A study on peer feedback training on nursing students’ formulation of task, process and self-regulation feedback during skills laboratory sessions

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Outline

- Introduction
- Background
- Research Methods
- Data Collection
- Data Analysis
- Discussion
- Limitations
- Implications for future studies
Introduction

Students will learn to:

1. perform a clinical procedure (wound care and STO);
2. provide feedback to their peers during lab sessions

Essential skills required:
- Integration of technical clinical skills with effective assessment,
- prioritization,
- critical thinking,
- clinical reasoning and communication skills
Learning Activity in a Nursing Laboratory (Lab)

**Facilitator**
- Skill demo
- Moves around the lab to small groups – observe & provide feedback

**Students**
- Practice on classmate/manikin/standardized patients in sub-groups
- Self-directed Learning (SDL)
  - 2 hours

**Debrief session**
- 10 mins

Total Time:
- 40 mins
- 50-60 mins
- 10 mins
- 2 hours
Situation

Issue: Inappropriate use of resources

Issue: Under-utilised SDL lab sessions

Limited time for supervised lab practice

Issue: Some students may not have practiced under supervision

Learning Mindset

Issue: Just in time practice and revision

Inability to identify students who need help early

Issue: Possible failure for weaker students

Issue: Some students may not have practiced under supervision
What is feedback?

- Information provided by an agent (e.g., teacher, peer, book, parent, self/experience) regarding aspects of one’s performance or understanding (Hattie & Timperley, 2007).

- **Dialogic processes** and activities which can support and inform the student on the current task, whilst also developing the ability to self-regulate performance on future tasks (Carless et al., 2011, p.397).
Peer feedback occurs when students offer each other advice about their work which incorporates:

- what has been done well in relation to the **success criteria**
- what still needs to be done in order to achieve the **success criteria**
- advice on how to achieve that improvement.
How is feedback used in learning?

**View**
- **Being taught**
  - Learner is a passive recipient of knowledge
  - Feedback is mainly verification or transmission of knowledge of correct responses

- **Individual sense-making**
  - Learner is actively constructing knowledge by drawing connections with prior experiences
  - Feedback involves activating and building on prior knowledge and enriching the learner's mental representations

- **Building knowledge as part of doing things with others**
  - Learner is actively co-constructing knowledge with others
  - Feedback involves learners working collaboratively to share and build on each other's ideas and suggestions

**Learner's Behaviour**

**Use of feedback**

*(Watkins, 2011)*

Recommended view of feedback
Benefits

• Think more deeply about the activity being assessed
• Gain insight on how others tackled similar clinical problems
• Learn how to give & receive constructive feedback
• Become more self-driven and self-regulated learner

(Ladyshewsky & Gotjamamos, 1996; Rush et al, 2012)
Challenges

• Discomfort and distrust (Hanrahan & Isaacs, 2001)
• Consider peers as not the ‘Expert’ (Jiang & Yu, 2014)
• Production of non-correction oriented activities (complimentary words) rather than correction oriented feedback (critical comments, valuable clarifications and constructive suggestion (Liou & Peng, 2009))
Supporting studies

I. ‘Must Know’ conditions that benefit students from feedback in academic tasks.
- What good performance is (i.e. student must possess a concept of the goal of standard being aimed for)
- How current performance related to good performance (compare current with good)
- How to act to close the gap between current & good performance (Sadler, 1989)

II. Existing nursing related researches focus on academic writing, preparation for examination or in clinical attachment with more senior student coaching or partnering the junior student (Goldsmith, Stewart, Ferguson, 2006; Rush et al, 2012; Pereira et al, 2016)
Knowledge required at each level for peer feedback discussion

<table>
<thead>
<tr>
<th>Current level of understanding</th>
<th>Success criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmissive orientation</td>
<td>Peer feedback as information to close the feedback loop</td>
</tr>
<tr>
<td>Progressive and dialogic orientation</td>
<td>Peer feedback</td>
</tr>
</tbody>
</table>

- **Self-regulation level – conditional/meta-cognitive knowledge**
- **Process level – procedural knowledge**
- **Task level – declarative knowledge**

Research questions:

1. Does explicit training help students to provide feedback targeted at task, process and self-regulation levels?

2. Does explicit training help students to generate feedback at deeper levels?
Design

- Non-experimental study
- Year Two undergraduate nursing students
- Enrolled in Bachelor of Science (Nursing)
- Module – Medical-Surgical Nursing II
- Period – August to September 2016
- Topic – Wound Care and removal of sutures (STO)

- Week 1 – three hours of face-to-face training,
  Week 1, 3 & 5 - 2-hours of laboratory sessions on alternate weeks, each
  with one round of paired reciprocal peer feedback.

- Instruments -
  (1) Peer Feedback Rubric (PFR)
  (2) Peer Feedback Form (PFF)
Instruments

1. **Peer Feedback Form** (PFF) – Use during lab session/practice

2. **Peer Feedback Rubric** (PFR) – detailed guide consists of:
   
   - Principles & Standards of Care;
   - Key observable behaviours before, during and after the procedure (success criteria);

   - Tested with Teaching Members
   - Invited selected students from the past cohort to use the PFF and PFR

   **Content, Usefulness, Feasibility**
Method

- Week 1 - three hours of face-to-face training

  - Lecture & Seminar (3 hours)
  - Practice on writing feedback after watching a 10mins video on wound care & STO
  - Discussion on suggested feedback statements by trainer

What is peer feedback?

How to formulate written feedback according to Hattie & Timperley’s model?
No demo by Facilitator

- Week 1, 3 & 5 – 2 hours of laboratory sessions on alternate weeks, each with one round of paired reciprocal peer feedback.

- All Peer Feedback Forms (PFF) were collected at the end of each session

- PFF were returned on the next lab session

Method – Activities in the lab

Simple wound care
Removal of sutures (STO)

First round

Impaired wound healing care & STO

Second round

Complex wound care & STO

Third round
Method

- Week 1, 3 & 5 – 2 hours of **laboratory sessions** on alternate weeks, each with one round of **paired reciprocal peer feedback**.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Performed by</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Divide into 5 subgroups.</td>
<td>Facilitator</td>
<td>15 mins</td>
</tr>
<tr>
<td>2. Breakoff with (2) &amp; (2) or (3) within subgroups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Evaluation &amp; review of procedure for</td>
<td>Feedback from all subgroup members</td>
<td>60 mins (20 + 10 mins)</td>
</tr>
<tr>
<td>- Subgroup member(s) X 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Debrief on key points &amp; principles:</td>
<td>Facilitator</td>
<td>30 – 45 mins</td>
</tr>
<tr>
<td>- Task</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Process</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Self-regulation</td>
<td></td>
<td></td>
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</table>
Example: Students’ practice & peer feedback

Week 1

20mins + 10mins

Total student = 18
Data Collection

I. Peer Feedback Form
   ➢ Written feedback by students - coded and counted

II. Students’ feedback on the module
   ➢ obtained from module evaluation
### Table I. Frequency counts of written peer feedback by levels

<table>
<thead>
<tr>
<th>Feedback Levels</th>
<th>Session 1</th>
<th>Session 2</th>
<th>Session 3</th>
</tr>
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<tbody>
<tr>
<td>Task</td>
<td>70</td>
<td>68</td>
<td>24</td>
</tr>
<tr>
<td>Process</td>
<td>64</td>
<td>72</td>
<td>70</td>
</tr>
<tr>
<td>Self-regulation</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>136</td>
<td>140</td>
<td>94</td>
</tr>
</tbody>
</table>

**Examples**

- **Task**: "You forgot to indicate pain score."
- **Process**: "You have assessed patient's pain score and asked if he wanted analgesia. But, you need to teach the patient deep breathing exercises for relief if he refused analgesia."
- **Self-regulation**: Teacher's example: "It will be good if you verify with the patient whether his pain score has reduced prior to the procedure."
# Results (I)

Table I. Frequency counts of written peer feedback by levels

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<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Task</td>
<td>70</td>
<td>68</td>
<td>24</td>
<td>“You forgot to indicate pain score.”</td>
</tr>
<tr>
<td>Process</td>
<td>64</td>
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<td>Self-regulation</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Teacher’s example: “It will be good if you verify with the patient whether his pain score has reduced prior to the procedure.”</td>
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<td>TOTAL</td>
<td>136</td>
<td>140</td>
<td>94</td>
<td></td>
</tr>
</tbody>
</table>
## Results (II)

Table II. Frequency counts of surface & deep peer feedback statements

<table>
<thead>
<tr>
<th>Process Level</th>
<th>Week 1</th>
<th>%</th>
<th>Week 3</th>
<th>%</th>
<th>Week 5</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>52</td>
<td>81</td>
<td>57</td>
<td>79</td>
<td>46</td>
<td>66</td>
</tr>
<tr>
<td>Deep</td>
<td>12</td>
<td>19</td>
<td>15</td>
<td>21</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>Total</td>
<td>64</td>
<td>100</td>
<td>72</td>
<td>100</td>
<td>70</td>
<td>100</td>
</tr>
</tbody>
</table>
Examples of peer feedback:

- Surface process feedback in the first session:
  “[You] did not check the patient identifier”

- Deep process level feedback in the third session:
  “[You] asked for patient’s comfort level and pain score. [You] could have checked with patient regarding administration of pain killer prior to procedure.”
Discussion

1. Number of feedback

<table>
<thead>
<tr>
<th></th>
<th>Session 1</th>
<th>Session 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task level</td>
<td>Highest</td>
<td>Lowest</td>
</tr>
<tr>
<td>Process level</td>
<td>Lowest</td>
<td>Highest</td>
</tr>
</tbody>
</table>

2. Decrease in total number of feedback statements over the 3 sessions.

3. Increase in deep process level feedback.

Possible reasons:
1. Students are more familiar with the procedure leading to
   - errors or corrective feedback (task)
   - inclination to formulate process level feedback
   - better understanding of the success criteria (rubric)
2. No self-regulation level feedback in all 3 sessions (more time & support).
"There are videos on skills for the students to assess and watch at leisure/pre-lesson. It also allows the students to recap on how to perform the skills".

"Allows me to gain valuable techniques and reasoning behind certain practices".

"Teaches us the practical skills we really need and the thought process in application".

"There was a lot of ownership to be taken for this module - watching the videos for lab skills beforehand. It allows students to be motivated to learn more. Facilitation by the tutors were sufficient as well."
Areas for Improvement

“I do better with a live demo.”

“Maybe feedback from both tutor and peers is more useful”.

“It takes a lot of time and practice to understand how to write a good feedback because of all the different levels and criteria.”

“This is only useful for those who are open to critiques.”

“Leave out the classification and all is good. Feedback is good and needs no classification. Personal opinion. Cheers.”

Students’ perceptions on peer feedback approach
Limitations of study

1. Insufficient time for students to develop the skill to write 3 levels of feedback.

2. Not all students are motivated to pen down feedback for their peers.

3. Some students perceived that they are unable to learn from peers who are less familiarised with the skill than them.

4. Some students and lecturers are uncomfortable with the new initiative – no demonstration to students.
Implications for future study

1. Effective integration of peer feedback approaches in enhancing students’ understanding & application of the nursing process

2. Review of teaching materials such as video, rubric.

3. Study outcome may include investigating the relationship between the quality of the written feedback with students’ academic performance (Skills).

4. Training of Facilitators as well.
Acknowledgement

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Ms Lydia Lau Siew Tiang
Senior Lecturer, Alice Lee Centre for Nursing Studies, NUS

Year 2 undergraduates (AY2016-17)
Reference (I)


Reference (cont’d)


Questions