Abstract

Every new nursing graduate is challenged to successfully transition from student to professional nurse. The stress involved in the transition can manifest as performance anxiety. This study was conducted to verify the presence and identify the level of performance anxiety in a sample of new graduate nurses. Results included a significant decrease in performance anxiety by the end of the 6-month study period.

According to Buerhaus and colleagues, the continued shortage of nurses is attributed to decreasing enrollment in nursing schools, an aging and retiring nursing workforce, and unhealthy working environments. Allen reported that while the shortage has improved since 2002, more than 41,683 potential nursing students have been turned away nationally because of lack of qualified faculty. Whatever the reason for the shortage, there is an urgency by health care institutions for new graduate transition to occur as soon as possible after being hired. These new nurses are hampered in their ability to meet expectations when they must also deal with the accompanying anxiety about their performance.
Performance anxiety is defined as a state of anxiety that occurs only in certain situations and is considered to be a reaction to a stimulus. It occurs in anyone who has the experience of being the focus of attention of a group of people. When an individual has a fear of observation and evaluation and a fear of interacting with others, it is termed performance anxiety. This is different from trait anxieties that represent general anxiety tendencies.

For new graduates and employers, safe, competent clinical performance is the major goal of transition to professional practice. According to Hinds and Harley, anxiety about clinical performance is one reason that new graduates do not experience successful transitions to the workplace and profession. During clinical orientation, constant observation and evaluation are necessary to determine progress. This observation, along with their inexperience and insecurity, increases their anxiety about performance. Thus, the purpose of this research study was to verify the presence and identify the level of performance anxiety in a sample of new graduate nurses.

**THEORETICAL FRAMEWORK**

Peplau's theory of interpersonal relations is used to explain the presence of performance anxiety in new graduates. Although the theory is used to describe the nurse-patient relationship, it is thought to be applicable to this study. One of the key concepts of Peplau’s theory is anxiety, how it affects relationships, and how relationships may affect anxiety. Anxiety occurs intrapersonally, within the individual, but is manifested interpersonally and observed by others.

**ANXIETY**

Anxiety is an unexplainable uncomfortable feeling that is cognitively stimulated in an individual by any real or perceived internal or external threat to personal security, the body, or to the psychological self. Peplau describes anxiety as the energy coming from tension caused by biological and psychological needs that occur because of threats, real or imagined. This energy is also produced as the result of individuals’ experiences of anxiety.

The energy anxiety produces cannot be observed directly but is manifested as relief behaviors that the individual uses in an attempt to relieve the anxiety. These relief behaviors are usually dysfunctional and may be interpreted as anxiety when observed by others. Examples of these relief behaviors are presented later in this article. Those observing and interpreting the behaviors can then develop appropriate interventions to help the individual reduce the anxiety.

The energy generated by performance anxiety can be transformative when the level is not extremely high. Transformative energy is that anxiety that can be channeled into effective coping mechanisms instead of dysfunctional relief behaviors and used to achieve preset intrapersonal goals. Therefore, anxiety occurs intrapersonally but is communicated interpersonally.

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RELIEF BEHAVIORS

Intrapersonal changes occur within the person as the result of interpersonal relations. As new graduates' transition progresses, problems may occur with the intrapersonal changes, and the transformation of excessive anxiety into energy required for learning and development does not happen. New graduates then display relief behaviors because of the discomfort caused by the performance anxiety, and the preceptor observing the behaviors decides how to intervene.

Relief behaviors follow 5 patterns of behavior: (1) overt acting out, such as anger; (2) covert acting out as in resentment; (3) withdrawal; (4) somatization; and (5) learning. Using the energy performance anxiety generates to motivate learning is what promotes the new graduate's successful transition. This display of relief behaviors and the interpersonal communication of performance anxiety follows Peplau's theory, which is to first observe behavior exhibited, interpret the behavior, then allow the nature of the behavior to determine the intervention to be used.

Peplau identifies a variety of relief behaviors including denial, delusions, self-reflection, discussion with others, humor, aggression, hallucinations, and psychosomatic complaints. Relief behaviors used by new graduates during their transition period include (1) the presence of physical ailments, (2) crying, (3) acting out, (4) nightmares, (5) withdrawal, (6) irritation, (7) anger, and (8) avoidance. The most extreme performance anxiety relief behavior results when new graduates leave the nursing unit or leave the nursing profession.

REVIEW OF THE LITERATURE

A literature search resulted in no published research investigating performance anxiety in new nursing graduates. The search resulted in studies related mostly to musicians and actors. There were also results in the related issues of test anxiety in various populations of primarily nonnursing college students. The cost of unsuccessful transition and replacement is approximately $80 000, and more for those in specialty areas. Therefore, the need to facilitate transition for new graduate nurse by verifying the presence and the level of performance anxiety in this population is important.

NEW PROFESSIONAL NURSES AND PERFORMANCE ANXIETY

Performance anxiety in the workplace may be a residual of test anxiety experienced as a nursing student. Test anxiety appears in the literature under different names such as performance anxiety when referring to artists, with most of the literature focusing on musicians. A subset of social phobia, performance anxiety is a fear of being evaluated, embarrassed, or humiliated and a fear of interactions. This phobia may be experienced when a person is interacting in large groups or in small groups such as the workplace or with authority figures. It is not pathologic unless it continually interferes with daily activities or occupational functioning.

Performance anxiety in the workplace may be a residual of test anxiety experienced as a nursing student.
Everhart and Slate29 and Reddish and Kaplan30 found that being responsible for the care of complex patients leaves new graduates feeling overwhelmed, exhausted, and suffering from anxiety about their clinical performance. Duchscher3 determined that new graduates wanted to appear independent, removing the need for continuous observation and having to ask for help. These nurses' performances were also affected by anticipation of interactions with physicians as well as actual interactions. This was especially unnerving when working in an environment with uncooperative physicians, which contributed to more anxiety about clinical performance. She reported that completion of tasks on time and actual patient care activities were affected by being observed by preceptors and by other nurses.3

METHODS

After institutional review board approval, 34 new graduates enrolled in the 6-month nurse residency program and agreed to participate in this study. They worked in all areas of our 15-facility health care organization, including critical care, medical-surgical units, obstetrics, pediatrics, perioperative services, skilled nursing, behavioral health, and emergency departments. They self-administered both a demographic survey and the Clinical Experience Assessment Form as the measure of performance anxiety at the beginning and again at the end of the program. Included in the demographic survey tool was a 4-point Likert statement related to the level of personal anxiety at the time in an attempt to determine if personal anxiety influenced the performance anxiety experienced at work. The scale of 1 to 4 reflected “not much,” “somewhat,” “very much,” and “extremely.”

Kleehammer and colleagues31 developed the Clinical Experience Assessment Form to identify clinical experiences that induced performance anxiety in nursing students. This 16-item Likert scale includes procedural and communication aspects of patient care, aspects of interpersonal relationships with other health care providers, and interactions with faculty while in the clinical area. The scale ranges from 1 to 5, strongly disagree to strongly agree, with scores greater than 3 on any item indicating performance anxiety related to that item. A review of the literature, student nurse interviews, and the experiences of one of its authors were used to develop the tool, ensuring content validity. Fear of making mistakes and observation and evaluation by faculty produced the most performance anxiety in nursing students, decreasing the quality of their performance in the clinical area. The higher the total score, the higher the level of performance anxiety, with the neutral point being a score of 48 points.

The Cronbach $\alpha$ reliability coefficient for this tool was reported in the literature as $r = 0.82$, indicating that the assessment form does measure anxiety in this population.31,11,32 The tool was revised with permission from Dr Juanita Keck to reflect the terminology of the environment of the new graduate in this study and included “preceptor” replacing “instructor,” “other nurses” replacing “faculty,” and “shift leader” replacing “team leader.” Dr Keck developed the tool.

RESULTS
The Statistical Package for Social Sciences, GradPack version 17 (IBM Corporation, Armonk, New York), was used to analyze the data. This sample consisted of 34 new graduates, predominantly female, holding an associate degree in nursing as their first degree and having been a registered nurse for less than 3 months. The largest majority of them were assigned to the flagship hospital and in medical-surgical patient care units throughout the organization. Employment in critical care units was the second most frequent area of practice.

From the 4-point Likert scale indicating personal anxiety, the majority of the responses indicated that anxiety felt was “somewhat” related to their personal lives. Analysis indicated (1) there were no significant pre and post differences of the level of personal anxiety on performance anxiety, (2) no significant differences in performance anxiety related to area of practice, and (3) no difference in level of anxiety before and after the nurse residency program. The level of performance anxiety of those in critical care was lower than that in medical-surgical areas, but there was no statistically significant difference between the scores of those 2 groups.

After study, approximately one-third of the subjects had only 1 preceptor during orientation, whereas two-thirds had 2 or more. Approximately half of them attended 5 of 6 residency sessions (Table 1). The results of the Clinical Experience Assessment form indicated a significant reduction of performance anxiety from the beginning of the nurse residency program to its end (Table 2). There are 11 specific items that demonstrate a reduction in performance anxiety related to communication and observation among others (Table 3). Reliability coefficient for this study $r = 0.896$. 

### TABLE 1 Demographic Description

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>$n = 34$</td>
</tr>
<tr>
<td>Sex</td>
<td>95.9% female 35.5% male</td>
</tr>
<tr>
<td>Age range</td>
<td>31-40 y</td>
</tr>
<tr>
<td>First degree</td>
<td>70.5% associate degree 26.4% diploma</td>
</tr>
<tr>
<td>Education</td>
<td>12.9% 4-year 38.5% 2-year</td>
</tr>
<tr>
<td>Employment</td>
<td>81.8% critical care 26.4% medical-surgical</td>
</tr>
</tbody>
</table>

### TABLE 2 Clinical Experience Assessment Form

<table>
<thead>
<tr>
<th>Variable and Measurement</th>
<th>Mean (SD)</th>
<th>Paired t Test (df, p)</th>
<th>Mean Difference (95%)</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance anxiety</td>
<td>Pre. 46.36 (13.92) Post. 35.93 (14.76)</td>
<td>4.49 (225, 0.001)</td>
<td>7.14 (3.38)</td>
<td>3.813 - 10.423</td>
</tr>
</tbody>
</table>

### TABLE 3 Specific Items With Significant Decrease Clinical Experience Assessment Form
DISCUSSION

A review of the literature revealed no published articles investigating and measuring performance anxiety in new graduate nurses. In this study, performance anxiety was verified as being present in new graduates, but below the level Kleehammer and colleagues\textsuperscript{13} called the neutral point, suggesting that it was occurring at a manageable level. According to Jones,\textsuperscript{19} an appropriate level of performance anxiety can be effective as a coping mechanism. With the scores below the neutral point on the preresidency survey, these participants have indicated that they were possibly coping effectively with the transition to professional nursing practice.

Even though the participants' scores were below the neutral point initially, they also had decreased scores at the end of their residency session, indicating a further decrease in performance anxiety. The specific items of the Clinical Experience Assessment Form listed in Table 3 are those most likely to precipitate performance anxiety in this group of new graduates and the corresponding reduction in anxiety for those items. Note that the items involve communication and interaction, being evaluated, and being observed, the concepts described as related to the manifestation of performance anxiety. The percentages of new graduates moving from strongly agree to agree also indicate a reduction in performance anxiety in those items specific to communication, interaction, evaluation, and observation. The lower levels of performance anxiety in those in critical care may have occurred because of the higher number of nurse residents in medical-surgical areas. The participants' relatively low level of personal anxiety may also have been a factor in the low levels of performance anxiety.

Note that the items involve communication and interaction, being evaluated, and being observed, the concepts described as related to the manifestation of performance anxiety.

One limitation of this study is that the majority were between the ages of 20 and 29. The results may have been different if the participants were more evenly spread across the age spectrum. Also, not all hospitals have a residency program. Often nurses new to critical care are protected with an 1:1 ratio initially versus multitasking and problem solving on a medical-surgical unit. These units have a larger number of patients who require more organization skills. This may also increase the experience of anxiety in medical-surgical nurses.
The passing of time and an increased comfort level with the responsibilities of the professional nurse contributed to the decreased performance anxiety and may have also contributed to the decrease in performance anxiety scores. Supportive relationships with preceptors may have also contributed to the reduction. Clinical teaching, role modeling the behaviors of the professional nurse, and learning from the experiences of the preceptors may all have been factors.

IMPLICATIONS FOR NURSING PROFESSIONAL DEVELOPMENT

When reviewing those items on the Clinical Experience Assessment form that induced the greatest performance anxiety, it is useful to those involved with postgraduation transition programs to develop specific strategies to assist new graduates in mediating their related performance anxiety. Using this tool to determine the presence and level of performance anxiety will allow those nursing professional development educators, preceptors, and nurse managers to be better prepared to intervene when necessary. It will also allow the development of a variety of interventions as well as a variety of delivery methods to have on hand if and when needed. This will avoid the loss of the new graduate to the unit, organization, or to the nursing profession.

For example, those scoring 3 or greater on the item “talking with physicians” may be mediated by role playing with situations where conversations with the physician are necessary, particularly at 3:00 AM. The nursing professional development educator may partner with a physician who is willing to role play presenting different scenarios and attitudes in response to a call from a nurse caring for patient care issues.

More research conducted using the modified Clinical Experience Assessment Form with new graduates will facilitate validating its reliability coefficient with this population. Larger, more diverse samples will also increase its usefulness to nursing professional development educators and others involved with the transition of new graduates to professional nursing. Also, the American Association of Critical-Care Nurses has more tools to help the anxiety experienced by orientees and can be found at www.aacn.org (http://www.aacn.org).

References


30. Reddish MV, Kaplan LJ. When are new graduate nurses competent in the intensive care unit? Crit Care Nurs Q. 2007; 30: 199–205. [Context Link]


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