in the classroom (Hasson, McKenna & Kenney, 2012). Students have trouble balancing academics and employment appropriately leading to poorer performance and attendance in the classroom. Stombaugh and Judd's study on nursing assistant employment (2014) found "that nursing-related employment was not beneficial to student academic performance in nursing courses, and the number of hours of part-time employment was negatively associated with academic performance" (p. 163). Students undertake part-time employment opportunities with respectable intentions. The students develop an understanding of a working unit and how different healthcare roles function in interdisciplinary teams. However, this understanding is not useful when students are not maintaining an appropriate academic performance level.

Student perception of learning needs. Though previous healthcare experience has been found to increase nursing students' confidence throughout clinical rotations, this confidence can be disproportionate leading to student misperception of learning needs. Because of their previous experience as assistants, some students feel their learning needs differ from their peers and are inadequately addressed (Hasson, McKenna, & Keeney, 2012). Students also assumed areas of their nursing coursework were redundant in regard to their previous training (Hasson, McKenna & Keeney, 2012). Students with previous experience felt their nursing knowledge was advanced compared to their peers and did not feel properly challenged. Though this may be true for some students, it should be considered it is possible these students may have developed erroneous skills (Houghton,

Casey, Shaw & Murphy, 2012). When students enter nursing school with a misconception of their knowledge and skill level it can impede their learning experience. Nursing staff must recognize and try to correct this, which can be difficult when students believe their learning needs are unlike other students' (Hasson, McKenna, & Keeney, 2012). Students enter programs with the belief that their nursing knowledge is abundant compared to that of peers with no prior experience. However, students "often [find] themselves unprepared for situations they believed they were prepared for" leading to stress and anxiety (Brennan & McSherry, 2007, p. 208).

Staff must recognize that healthcare assistants have varying skill sets, levels of confidence and experience, depending on the facility the students were employed at/which certification program was endured (Stombaugh & Judd, 2014). Ideally, a sense of confidence and self-efficacy is beneficial when students are beginning a nursing program. However, students, and staff, must recognize this can lead to misconstrued ideas of knowledge levels and competences.

Discussion

The amount of research singularly focusing on healthcare experience as it relates to nursing school success is limited. However, research that focuses on healthcare experience among other factors contributing to success is plentiful. Requiring aspiring nursing applicants to undergo healthcare experience prior to admission is beneficial. Lack of experience is not only detrimental for students in respect to increased levels of stress, anxiety and shock regarding the reality of the field, but for nursing school statistics, as well. The lack of experience amongst beginning nursing students leads to student withdrawal and, therefore, a skewed completion rate for the nursing program.

O'Donnell (2010) attributes attrition to lack of insight into the reality of nursing suggesting that this is a hindrance for nurse recruitment and intensifies the nursing shortage. Therefore, a board of admissions' choice to not require prior experience, as a condition of admission, would be ignorant.

The benefits prove advantageous to both students and nursing as a whole. The students are exposed to the field prior to beginning a program, leading to increased levels of confidence accompanied by less attrition, shock, anxiety and stress. For the nursing field, on the other hand, requiring experience allows students to fully understand the complexity of their career choice before committing. Ultimately, this contributes to combating the nursing shortage the world is facing. Students who lack proper knowledge of the field enter programs and fail to complete them, wasting a potential spot that could have been filled with a more knowledgeable, enthusiastic student. Eliminating this possibility by requiring experience before applying to programs can theoretically increase the amount of nurses certain of their career choice and lead to more successful nurse recruitment.

However, the disadvantages of requiring experience must be carefully addressed and programs must be aware of them. Programs can potentially regulate the belief students with experience have regarding their overestimated clinical competence. For instance, programs could specifically outline the experience required for admission. By initiating limits as to which programs or healthcare systems students can obtain experience at prior to admission, consistency amongst students would be seen. Though it is possible some students will still be more accelerated than others, students would enter

programs with similar skill sets (Stombaugh & Judd, 2014). This would lead to less competitiveness regarding knowledge and skill base amongst peers.

Nursing programs should also pay attention to the prevalence of role confusion and the disadvantage of maltreatment of students on units. Firstly, students should not be assigned a clinical placement on a unit that they work or have previously worked. This would nearly eliminate the flawed delegation by healthcare workers to students during clinical. Also, being placed on an unfamiliar unit could hypothetically decrease role confusion amongst student-aides. These students would ideally associate one unit with student nursing and another with healthcare aide responsibilities. Programs should also consider a brief course regarding the roles of nursing students versus healthcare aides to decrease the possibility of role confusion.

Finally, requiring experience prior to admission would not impact students' academic performance while completing their nursing program. However, if students choose to be employed throughout their nursing education, some limits should be set—something that would be ethically difficult. Nursing programs cannot refuse students to work throughout the program because some students have financial needs. Programs should attempt to budget more financial aid for students with fiscal responsibility of their education that cannot obtain loans another way to complete their program. Nonetheless, this is extremely difficult for nursing programs and universities. Compensating by allowing students to work a maximum amount of hours per week and providing tutoring services could help to positively impact students' academic performance.

Conclusion

Given the research, it is obvious the advantages of requiring healthcare experience as a condition of admission to nursing school outweighs the disadvantages. If nursing schools carefully tailor the criterion of experience during the admission process and address the potential negative impacts it could have on student success, the nursing student population could be changed dramatically. Students would enter programs enthusiastic and certain of their career choice leading to improved attrition rates and ultimately, a better proportion of admission to graduation ratios. Nursing programs' admission criteria has a direct effect on the nursing shortage; changing the criteria changes the nursing workforce.

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Appendix

Figure 1

Completed Applications to Entry-Level Baccalaureate Nursing Programs in the U.S.: 2004-2011

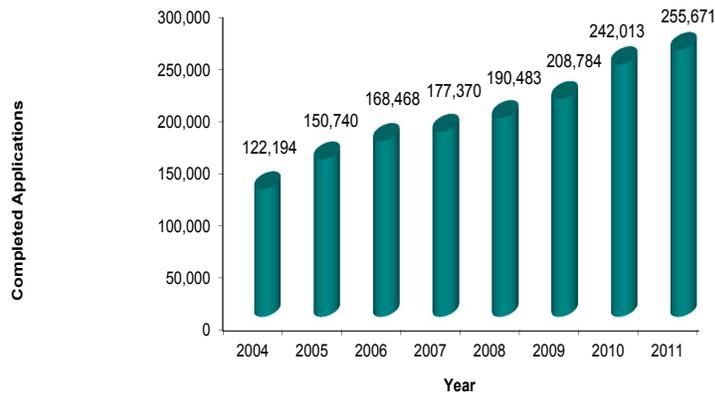
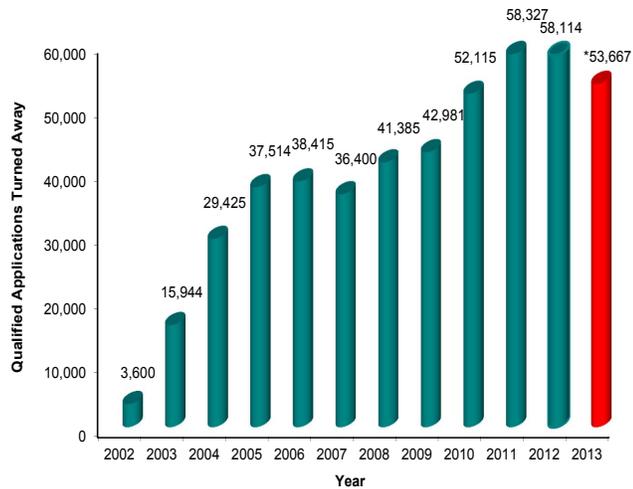


Figure 2

Qualified Applications Turned Away from Entry-Level Baccalaureate Nursing Programs: 2002-2013



*Preliminary data from fall 2013 survey