Randomized Controlled Trial of Graduate-to-Undergraduate Student Mentoring Program

SON CHAE KIM, PhD, RN*,[1], DEE OLIVERI, EdD, RN*,[1], MICHELLE RIINGEN, DNP, RN, CNS-BC*,[1], BARBARA TAYLOR, PhD, RN†,[1], and LARRY RANKIN, PhD, RN*

This randomized controlled trial evaluated the effects of graduate-to-undergraduate student mentoring on anxiety, self-efficacy, academic performance, and satisfaction with nursing as a career choice among students enrolled in a nursing fundamentals course during the first semester of a baccalaureate nursing program. The nursing students assigned to the experimental group received up to 20 hours of mentoring by registered nurses who were enrolled in a graduate nursing program at the same university. The State-Trait Anxiety Inventory, Baccalaureate Student Self-efficacy Questionnaire, nursing fundamentals course performance scores, and satisfaction with nursing as a career choice were measured. One-way analysis of covariance was used for data analysis. The experimental group (n = 34) had lower trait anxiety (P = .01), higher academic performance (P = .04) and satisfaction with nursing as a career choice (P = .002) at the end of the semester compared with the control group (n = 17). There were no statistically significant differences in state anxiety and self-efficacy between two groups. Mentoring by experienced nurses appears to reduce anxiety, foster academic success, and enhance professional satisfaction among beginning nursing students. (Index words: Mentoring; Nursing students; Satisfaction; Academic success; Anxiety) J Prof Nurs 29:e43–e49, 2013.

NURSING SCHOOL IS a stressful and intimidating environment for most beginning students. The combination of high anxiety and low self-efficacy among nursing students negatively impacts their learning process, clinical performance, and overall academic success (Cheung & Au, 2011; Watt, Murphy, Pascoe, Scanlon, & Gan, 2011). Furthermore, the shortage of nursing faculty limits the ability to provide optimal learning experience and needed remediation for some students (McGann & Thompson, 2008). This results in student dissatisfaction with their nursing program and poor professional socialization, which may contribute to academic failure and attrition.

Background

A body of literature specifies the negative effects of student stress and anxiety on academic success and retention. Not only students' clinical performance but also critical thinking abilities are negatively impacted by stress and anxiety (Suliman & Halabi, 2007). The most common stressors for nursing students include feelings of inadequacy about clinical competence, high faculty expectations, fear of making mistakes or failing, heavy academic loads, and long hours of study (Deary, Watson, & Hogston, 2003; Sawatzky, 1998; Tully, 2004). The stress level among the first-year nursing students during the initial clinical placement was shown to be higher than the stress level of even medical students (Jones & Johnston, 1997), and the nursing students' stress levels increased as they progress through the nursing program (Deary et al., 2003; Lindop, 1999). Interestingly, the baseline personality trait associated with negative coping

*Professor, School of Nursing, Point Loma Nazarene University, San Diego, CA.
†Dean & Professor, School of Nursing, Point Loma Nazarene University, San Diego, CA.
Address correspondence to Dr Kim: Professor, School of Nursing, Point Loma Nazarene University, 3900 Lomaland Drive, San Diego, CA 92106. E-mail: sonkim@pointloma.edu
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mechanisms was a greater contributor to nursing students' attrition than their intellectual ability (Deary et al., 2003).

A number of strategies to reduce students' stress and maximize learning and professional socialization have been studied. The structured tutorial supports improved self-esteem (Gammon & Morgan-Samuel, 2005); an individualized counseling program improved self-esteem and course grades (Godbey & Courage, 1994); a structured learning program decreased anxiety and increased self-efficacy (Watt et al., 2011); preceptorship increased self-efficacy (Goldenberg, Iwasiw, & MacMaster, 1997); and clinical mentorship enhanced clinical learning experiences and sense of belonging to nursing profession (Gray & Smith, 1999; Levett-Jones, Lathlean, Higgins, & McMillan, 2009).

Mentoring has been identified as an important strategy in reducing students' anxiety and facilitating smooth transition into the professional roles through the supportive and encouraging relationships (Kilcullen, 2007; Nelson, Godfrey, & Purdy, 2004). In contrast to preceptorship, which encompasses the clinical supervision and performance evaluation, mentorship is a voluntary partnering relationship where the mentor provides counseling, role modeling, guiding, sharing, and nurturing friendship to promote personal and professional growth of the mentees (Chow & Suen, 2001; Moscaritolo, 2009; Ousey, 2009; van Eps, Cooke, Creedy, & Walker, 2006). In addition, the mentor–mentee dyad is a two-way partnership in which both mentors and mentees receive mutual benefits of empowering each other (Palmer, 1998).

In hospital settings, mentoring of new staff nurses by experienced nurses is commonly used, and studies have shown increased retention rates, better acquisition of nursing professional identity, as well as job satisfaction (Duchscher, 2008; Fox, 2010; Weng et al., 2010). In contrast, peer mentoring studies in academic settings that used upper-level nursing student mentors have reported conflicting results on stress reduction and self-efficacy improvement for the beginning nursing students (Hughes et al., 2003; Li, Wang, Lin, & Lee, 2011; Sprengel & Job, 2004). The use of experienced nurses in academic settings to mentor the beginning nursing students has been underused (Andrusyszyn et al., 2007; Sword, Byrne, Drummond-Young, Harmer, & Rush, 2002). The potential benefits of mentoring by experienced nurses such as anxiety reduction, satisfaction with nursing as a career choice, building up confidence and self-efficacy, or academic success among the beginning nursing students have not been thoroughly studied. Furthermore, the effects of mentorship in the academic settings could not be determined with certainty because of poor study methodologies, such as lack of experimental design, randomization, or proper control groups (Sambunjak, Straus, & Marusic, 2006). These methodological limitations make it difficult to draw firm conclusions on the effects of mentoring in an academic setting.

The theoretical framework for this study in evaluating the effects of a mentoring program was based on the self-efficacy theory (Bandura, 1997). Self-efficacy is defined as individuals' confidence in their ability to successfully complete a task. It was conceptualized that if mentors were successful in reducing mentees' anxiety level and improving self-efficacy, then the mentees will achieve academic success with greater confidence in the clinical setting and higher satisfaction with nursing as a career choice.

Methods

Purpose

The purpose of this study was to evaluate the effects of graduate-to-undergraduate student mentoring on anxiety, self-efficacy, academic performance, and satisfaction among nursing students in the first semester of a baccalaureate nursing program. The hypotheses for this study were that the mentored nursing students in the experimental group would have a lower anxiety level, higher self-efficacy, better academic performance, and higher satisfaction with nursing as a career choice compared with the unmentored nursing students in the control group.

Study Design and Participants

A randomized controlled trial was carried out at a baccalaureate nursing program in southern California from September to December of 2009 and 2010. The volunteer students enrolled in a nursing fundamentals course were randomly assigned to either experimental or control groups. Two-to-one ratio randomization was used to double the likelihood of being mentored in the experimental group versus the unmentored students. The male and female undergraduate students in the experimental group were randomly assigned to male and female mentors, respectively, to facilitate gender-specific mentoring. The students assigned to the experimental group received up to 20 hours of mentoring by registered nurses who were in a graduate nursing program at the same university. The students in control group did not receive any mentoring.

The graduate nursing students enrolled at the same university were recruited as mentors. The selection criteria for mentors included graduate students who had (a) a minimum of 2 years of experience as a registered nurse; (b) experience in preceptorship, coaching, teaching, mentoring and/or leadership; and (e) faculty recommendations.

Graduate-to-Undergraduate Student Mentoring Program

The mentoring program designed by the investigators contained three different components: (a) a 2-hour mentorship training session; (b) an icebreaker session for all mentors and mentees; and (c) mentor–mentee dyad interactions. The graduate students who volunteered to become mentors and met the selection criteria attended a 2-hour mandatory mentorship training session. The training