Clinical experience is considered the core of nursing education. Clinical education provides opportunities to apply theory to the real world. Universities in the Middle East use mainly focus group, faculty-led clinical nursing education. In this method of clinical teaching, college faculty are assigned a small number of students (generally a 1:6 faculty-to-student ratio), and the assigned faculty member is available in the clinical area to guide and supervise the students for the entire shift. However, nursing education in clinical settings requires a varied approach, such as preceptorship. Staff nurses who act as preceptors play a unique and essential role in the clinical education of nursing students. Students are introduced to the practice expectations and real-life work environment of the nursing profession. Preceptorship is largely an experiential approach to clinical nursing education in which a reciprocal teaching and learning relationship is established among senior undergraduate nursing students, a staff nurse (known as a preceptor) with whom the learner is partnered, and a faculty member (Firtko, Stewart, & Knox, 2005; Myrick & Yonge, 2004, 2005).

Preceptorship has been shown to be an effective method of clinical education because it assists students in developing clinical competence and confidence in making the transition to the role of professional nurse. A descriptive study by Kim (2007) found that nursing competency skills among senior nursing students were positively related to participation in a clinical preceptorship program. When used as the primary approach to the clinical education of senior nursing students, the
The preceptorship model aids in the smooth transition to the staff nurse role and reduces reality shock after graduation (Kim, 2007).

The preceptorship model was introduced at the college of nursing at Sultan Qaboos University in 2006. This method of clinical education was used to guide the final-year nursing students during their advanced clinical nursing course in their clinical posting at Sultan Qaboos University Hospital. This model was introduced with the intention of facilitating senior students’ competence through the transition from student to graduate. Until the introduction of the preceptorship model, the students at the college of nursing were used to focus group faculty-led clinical education. The teaching model was structured so that each nursing student registered for the advanced clinical nursing course in the final semester of the bachelor’s degree program was partnered with a preceptor identified by the head nurse of the clinical practice unit. The assigned clinical faculty member of the college of nursing who supports triadic function acted as an educational resource person, a consultant as well as a link between clinical practice and the academic program to facilitate preceptorship. The college faculty participated in clinical evaluation and also collected feedback from preceptors while finalizing student evaluations. At the beginning of the semester, all preceptors were invited to attend meetings with the faculty to discuss the objectives of preceptorship. Each preceptor and preceptee received written guidelines about pedagogical approaches, students’ objectives and outcomes, and evaluation forms. In addition, the preceptors were invited to attend a preceptorship workshop offered by the college of nursing to ensure that all preceptors understood the teaching and evaluation methods.

No previous studies had evaluated staff nurses’ perceptions of the teaching and learning process of students under the preceptorship model in Oman. This study explored preceptors’ perceptions of final-year nursing students’ clinical teaching and learning process. Preceptors’ feedback on students’ clinical teaching and learning will yield credible information that can help in revisiting the idea of clinical teaching and learning throughout the clinical courses in the curriculum.

LITERATURE REVIEW

Nursing requires integration of practical and theoretical knowledge, and clinical practice is significant for the professional development of undergraduate nursing students. Clinical instruction during the academic program should provide learning opportunities that aid in the transition to the graduate role. Nurse preceptors remain the key providers of individualized, experiential learning opportunities for students in professional practice courses. The preceptor model of clinical teaching is widely used in baccalaureate nursing education (Lilbridge, 2007). It has become the primary approach to clinical teaching in undergraduate nursing programs in many countries, such as the United States, Canada, the United Kingdom, and Australia (Myrick & Yonge, 2005). The preceptor acts as a role model, teacher, facilitator, guide, and evaluator (Bourbonnais & Kerr, 2007; Burns & Grove, 2005). Applying the preceptorship model, the preceptor guides and supports the preceptee in providing nursing care to patients. As students’ competencies increase, they become more independent in providing care. The role of a preceptor in participating with the clinical instructor is a major determinant in creating a supportive learning environment.

Many studies have reported the positive effect of the preceptorship model of clinical teaching. Myrick and Yonge (2004) examined the role of preceptorship in enhancing critical thinking skills in nursing education. Results showed that the preceptor’s behavior is important in enhancing critical thinking in nursing students.

A phenomenological approach that explored clinical preceptors’ experiences and the meanings of their lives in clinical teaching identified themes such as teaching is learning, experiencing bittersweet moments, being a role model, and acting as a mother. The authors concluded that clinical preceptors experience diverse feelings, both positive and negative (Liu, Lei, Mingxia, & Haobin, 2010). From the perspective of new graduate nurses, the effectiveness of clinical instruction depends on certain themes, such as the role and support of the clinical facilitator or preceptor, staff interaction and attitudes in the clinical setting, the opportunity to practice clinical skills, the student’s level of confidence, the degree of one-to-one instruction, and the time that the preceptor was available to spend with the student (Cooper, Taft, & Thelen, 2005). A comparison study of nursing students’ satisfaction with their supervision from preceptors and teachers reported that the fulfillment of learning outcomes for clinical practice was rated high by preceptors (Löfmark, Thorkildsen, Råholm, & Natvig, 2012).

It is often difficult for faculty to be physically present for all student learning opportunities, and faculty may entrust staff nurses to guide and teach the competencies that staff nurses perform. The faculty member acts as a liaison between students and preceptors to ensure that the educational objectives of the course are achieved. The faculty member provides the essential link between clinical practice and the academic program. In this role, the faculty member orients the student and the preceptor to the preceptorship experience and to each member’s role and supports effective triadic function by acting as
an educational resource and consultant throughout the professional practice course.

Developing a preceptor–faculty partnership would help to provide excellent clinical experiences for students (Mallette, Loury, Engelke, & Andrews, 2005). Because the relationship between clinical staff nurses and students directly affects the quality of the learning experience for students, the nurse’s perception of students is important to assess (Slaughter-Smith, Helms, & Burris, 2012). Currently, when clinical facilities are limited and student enrollment is increased, understanding the preceptors’ point of view can enhance the preceptorship model of clinical teaching to improve students’ competence and transition to practice.

Because the preceptorship model of teaching and learning is used in the college of nursing only in the final year of clinical education to enhance essential competencies and foster the transition from student to graduate nurse, this study explored preceptors’ perceptions of the clinical teaching and learning of advanced nursing students. This study also explored factors that preceptors perceived as hindering and favoring preceptorship to help to identify the strengths and limitations of the preceptorship model. Preceptors’ suggestions would aid the future preceptorship model, with further scope to enhance the relationship between service and academia to improve graduate competencies. This understanding would also help to target courses designed for preceptors to increase their knowledge and skills for preceptorship. The collaboration between academia and practice can ensure the achievement of excellent learning experiences for the graduating student. The overall goal of the study was to identify strategies to assist preceptors to ensure optimal student clinical teaching and learning.

METHOD

This descriptive, exploratory, quantitative, qualitative survey was conducted in the hospital attached to Sultan Qaboos University. Formal approval from the college of nursing’s research and ethics committee was granted.

Permission to contact preceptors for data collection was obtained from the nursing directorate of the university hospital. All participants were informed about the purpose, voluntary nature, and anonymity of the study, and written consent was obtained. Participants were assured that their answers would remain confidential and that only aggregate data would be reported.

Population

All known (N = 100) nursing preceptors at the university hospital who were involved in clinical teaching and learning of the advanced clinical nursing course from fall 2006 until spring 2011 were invited to participate in the study. These preceptors have been working in the same clinical areas for many years and receive advanced nursing students of the same college of nursing for preceptorship on a regular basis.

Sample and Sampling

This study used a convenience sample based on accessibility of potential respondents. The preceptors who were available at the time of data collection (n = 76) participated in the study, representing a response rate of 76%.

Instrument

Because there was no validated instrument that could meet the objectives of this study, a 30-item self-administered questionnaire was constructed by the researchers using a five-point Likert scale. The tool consisted of three sections. Section I included demographic characteristics. Section II consisted of 30 statements distributed on a five-point Likert scale that ranged from 5 (most of the time) to 1 (not at all). Thirty statements were divided into six categories: teaching and learning, critical thinking, evaluation, communication, professional behavior, and personal traits. Section III consisted of part 1, with seven close-ended questions, and part 2, with three open-ended questions. The seven close-ended questions were addressed to determine views on the preceptors’ role, and the three open-ended questions were designed to gain insight into the preceptors’ perceptions of the factors that facilitated and hindered preceptorship as well as preceptors’ suggestions for improvement. Content and face validity were checked by reviewing the literature to confirm the perception-related variables.

Research and clinical education experts reviewed the questionnaire and considered all 30 items suitable. To check face validity of the tool, a pilot study was performed with 10 preceptors who were excluded from the main study. One question in the demographic section was reworded after the preceptors’ comments were received. Cronbach’s alpha reliability coefficient was 0.81, which ensured internal consistency.

Data Collection

After ethical approval was obtained from the college of nursing’s research and ethics committee and permission for data collection was obtained from the nursing directorate of the university hospital, the researchers personally contacted the identified preceptors who met the inclusion criteria and obtained written informed consent from each participant. A convenience sample of
The sample of 76 preceptors ($n = 76$) spoke English. Everyone had undergone a preceptor course offered by the hospital, but only 42.1% had been exposed to the preceptor workshop offered by the college of nursing. Table 1 shows that 81.6% of the preceptors were female and 86.9% of them had more than 10 years of experience. The majority (84.2%) had more than 5 years of experience in the current setting.

The preceptors’ feedback on the six categories in Section II of the questionnaire (Table 2) showed that 87% ($M = 4.23, SD = 0.76$) of preceptors perceived that the students responded positively to their constructive feedback. Seventy-five percent of preceptors reported that students showed professional behavior ($M = 4.21, SD = 0.98$) and effective communication ($M = 4.32, SD = 0.84$). Most (72.4%) of the preceptors reported acceptable personal traits of the students ($M = 4.15, SD = 0.99$). Fifty-nine percent ($M = 3.70, SD = 0.94$) of the respondents positively rated students’ critical thinking abilities, and only 54% ($M = 3.91, SD = 0.94$) of the preceptors positively rated teaching and learning experiences, especially the correlation between theory and practice.

The preceptors’ opinions obtained from part 1 of the qualitative data are shown in Table 3. The majority of preceptors (71.1%) indicated that time constraints were a major concern. Approximately 70% reported commitment to patient care rather than preceptorship as a priority. A need for more formal preceptorship workshops conducted by the college of nursing was noted by 68.4% of preceptors. In terms of remuneration, 64.5% were in favor of having rewards. The expected rewards were explored as a seventh question that showed that 60.5% preferred credentials in the form of certificates, 32.5% preferred monetary benefits, and the remaining 7.0% opted for both.

### Table 1
**Distribution of Demographic Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14 (18.4)</td>
</tr>
<tr>
<td>Female</td>
<td>62 (81.6)</td>
</tr>
<tr>
<td><strong>Qualification</strong></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>42 (55.3)</td>
</tr>
<tr>
<td>Bachelor of science in nursing</td>
<td>34 (44.7)</td>
</tr>
<tr>
<td><strong>Current designation</strong></td>
<td></td>
</tr>
<tr>
<td>Senior staff nurse</td>
<td>39 (51.2)</td>
</tr>
<tr>
<td>In-charge nurse</td>
<td>37 (48.8)</td>
</tr>
<tr>
<td><strong>Total years of experience</strong></td>
<td></td>
</tr>
<tr>
<td>5 to 10</td>
<td>10 (13.1)</td>
</tr>
<tr>
<td>&gt;10</td>
<td>66 (86.9)</td>
</tr>
<tr>
<td><strong>Total years of experience at Sultan Qaboos University Hospital</strong></td>
<td></td>
</tr>
<tr>
<td>&lt;5</td>
<td>12 (15.8)</td>
</tr>
<tr>
<td>&gt;5</td>
<td>64 (84.2)</td>
</tr>
<tr>
<td><strong>Preceptor experience at Sultan Qaboos University Hospital</strong></td>
<td></td>
</tr>
<tr>
<td>2 to 4</td>
<td>36 (47.4)</td>
</tr>
<tr>
<td>&gt;4</td>
<td>40 (51.6)</td>
</tr>
</tbody>
</table>

### Table 2
**Preceptors’ Responses in Six Categories of Clinical Learning**

<table>
<thead>
<tr>
<th>Category</th>
<th>M</th>
<th>SD</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation (constructive feedback)</td>
<td>4.23</td>
<td>0.76</td>
<td>87</td>
</tr>
<tr>
<td>Communication</td>
<td>4.32</td>
<td>0.84</td>
<td>75</td>
</tr>
<tr>
<td>Professional behavior</td>
<td>4.21</td>
<td>0.98</td>
<td>75</td>
</tr>
<tr>
<td>Personal traits</td>
<td>4.15</td>
<td>0.99</td>
<td>72.4</td>
</tr>
<tr>
<td>Critical thinking</td>
<td>3.70</td>
<td>0.94</td>
<td>59</td>
</tr>
<tr>
<td>Teaching and learning—theory to practice correlation</td>
<td>3.91</td>
<td>0.94</td>
<td>54</td>
</tr>
</tbody>
</table>

### Themes in Qualitative Data
The respondents were provided with an opportunity to share additional thoughts on the factors that either facilitated or hindered preceptorship and to make suggestions for improvement. Three questions were asked in the open-ended part of the questionnaire:

**76 preceptors who were available during the data collection period, April 15 to May 31, 2011, self-rated the tool. Each participant took 10 to 15 minutes to complete the questionnaire.**

**Data Analysis**
Data were analyzed with both quantitative and qualitative methods. For quantitative analysis, SPSS®, version 16.0, software was used. Descriptive statistics were used to describe the sample, including frequency, percentage, mean, and standard deviation. Participants who rated the variables 4 or 5 on the Likert scale were considered as having positive perceptions. For qualitative data, the main themes were identified.
What are the factors that facilitated the teaching and learning experiences of students?
What are the factors that hindered the teaching and learning experiences of students?
What is your opinion of the number of shifts that students should work with preceptors?

Half a page was left blank to allow respondents to answer these questions and share their thoughts and experiences. These responses were considered to encourage teaching and learning in the transition phase.

The open-ended question that sought respondents’ opinion on the number of shifts needed to make preceptorship effective showed that 76% recommended having one preceptor for all assigned shifts. The remaining 24% of respondents recommended up to one fourth of student shifts with other identified preceptors on the same unit. The suggested factors that facilitated preceptorship were adequate and protected time, good communication between student and preceptor, and good correlation between theory and practice. The factors that were identified as hindering preceptorship were busy wards with a heavy workload; lack of interest, commitment, and direct patient care by students; a weak correlation between theory and practice; and a gap in communication between the student and preceptor regarding shift duty changes because the preceptor and student were on different shifts. The following key themes were identified from participants’ responses:

- Lack of motivation, commitment, and direct patient care by students.
- Need for protected time for preceptorship.
- Lack of understanding of the benefits of preceptorship with just one preceptor.

### Lack of Motivation, Commitment, and Direct Patient Care by Students

The following quotes reflect respondents’ comments:

- Students prefer to assist in preparing for procedures, medicine administration, etc., to direct nursing care involving hygiene. They always wait until I initiate the nursing care. Students are always interested in getting patient information from the computer rather than directly from the patient.
- They prefer to assist in holding and turning the patients rather than doing the bedsore dressing or wiping down the patient or changing the diaper. It takes a lot of effort to get them to initiate care.

### Need for Protected Time for Preceptorship

Participants offered the following comments:

- I really want to closely guide and teach my students by making them practice along with me and explaining to them, but there are too many things to be done in a short time as the ward is very busy with a heavy workload. Our unit doesn’t reduce the work assigned to me, even when I have students to precept. Sometimes I do shift in charge duty along with precepting.
- Precepting requires me to focus on students achieving their learning objectives. However, patient load, the demands of the working unit, and a shortage of staff due to other staff taking leave make it difficult to pay adequate attention to the students. We are not satisfied with our clinical teaching either.

### Lack of Understanding of the Benefits of Preceptorship With Just One Preceptor

The respondents made the following comments:

- “Most students change their shift according to their convenience, and they communicate with the college faculty and seldom inform me. My plan for teaching keeps changing as they do not follow my shifts. This makes it difficult to cover their objectives. Many times I need to...
ask my colleague to precept them, which results in lack of continuity.
• Students just want to complete the specified number of shifts, irrespective of the guidance provided by the primary preceptor. This may lead to multiple confusing messages and will affect the students’ performance.

DISCUSSION
The findings of this study indicated that preceptors had generally positive perceptions of students’ communication skills with patients. Preceptors also commended the professional behavior of students and reported that students were accountable, safe, and confident. Preceptors also rated positively students’ ability to respond promptly and positively to feedback during the evaluation process. These findings are not consistent with the study findings of Hickey (2009). The negative perception of preceptors regarding the correlation between theoretical and psychomotor skills is consistent with the findings of Hickey (2009) and Utley-Smith (2004). However, the preceptors perceived that students had effective communication skills, which is in contrast to the findings of Hickey (2009). In this study, only 59% of preceptors perceived that students use critical thinking, and this finding is in agreement with the previous studies of Hickey (2009) and Wang, Chien, and Twinn (2012), who found that new graduates lacked primarily psychomotor and critical thinking skills.

Workload commitments and lack of time were identified by 70% of preceptors as factors hindering preceptorship. This was in agreement with the study of Huybrecht, Loeckx, Quaeyhaegens, De Tobel, and Mistiaen (2011), in which preceptors were stressed and had little or no job satisfaction because of lack of time and had problems developing meaningful clinical teaching roles because of other workload commitments. Preceptors in both studies expressed the need for protected time, support, feedback, and recognition from management for undertaking the preceptor role. The findings of McCarthy and Murphy (2010) were in congruence with the current study because they found that a majority of preceptors described their experience as stressful and burdensome and stated that they did not feel adequately supported by their clinical managers.

The study participants reported a need to meet faculty more often to obtain support and become engaged in the educational process. This finding is in agreement with the findings of Mallette et al. (2005) and Cassidy et al. (2012). Their results showed that factors such as receiving feedback on the function of preceptor, being able to plan and prepare clinical education, receiving support from unit managers, and having specific education in supervision explained nurses’ overall view of their performance as preceptors. Mårtensson, Engström, Mamhidir, and Kristofferzon (2013) supported the current findings that showed preceptors’ need for recognition because most of the respondents suggested certificate credentials as incentives rather than monetary recognition. This observation is also congruent with the findings of Baltimore (2004) and Henderson, Fox, and Malko-Nyhan (2006). Henderson et al. (2006) found that personal enrichment and nonmonetary rewards and benefits appear to result in the most positive reaction by clinical preceptors. They also concluded that intrinsic rewards and opportunities for personal and professional growth were identified as the most important reasons for taking on the role of preceptor.

This study identified new factors that facilitate preceptorship and enhance students’ teaching and learning process. These included having the preceptee work all shifts with the same preceptor, intense motivation by the student, and the student’s commitment to provide direct patient care. These variables were supported by the findings of Slaughter-Smith et al. (2012). The factors identified in this study as hindering preceptorship were in congruence with the findings of Barker and Pittman (2010) and Duteau (2012), who reported that effective preceptorship is hindered by excessive patient workload, lack of protected time for preceptorship, and lack of adequate communication.

Limitations
The study results reflect the current setting, so the findings may not be generalizable. However, the findings are significant and provide valuable insight into preceptors’ perspectives on nursing students’ clinical learning.

Implications
The results of the study provide nursing faculty with insight into staff nurses’ perception of students’ teaching and learning activities in the clinical unit as well as preceptors’ opinion of the process of preceptorship and its challenges. Staff nurses must be supported by nurse managers in the complex role of preceptorship through appropriate strategies such as provision of resources and education to carry out their role, assistance in adjusting workloads, and recognition at employee events or in organizational newsletters. For future nurses, the preceptor role is crucial in developing adequate competency and confidence in the clinical setting. Therefore, preceptors must be provided with information on the principles of adult education as well as techniques for developing learning objectives, using effective teaching and learning styles, and giving feedback and evaluation. This feedback must be provided in
collaboration and constant interaction with faculty. Faculty support and workshops for preceptors on student assessment and evaluation are helpful ways to promote better partnerships between academia and service. Exploration of motivational factors that foster preceptor roles and time and motion studies of preceptors’ actual engagement in clinical teaching could yield a clearer picture of preceptorship. Faculty reflection on preceptorship will also inspire investment in professional preceptorship practice for students at the college of nursing.

REFERENCES

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