ABSTRACT
Undergraduate nursing students, as members of the health care team, must uphold patient safety as a professional and moral obligation during their clinical learning experiences. To address this imperative, in a humanistic paradigm, students engage in critical appraisal of self as a developing practitioner. Using Q-methodology, this study describes undergraduate nursing students’ subjective understanding of unsafe clinical practices, and results revealed a typology of five groups of unsafe students. The results showed four discrete groups of students at risk for unsafe clinical practices—vulnerable, unprepared, unknowing, and distanced students. Overall, a consensus viewpoint described the presence of the displaced student as the greatest safety risk. Use of this typology as an assessment guide may help students and educators cooperatively create and maintain a culture of safety while developing competent novice nurses.

Inherent in the Canadian nursing context is the moral imperative of all nurses across all sectors of practice to safeguard individuals, families, communities, and populations (Canadian Nurses Association, 2009). Across Canada, provincial nursing regulatory bodies specify regional standards for safe practice, inclusive of knowledge, judgment, attitudes, and skills, as the hallmark of securing and maintaining registration (College of Nurses of Ontario, 2009; College of Registered Nurses of British Columbia, 2010; College of Registered Nurses of Nova Scotia, 2003). For more than a quarter century, a national body has offered a voluntary accreditation process that evaluates baccalaureate nursing programs and educational units for quality (Canadian Association of Schools of Nursing, 2011). The accountability standard within this process encompasses students’ valuing of safe, ethical, and legal practice. To fulfill this accreditation criteria, nurse educators must integrate critical dialogue about safety throughout the educative process, with the goal of shared responsibility for safe praxis, with fellow students, educators, patients, and practitioners.

The aim of this article is to inform those who share the responsibility for safety in the complex reality of educating nurses. This study adds patient safety to the growing body of knowledge by describing undergraduate students’ perceptions of unsafe practices in the context of clinical learning. More specifically, this study describes undergraduate nursing students’ subjective understanding of unsafe practices in response to the core research question: When is it most unsafe in the clinical setting? The resultant findings, representative of students’ patterns of the understanding of risk, may provide early indicators for the prevention of adverse events associated with learning to nurse. A commitment to the avoidance of health care errors and the mitigation of adverse health events underlies all learning and practice expectations. Best evidence must be integrated in all educative endeavors to optimize learning outcomes while ensuring patient safety (Canadian Association of Schools of Nursing, 2006; Canadian Nurses Association, 2009; College of Nurses of Ontario, 2007).

Typology of Undergraduate Nursing Students’ Unsafe Clinical Practices: Q-Methodology
Sharolyn Mossey, MScN, RN; Phyllis Montgomery, PhD, RN; June M. Raymond, MScN, RN; and Laura A. Killam, MScN, RN


BACKGROUND

Within the humanistic paradigm (a common educative orientation), students are actively prepared for, engaged in, and central to all learning experiences that foster their professional development (Gillespie, 2005). This humanistic paradigm requires the creation of cooperative and supportive learning environments (Gillespie, 2005; Hanson & Stenvig, 2008). More specifically, the partnership between educator and student provides the space for professional transformation of the student. As stated by Bevis and Watson (1989), the interactions among students and educators intended to facilitate learning constitute nursing curricula. From this orientation, educators are considered partners in learning and are thus responsible for self-preparation to actualize guided professional growth. Research demonstrates that effective learning partnerships include attributes such as caring, competence, knowledge, ethics, accountability, and respect (Chou, Tang, Tang, & Yen, 2003; Dieckelman & Scheckel, 2004; Gillespie, 2005; Paton, 2010; Tang, Chou, & Chiang, 2005; Zilembo & Monterosso, 2008).

Educators, as members of the nursing education system and the larger health care context, are accountable for the provision of learning opportunities while safeguarding patients (Gregory, Guse, Dick, & Russell, 2007; Neudorf, Dyck, Scott, & Dick, 2008; Richardson & Storr, 2010; Tanner, 2006). Hartrick Doane and Brown (2011) emphasized that a revolution within nursing education is required for students to become competent practitioners. This transformation requires students to progress beyond taking on the role of the nurse to authentically becoming a nurse. To this end, the recent literature identifies a need for curricula to address the content and processes of safety (Canadian Patient Safety Institute, 2008; Dick, Weisbrod, Gregory, Dyck, & Neudorf, 2006). However, this inclusion must occur judiciously to avoid the negative implication of creating a content-laden curricula.

Identification and management of students who are at risk of unsafe clinical practices is an imperative but challenging undertaking. Clinical educators have expressed lack of confidence and, at times, competence in this aspect of their role due to limited experience in student evaluation, unclear program expectations, and policies (Girdley, Johnsen, & Kwekkeboom, 2009; Luhanga, Yonge, & Myrick, 2008; Paton & Binding, 2009; Scanlan, Care, & Gessler, 2001; Yonge, Krahn, Trojan, Reid, & Haase, 2002). A recent integrative review (Killam, Luhanga, & Bakker, 2011) suggested that unsafe practice may be influenced by educators whom students perceive as possessing varying degrees of competence and professionalism. To compound matters, students as individuals present with varying strengths, weaknesses, and learning styles (Kolb, 1984). In addition, students’ praxis may vary across different learning contexts.

Previously demonstrated safety by a student in one clinical practice environment does not necessarily guarantee future clinical safety. Therefore, educators must remain vigilant throughout all aspects of each clinical experience for indicators of unsafe student practice. It has been suggested that although novices are highly susceptible to clinical errors, the contextual mitigating factors of this relationship are not fully known (Ebright, Carter Kook, Moody, & Hassan Al-Ishaq, 2006).

Given that safety may be viewed as shared responsibility between educators and students, it is important to understand students’ conception of unsafe clinical practices and contexts. Nursing students’ perception of safety has recently been described as providing patient comfort, having knowledge, and being assisted by educators to actualize respectful and conscientious practices (Vaismoradi, Salsali, & Marck, 2011). In contrast, Killam, Montgomery, Luhanga, Adamic, and Carter (2010) found that students described unsafe practices as a violation of professional integrity. The three components of this violation included compromised professional accountability, praxis incapacity, and clinical disengagement. Educator efforts to implement curricula that facilitate student development as safe novice practitioners in increasingly complex realities is inherent in the shared accountability for patient safety (Ebright et al., 2006; Etchells, Lester, Morgan, & Johnson, 2005). The Canadian Patient Safety Institute stated:

No patient should be harmed as a consequence of their experience with Canada’s health system. No family should experience the pain and frustration of caring for a loved one who is harmed as a result of an adverse event…. This message is not intended to be critical or accusatory. Rather, this is a frank assessment of the current state of Canada’s healthcare system (as cited in Dick et al., 2006, pp. 40-41).

Our study extends nursing knowledge of safety from the perspective of students who learn and practice in such a context.

METHOD

Design

Q-methodology is described as a blended research approach that integrates the strengths of both qualitative and quantitative methods to yield a subjective orientation concerning a multifaceted phenomenon of interest (Dziopa & Ahern, 2011). More specifically, it involves the ranking of a sample of statements to produce a Q-sort, which is a conceptual representation of the viewpoints of a group of participants (Brown, 2008; Brown, 1996; Dziopa & Ahern, 2011; Shinebourne, 2009). This method makes evident “those statements that are most representative of, are indifferent to, or most unrepresentative of” (Parker & Alford, 2010, p. 175) the phenomenon of study. Based on statistically significant patterns of similarities and differences, subgroups of attitudes, values, beliefs, and perceptions are identifiable (Akhtar-Danesh, Baumann, & Cordingly, 2008; Dziopa & Ahern, 2011).

Q-methodology has been well described in the nursing literature (Akhtar-Danesh et al., 2008; Barker, 2008). Relative to professional education, this method has been used to differentiate categories of health care learners (Barbosa, Willoughby, Rosenberg, & Mrtek, 1998), as well as nursing faculty viewpoints about collaborative baccalaureate education (Akhtar-Danesh, Brown, Rideout, Brown, & Gaspar, 2007). The suitability of this methodology to expose the underexplored heterogeneous nature of the study phenomenon, as identified by Parker and Alford (2010), aligns with the intent to identify theoretically divergent student perspectives with respect to what constitutes unsafe clinical practice.
The creation of a concourse—a collection of statements about the phenomenon of interest—is fundamental to Q-methodology. In this study, the concourse development involved two sequential stages. Stage I involved the creation of an initial list of statements specific to unsafe practices in student-based clinical learning. This was achieved by extracting relevant statements from published nursing research and theoretical literature. These statements were added to an existing concourse used in an earlier study about the same topic of interest (Killam et al., 2010), which yielded a combined list of 232 individual statements. In Stage II, all authors of the current study independently reviewed this list to clarify the semantics of individual statements and eliminate duplications. This process resulted in a modified list of 63 individual statements. Consultants examined the list for relevancy, conceptual clarity, parsimony, and content validity. The consultants included two undergraduate nursing students (not involved as participants in this study), two graduate nursing students, and one expert nurse clinician and educator. On the basis of their recommendations, and through consensus, the authors finalized the concourse to include 43 individual statements about what constitutes unsafe clinical practice. Examples of the individual statements within the concourse are shown in Tables 1 through 5.

**Setting and Sample**

The setting for the study was a single baccalaureate nursing program. This program, oriented in the humanistic educative paradigm, is offered through a university–college collaboration in Ontario, Canada. Across the 4-year program are praxis experiences that integrate academic and clinical components. The final two semesters offer concentrated, clinically based, experiential learning opportunities for each student, in partnership with a preceptor, faculty advisor, and course professor. For the purpose of this study, the preceptor, faculty advisor, and course professor are collectively referred to as nurse educators.

The study population of interest comprised all nursing students currently enrolled in the final year of study at two sites within the collaborative program. Subsequent to receipt of ethical approval, students, at the conclusion of a scheduled class, were informed about and invited to voluntarily participate in the study by one author (L.A.K.). Those students not interested in participating were excused from the classroom without academic repercussion. Those who stayed and individually completed the sorting activity were invited to voluntarily submit their Q-sorts for further analysis. A total of 59 students submitted a completed Q-sort. No demographic or academic data were collected to ensure student anonymity. Although additional demographic student data may

### Table 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>Viewpoint 1: Vulnerable Student</th>
<th>Viewpoint 2: Unprepared Student</th>
<th>Viewpoint 3: Unknowing Student</th>
<th>Viewpoint 4: Distanced Student</th>
<th>X Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>The student is dishonest (makes up assessment data, covers up mistakes or hides his or her lack of knowledge).</td>
<td>3</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>3.50</td>
</tr>
<tr>
<td>11</td>
<td>The student demonstrates a pattern of errors (e.g., repeated mistakes).</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>2.75</td>
</tr>
<tr>
<td>18</td>
<td>The student does not protect patients from injury or potentially abusive situations.</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>2.50</td>
</tr>
<tr>
<td>27</td>
<td>The clinical educators encourage students to do things beyond their scope.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2.25</td>
</tr>
<tr>
<td>3</td>
<td>The student does not consider the guidance of the clinical educator.</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0.25</td>
</tr>
<tr>
<td>4</td>
<td>The student does not demonstrate critical thinking through the nursing process.</td>
<td>0</td>
<td>1</td>
<td>–1</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>42</td>
<td>The clinical educator does set clear expectations with students at the beginning of and throughout the placement.</td>
<td>–1</td>
<td>–1</td>
<td>–1</td>
<td>–1</td>
<td>–1.00</td>
</tr>
<tr>
<td>43</td>
<td>The student perceives the clinical educator as threatening.</td>
<td>–1</td>
<td>–1</td>
<td>–2</td>
<td>–1</td>
<td>–1.25</td>
</tr>
<tr>
<td>23</td>
<td>The student does not have access to ongoing performance feedback.</td>
<td>–2</td>
<td>–3</td>
<td>–2</td>
<td>–2</td>
<td>–2.25</td>
</tr>
</tbody>
</table>
have been informative, it was the statements being sorted that were the actual sample within the Q-methodology, rather than the participants themselves (Akhtar-Danesh et al., 2007).

**Data Collection**

Consenting students participated in the Q-sort activity led by one of the authors (L.A.K.). Individual students were provided with 43 cards and a blank template. Each double-sided card contained a single typed statement from the course list on one side and a randomly assigned number on the reverse side. The template contained 43 spaces arranged as an inverted pyramid with the two endpoints labelled as *most disagree* (–5) and *most agree* (+5). Participants were instructed to consider the extent to which they agreed with each statement that was a factor in determining when “It is most unsafe in the clinical setting.” Then, each participant identified the final ranking of each statement by recording its assigned number on the blank template and submitted them for analysis. The Figure provides an example of a completed Q-sort.

**Data Analysis**

A total of 59 fourth-year baccalaureate students submitted completed Q-sort templates—the units of analysis. By using the PQ method, version 2.11 software (Schmolck, 2002), centroid factor analysis, and varimax rotation, four discrete viewpoints and a single consensus viewpoint were generated. In deference to the traditional item-factor analysis, this analysis used in our study is a by-participant factor analysis, which identifies correlations between those who share common and divergent viewpoints (Akhtar-Danesh et al., 2008). Commonalities and differences among these viewpoints offered pragmatic utility, in accordance with the research question. Statistically significant similarities in the ranking of individual statements across the factors comprised the consensus viewpoint, whereas a discrete viewpoint represents a statistically significant ranking of statements shared by a subgroup of participants. Discrete viewpoints suggest like-mindedness among a cohort of students concerning what is most unsafe in the clinical setting. A conceptual descriptive label was initially assigned to each viewpoint by two of

### TABLE 2

**Distinguishing Statements for Discrete Viewpoint 1: Vulnerable Student**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>View 1</th>
<th>View 2</th>
<th>View 3</th>
<th>View 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>The clinical educator demonstrates a lack of competence in his or her role.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>The student feels overwhelmed by course requirements.</td>
<td>2</td>
<td>–4</td>
<td>–2</td>
<td>–4</td>
</tr>
<tr>
<td>10</td>
<td>The student does not respect the rights of patients.</td>
<td>–1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>13</td>
<td>The student does not provide accurate, relevant, and timely documentation of patient care.</td>
<td>–2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>26</td>
<td>The student has a large gap in time between practice placements.</td>
<td>–1</td>
<td>–4</td>
<td>–3</td>
<td>–4</td>
</tr>
<tr>
<td>28</td>
<td>The clinical educator does not assign clinical learning experiences consistent with the student’s learning needs.</td>
<td>–3</td>
<td>0</td>
<td>0</td>
<td>–1</td>
</tr>
<tr>
<td>32</td>
<td>The clinical educator does not regularly document evaluations of the student’s performance.</td>
<td>–4</td>
<td>–3</td>
<td>–1</td>
<td>–3</td>
</tr>
</tbody>
</table>

**Note.** View = viewpoint; 1 = vulnerable student; 2 = unprepared student; 3 = unknowing student; 4 = distanced student.

### TABLE 3

**Distinguishing Statements for Discrete Viewpoint 2: Unprepared Student**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>View 1</th>
<th>View 2</th>
<th>View 3</th>
<th>View 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>The student fails to perform care consistent with clinical guidelines and standard procedures (hand washing, confidentiality, body mechanics).</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>The student lacks the knowledge to assume care of assigned patients.</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>The student avoids consultation and collaboration with the clinical educator and other health team members.</td>
<td>–2</td>
<td>1</td>
<td>0</td>
<td>–2</td>
</tr>
<tr>
<td>41</td>
<td>The clinical educator does not provide constructive feedback in a confidential manner.</td>
<td>–4</td>
<td>0</td>
<td>–3</td>
<td>–2</td>
</tr>
<tr>
<td>24</td>
<td>The student is evaluated as successful despite a pattern of unmet clinical expectations.</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>21</td>
<td>The clinical educator does not appropriately guide student practice.</td>
<td>1</td>
<td>–1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Note.** View = viewpoint; 1 = vulnerable student; 2 = unprepared student; 3 = unknowing student; 4 = distanced student.
the authors (S.M., P.M.). These labels were derived and refined through concurrent content and structural and interpretative analysis of each individual viewpoint. As the process of analysis unfolded, participants met with the authors to ascertain their opinions about the preliminary labels (Gallagher & Porock, 2010). On completion of the independent analysis by each author, the entire team engaged in a consensus process to finalize the interpretation of the Q-sort. This consensus resulted in the development of a typology that specified five types of contexts and students at risk for unsafe clinical practices.

**RESULTS**

A total of five perspectives about unsafe student practices were identified through Q-analysis. Collectively, these viewpoints constitute a typology of unsafe student clinical practices created from the Q-sort rankings, which revealed the subjective attitudes, perspectives, and beliefs of the participants. The statements within the consensus viewpoint represent the perspective shared by all participants, regardless of the discrete viewpoints to which their Q-sort aligned. Therefore, the consensus viewpoint, labeled as the displaced student, demonstrates participants’ overall shared understanding of when it is most unsafe in the clinical practice setting. Alternatively, each of the four discrete viewpoints, the vulnerable student, the unprepared student, the unknowing student, and the distanced student, represents a unique perspective of unsafe clinical practices. Discrete viewpoints were differentiated by a statistically significant difference in the ranking of statements.

**TABLE 4**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>View 1</th>
<th>View 2</th>
<th>View 3</th>
<th>View 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>17</td>
<td>The student is unable to modify care based on emerging patient priorities.</td>
<td>0</td>
<td>1</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>The student lacks the knowledge needed to assume care of assigned patients.</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>16</td>
<td>The student avoids consultation and collaboration with the clinical educator and other health team members.</td>
<td>–2</td>
<td>1</td>
<td>0</td>
<td>–2</td>
</tr>
<tr>
<td>37</td>
<td>The formal evaluation processes are unclear.</td>
<td>–5</td>
<td>–5</td>
<td>0</td>
<td>–3</td>
</tr>
<tr>
<td>40</td>
<td>The student is taught to cut corners or guided to do things differently than what was taught in school.</td>
<td>2</td>
<td>1</td>
<td>–1</td>
<td>3</td>
</tr>
</tbody>
</table>

**Note.** View = viewpoint; 1 = vulnerable student; 2 = unprepared student; 3 = unknowing student; 4 = distanced student.

**TABLE 5**

<table>
<thead>
<tr>
<th>No.</th>
<th>Statement</th>
<th>View 1</th>
<th>View 2</th>
<th>View 3</th>
<th>View 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>The student is taught to cut corners or guided to do things differently than what was taught in school.</td>
<td>2</td>
<td>1</td>
<td>–1</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>The student rushes through care.</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>30</td>
<td>Clinical educators and professors do not regularly discuss student’s progress and expectations.</td>
<td>–3</td>
<td>–3</td>
<td>–3</td>
<td>0</td>
</tr>
<tr>
<td>39</td>
<td>The student responds defensively to constructive feedback.</td>
<td>–3</td>
<td>–2</td>
<td>–4</td>
<td>–1</td>
</tr>
<tr>
<td>37</td>
<td>The formal evaluation processes are unclear.</td>
<td>–5</td>
<td>–5</td>
<td>0</td>
<td>–3</td>
</tr>
<tr>
<td>14</td>
<td>The student has difficulty communicating (verbally or nonverbally).</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>–3</td>
</tr>
<tr>
<td>12</td>
<td>The student is unable to control his or her nervousness.</td>
<td>0</td>
<td>–2</td>
<td>–2</td>
<td>–5</td>
</tr>
</tbody>
</table>

**Note.** View = viewpoint; 1 = vulnerable student; 2 = unprepared student; 3 = unknowing student; 4 = distanced student.
Displaced Student

A single consensus perspective, labeled the *displaced student*, composed of nine statements of agreement, was identified (Table 1). Although this perspective identifies that individual students are predominantly accountable for their own actions, the participants recognize challenges in the processes that are intended to support their progression toward safe autonomous practice. Students who demonstrate dishonesty (statement 6), a repeated pattern of errors (statement 11), and are not protective of their patients (statement 18) are professionally out of place. In addition, clinical educators were noted to assign a displaced student to learning situations that exceeded their competencies (statement 27), thus compromising their professional development. The negatively ranked statements (23, 42, and 43) referred to ineffectual communication among students and clinical educators that disabled transformative practice. Collectively, this suggests that a lack of guided reflection is perceived as least important to establish the student’s rightful place in practice. Ultimately, the displaced student is liable for his or her own actions, whether safe or unsafe.

Vulnerable Student

Six students shared a common viewpoint regarding the lack of learning partnership between the student and the educator, leading to a sense of increased vulnerability at the onset of the clinical placement. This viewpoint was entitled the *vulnerable student* (Table 2). Within this perspective, students felt overwhelmed by course requirements (statement 25) and felt they were taught by a clinical educator who they perceived as lacking role competence (statement 22). The vulnerability created by this situation led to a perceived decrease in the importance of adherence to clinical norms, which are patient focused, such as regard for patients (statement 10) and documentation of care (statement 13). The two least ranked distinguishing statements involved clinical educators who did not assign clinical learning experiences congruent with students’ learning needs (statement 28) or regularly documented students’ learning outcomes (statement 32).

Unprepared Student

The second viewpoint, shared by 11 students, was labeled the *unprepared student* (Table 3). The three positively ranked statements identified peers as being at risk for unsafe clinical practice were those who did not follow clinical guidelines (statement 8), lacked requisite knowledge (statement 5), and avoided interaction with clinical educators and other health team members (statement 16). Preparation for safety was primarily viewed as the student’s responsibility. Preparation was impeded when clinical educators did not provide learning-focused feedback (statement 41) or provided students with a distorted positive review (statement 24). The role of the educator in facilitating learning (statement 21) was de-emphasized as a vital component of safe learning.

Unknowning Student

The third viewpoint, entitled the *unknowing student* (Table 4), was shared by five students. Paramount to this perspective is the inability to adjust care based on changing patient needs (statement 17) and, remarkably, an overall knowledge deficit to assume client care (statement 5). Student avoidance of dialogue with on-site experts (statement 16) and ambiguity about evaluative processes (statement 37) contributed to this deficit in knowledge. Variability in learning expectations (statement 34) was perceived to have the least effect on students’ level of knowledge required for safe practice. A disregard for learning feedback (statement 39), patient information (statement 20), and practice guidelines (statement 1) were also perceived as less important for learning to be safe.

Distanced Student

The final factor, shared by 14 students, was titled the *distanced student* (Table 5). This perspective was composed of seven distinguishing statements, the majority of which were negatively ranked; meaning that this factor shared similar rankings with other factors in identifying the most unsafe aspects of clinical learning. However, in this factor, peers who were taught to cut corners, consciously deviating from evidence-informed practice (statement 40), were considered to be most at risk for engaging in unsafe clinical practices. In this viewpoint, students rushing through care was de-emphasized as vital for ensuring safe care. Therefore, cutting corners was more unsafe than rushing through care. In addition, rushing through care (statement 9) and regular academic discourse between faculty and clinical educators (statement 30) were perceived as neutral temporal dimensions of clinical safety. The statements of least importance to safety addressed student nervousness (statement 12), communication deficits (statement 14), and confusing evaluative processes (statement 37).

INTERPRETATION OF FINDINGS

The study findings yielded a theoretical typology of students who are at risk of engaging in unsafe clinical practice. Common
to all types of students within this schematic is an understanding that displaced students pose the greatest immediate threat to patient safety in the clinical environment. Dishonesty, a failure to protect patients from injury or potential harm, practicing outside of scope with educator sanctioning, and a pattern of errors were perceived as severe clinical transgressions. Collectively, such behaviors are blatant breaches of the professional and legal mandate for clinical safety (College of Nurses of Ontario, 2009). It has been suggested that retroactive errors analysis may serve as a growth-producing educative strategy (Hartrick, Doane, & Browne, 2011; Johnstone & Kanitsaki, 2006). All educators are obligated to provide learning opportunities for learners to develop clinical judgment skills and become nurses (Diekelmann & Scheckel, 2004; Tanner, 2006). In the complexity of the learning environment, the process of professional development, supported by effective educators, affords students the opportunity to learn through active successes and managed trials while maintaining patient and student safety (Ebright et al., 2006; Hanson & Stenvig, 2008; Tang, Chou, & Chiang, 2005). Inexperienced and potentially unsafe practitioners have been identified as high liability risks (Mustard, 2002).

Erroneous practice by displaced students is not likely attributable to isolated human errors, chance, or mitigating circumstances. Displaced students therefore must be immediately removed from the clinical practice setting. Educators’ responsibility to safeguard patients through removal of this group of students from the bedside is more than an act of bravery (Luhaanga et al., 2008). Findings of this study support that it is imperative to respond to identified threats to patient safety (Canadian Nurses Association, 2009), and this trumps students’ right to care for others. Systemic individual and collective efforts by students, patients, practitioners, educators, tasks, and systems are necessary to uphold a culture of safety. Reentry of the student to the clinical environment for learning may be possible with remediation.

Findings from this study suggest that patient safety, in the experiential learning context, is also threatened in the presence of four discrete types of unsafe students—vulnerable, unprepared, unknowing, and distanced. Each of the four types is identifiable by unique cognitive, affective, relational, and behavioral indicators. The students are made vulnerable when overwhelmed by program expectations and compounded by partnering with an educator who is perceived to be incompetent in his or her role. Research shows that students overwhelmed by program expectations may present with anxiety that predisposes them to learning impediments and negative clinical performance (Melo, William, & Ross, 2010). In turn, this heightened risk for unsafe clinical practice is magnified in the absence of a secure learning partnership between learners and educators (Diekelmann & Scheckel, 2004). Purposeful interactions between students and educators, with the intent that learning occurs, is a fundamental aspect of a transformative curriculum (Bevis & Watson, 1989), such as that seen in our study setting.

McGregor (2007) found that unsatisfactory clinical performance and failure are associated with a compromised learning partnership. Students evaluate clinical educators’ competency through demonstration of their nursing knowledge and skills, interpersonal strategies, and teaching abilities (Hanson & Stenvig, 2008; Vaismoradi et al., 2011). Findings of this study also support the need for clinical educators to maintain and strengthen role competencies. In addition, strategic articulation, as well as demonstration of educators’ role competency at the onset and throughout clinical experiences, should be planned and overt (Evans, 2000). The risk for unsafe clinical practice by vulnerable students may be addressed in part through the development and praxis of role competence by clinical educators, coupled with strategies to manage anxiety.

Another grouping within the typology was the unprepared student. Such students are identifiable by a general lack of knowledge to assume care, a failure to adhere to standards, and avoidance of engagement for learning. Collectively, these behaviors are indicative of a student at risk of being unsafe, as care is assumed without preparatory knowledge and opportunities to translate knowledge into practice. The unprepared student may be difficult to identify as he or she purposefully conceals his or her lack of preparation through avoidance. Such behaviors prevent the development of a connected relationship for learning from successes and mistakes (Gillespie, 2005). The absence of dialogue for knowledge impedes safe practice by interfering with students’ development of clinical judgment. The culture of safety, as described by the Canadian Patient Safety Institute (2008), is jeopardized when a student does not prepare to meaningfully engage in the learning process. Thereby, the educator is restricted in both genuinely supporting the students’ potential and safeguarding patients.

The group of students referred to as unknowing is characterized by a general lack of practical and theoretical knowledge. Theoretical and experiential knowledge is viewed as essential to critical inquiry and clinical judgment for the development of clinical competence (College of Nurses of Ontario, 2007). The knowledge deficits of this grouping of students render them at risk for immediate unsafe clinical practices. In an integrative review of evidence concerning novice nurses’ errors, Saintsing, Gibson, and Pennington (2011) reported that critical thinking, informed by knowledge competency, lessens the potential for mistakes and ultimately circumvents their occurrence. Without efforts to identify unknowing students, educators may inadvertently support a cadre of new practitioners who have not been cultured in a knowledge-informed orientation. Intervening to address knowledge deficits inherent among unknowing students has the potential to lead to “enhanced safety by preempting problems and preventing harm” (Richardson & Storr, 2010, p. 18).

The final grouping within the typology was that of the distanced student. This group of students has a theoretical foundation for safe clinical practice. However, they were subsequently exposed to alternate methods of care delivery influenced by variables such as the setting, the level of staff expertise, patient preference, and emerging evidence. The inherent risk in this disjunction is that students have yet to fully develop the clinical judgment to appraise when the boundaries of procedural modification are acceptable (Tanner, 2006). By exceeding such boundaries prematurely, students are misdirected toward practices that are increasingly removed from tolerable variations in practice. As the practitioner becomes distanced from evidence-informed standards, the risk of unsafe clinical practice increases (Gregory et al., 2007). The distanced student must be encour-
Allied to be mindful of the theoretical underpinnings of practice for appraisal, understanding, and application.

Although each of the four discrete factors formed the basis of mutually exclusive types of unsafe students, further research is needed to examine the practical application of this typology in the clinical setting. Our study generates the following questions for future research:

- What is the relationship between each of the groups of unsafe students within the typology?
- What teaching, learning, or remediation strategies are most appropriate for each group of students described in this typology?
- What aspects of the learning environment warrant transformation to maximize the development of safe clinical judgment?
- What are the strengths and barriers of experiential learning structures, such as preceptorships, clinical groups, and collaborative learning units, in minimizing the risk of unsafe student practices?

CONCLUSION

We know little about educational strategies designed to best produce safe students in clinical practice. This study extends the understanding of a culture of safety by presenting an important perspective—that of the student. Students’ subjective views about ways of being most safe—reflective, prepared, knowledgeable, competent, and engaged learners—were revealed through an exploration of unsafe clinical practices. Using this study’s typology as assessment criteria for the early identification of at-risk students and at-risk learning contexts may assist nurse educators in the implementation of their role as safety gatekeepers. Awareness of this typology may also inform students’ critical appraisal of self as a safe practitioner. With appropriate risk management and teaching and learning strategies, educators and students may work cooperatively toward the creation and maintenance of a culture of safety and the development of competent novice nurse.

REFERENCES


