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Voluntary simulation workshops in nursing education
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Background
Changes in nursing education in Denmark towards an academic approach with more theory and less practical training have resulted in discussions regarding the lack of practical skills amongst novice nurses. A Danish study of students’ drop-out from the nursing education indicates that difficulties in combining theory and practice are one of the motivating factors behind the students’ decision to drop out (Jensen et al. 2008). Within the past year our faculty has conducted several projects with the aim of integrating simulation into the curriculum. Furthermore, voluntary simulation workshop has been carried out as an additional offer in the nursing education. The purpose has been to create an interactive and safe learning environment with integration of theory and practice and to prepare students for the complexity in a clinical setting.

Aim
The principle objective of this part of the project has been to test simulation based workshops with differentiated approaches based on voluntary participation and aiming at individual learning needs of especially motivated students. Furthermore, the aim was to evaluate the impact of the workshops on the students’ theoretical and practical learning outcomes.

Method
During fall semester in the academic year 2011/12 seven workshops of 2 hours were conducted with participation of 118 students in total from different levels of the nursing education. The workshops focused on both hands-on skills, communicative and teamwork skills and attention was continuously put on combining theory and practice.

Evaluation
A questionnaire using a 10 point scale (1-10) was conducted immediately after the workshops with the purpose of evaluating students’ self-perception of learning outcomes. Furthermore, the questionnaires included open ended qualitative questions with a formative design aiming at students’ judgment of the content and set up of the simulation workshops.

Results
97 students (response rate 82.2%) assessed their theoretical outcome on a 10 point scale with a mean score of 7.55 (SD 1.96), practical skills outcome mean 8.07 (SD 1.96), integration of theory and practice mean 8.27 (SD 1.62), general outcome mean 8.36 (SD 1.57) and outcome from simulation workshops as a method supporting individual learning needs with a mean of 8.64 (SD 1.37).

Voluntary workshops

<table>
<thead>
<tr>
<th>Main Topics</th>
<th>Simulation activities</th>
<th>Equipment</th>
<th>Participants</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Bed bath of bedridden patient</td>
<td>Bed bath – perineal care</td>
<td>Mannequins</td>
<td>1+2</td>
<td>1+2</td>
</tr>
<tr>
<td>2. Patient with urinary tract infection</td>
<td>Catheterization – Measurement of vital signs – Urine stix</td>
<td>Nursing Anne &amp; catheterization trainer</td>
<td>1+2</td>
<td>1+2</td>
</tr>
<tr>
<td>3. Positioning of stroke patient</td>
<td>Positioning of patient</td>
<td>Standardized patients</td>
<td>2-3-10</td>
<td>2-3-10</td>
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<tr>
<td>4. Oral &amp; tube feeding of patient</td>
<td>Oral feeding – Placement of duodenal &amp; feedingtube</td>
<td>Standardized patients &amp; Nursing Anne</td>
<td>2-3-10-14</td>
<td>2-3-10-14</td>
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<tr>
<td>5. Wound care management</td>
<td>Removal of necrosis – Bandaging</td>
<td>Pieces of meat</td>
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<td>6. Intravenous therapy management</td>
<td>Insertion of iv cannula – iv administration of drugs</td>
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<td>Module 10</td>
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<td>7. Cardiac arrest management</td>
<td>CPR – Communication in teams</td>
<td>Ambu Man Torso</td>
<td></td>
<td>Module 10</td>
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</tbody>
</table>

The team of instructors consisted of lectures with a nursing background, lectures with a scientific background, clinical experts from hospitals and a team of students functioning as assisting instructors.

Conclusion
Our results indicate that voluntary workshops have a positive effect on the students’ motivation and learning outcomes regarding both technical and non-technical skills. Voluntary and differentiated workshops increase motivation and respond to various learning styles and individual needs of the students.

Discussion
Students’ self-perception of learning outcomes demonstrate a good result of the workshops, however further research needs to be carried out to investigate impact of the simulation workshops on students’ examination results and transfer of skills to the clinical setting.

Reference

The main themes that derived from the open ended questions:

- Enhanced self-efficacy
- Enhanced integration of theory and practice
- Hands-on enhanced learning and motivation
- Enhanced interaction between facilitators and peers
- Enhanced possibility for reflection
- Enhanced facilitation/support
- Possibility for enhanced learning and motivation
- Possibility for enhanced learning and reflection