Dental education at the University of Tromsø, Norway

Outpatient undergraduate clinical teaching
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Dental education at the University of Tromsø, Norway

“The art and science of clinical dentistry”
University of Tromsø
The Norwegian Arctic University in April
University of Tromsø

The Norwegian Arctic University

The University Dental Hospital
Network of external clinics
The initiation
The Norwegian Parliament desided to establish dental education at the University of Tromsø, Autumn 2002

Official recommendations and guidelines for the Tromsø Dental School

The tasks

• Contribute to increase the number of dentists in Norway
• Specifically meet the need for dentists and specialists in Northern Norway
• Plan an evidence-based curriculum in accordance with EU requirements
• Focus on duties and responsibilities in the Public Dental Health Service
• Apply a decentralized educational model

Core references


Outpatient dental training

The aims → the planning process

**Student – related**
- Exposure to “real life” clinical conditions
- Develop clinical skills – volume and patient diversity
- Collaboration with the dental team and other health professions
- Develop knowledge, skills and attitudes with emphasis on Public Dental Health issues – a community approach with focus on prevention
- Emphasis on evidence-based treatment planning

**Society – related**
- Stimulate recruitment to the Public Dental Health Service
- Develop skills with relevance to Public Dental Health needs
- Quality-enhancement of the Public Dental Service through network building
- Valuable feed-back to the Dental School
Outpatient dental training

Logistics

• Whole 7th semester (4 mos) and 1/3 of 10th semester spent in external clinics
• A total of 20 public clinics involved with 2 students in each clinic
• Defined requirements for being accepted as an external teaching clinic
• Defined requirements for being a tutor
• Tutors attending calibration sessions one week per year at the Dental School in Tromsø
• Tutors compensated with 30% addition to their regular salary
• The clinics are compensated for reduced “productivity”
• Weekly network-based teaching sessions administered from Tromsø
Outpatient dental training

Logistics – details

• Whole 7th semester (4 mos) and 1/3 10th semester in external clinics
  
  Students are evaluated before start, tutors and students are informed about the result
  
  Students and tutors report the progress during the outpatient periods
  
  Final reports from both students and tutors are required at the end of each period

• Defined requirements for being accepted as a teaching clinic
  
  A signed agreement between the University of Tromsø and each clinic
  
  The clinics have to establish treatment facilities and ICT-equipment for communication
  
  An employed dental hygienist is required

• A total of 20 public clinics with 2 students in each clinic
Outpatient dental clinics
Logistics - details

- Defined requirements for being a tutor
  
  Identify themselves with the study plan including learning goals
  
  Tutors attending calibration sessions one week per year at the Dental School in Tromsø
  
  Tutors compensated with 30% addition to regular salary

- The clinic is compensated for reduced “productivity”

- A weekly network-based teaching session administered from Tromsø

- Teachers from the Tromsø Dental School visiting each clinic – local media reports
Assessment of the teaching program

The tasks

**Contribute to increase the number of dentists in Norway**
Up to 2013 a total of 170 candidates have graduated from Tromsø

**Specifically meet the need for dentists and specialists in Northern Norway**
Out of the first 100 graduating students (2009-2012), more than 90% have been employed in Northern Norway, most of them in the Public Dental Health Service

Graduate programs in orthodontics, pedodontics and clinical dentistry are established

**Focus on duties and responsibilities in the Public Dental Health Service**

**Apply a decentralized educational model**
Assessment of the outreach teaching program

Exposure to “real life” clinical conditions
Develop clinical skills – patient diversity and volume

Tutors’ evaluation
- Mature and caring in their patient relations
- Reliable regarding anamnestic data collection
- Acceptable concerning manual dexterity

Students’ evaluation
- Early insight in “real life” conditions
- Exposure to a diversity of patients
- Develop clinical dexterity and experience
- Possibility to assist a specialist
<table>
<thead>
<tr>
<th>Procedure</th>
<th>Count (Range)</th>
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</thead>
<tbody>
<tr>
<td>Clinical examinations/consultations</td>
<td>51 (13 – 115)</td>
</tr>
<tr>
<td>Clinical radiographs</td>
<td>115 (35 – 291)</td>
</tr>
<tr>
<td>Fissure sealing</td>
<td>8 (0 – 53)</td>
</tr>
<tr>
<td>Supra/subgingival depuration</td>
<td>31 (8 – 81)</td>
</tr>
<tr>
<td>Anesthesia</td>
<td>91 (45 – 167)</td>
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<tr>
<td>Fillings in total</td>
<td>93 (51 – 165)</td>
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<tr>
<td>Endodontic treatments</td>
<td>3 (0 – 15)</td>
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<tr>
<td>Single crowns</td>
<td>2 (0 – 6)</td>
</tr>
<tr>
<td>Extractions</td>
<td>17 (5 – 35)</td>
</tr>
<tr>
<td>Emergency treatments</td>
<td>8 (1 – 27)</td>
</tr>
</tbody>
</table>

Develop clinical skills – patient diversity and volume
7. Semester 2012 - 2013, 53 students
mean pr student (variation)
Assessment of the dental outreach teaching program

Collaboration with the dental team and other health professions
Positive reports both from students and tutors

Develop knowledge, skills and attitudes with emphasis on Public Dental Health conditions

Tutors’ evaluation
- Create conditions for exposure to public dental health needs
- Emphasis on prevention

Students’ evaluation
- Experience in dental teamwork
- Exposure to local dental outreach activities
Assessment of a dental outreach teaching program

**Emphasis on evidence-based treatment planning**

Tutors’ evaluation
- Creating conditions for an evidence-based approach mediated through weekly contact with the University of Tromsø

Students’ evaluation
- Tutor-supported activity through case discussions and project work
Assessment of the dental outreach teaching program

Advantages for society

Tutors’ evaluation
• Stimulate recruitment to the Public Dental Health Service

• Develop skills with relevance to Public Dental Health needs

• Quality-enhancement of the Public Dental Service through network building

Advantages for the University

University dental staff evaluation
• Valuable feed-back to the Dental School

• Reflective discussions with students and tutors during and after the outpatient period
Assessment of the dental outreach teaching program

7. Semester 2012 – 2013, 53 students

Post-session evaluation

An overall very positive response from both students and tutors, but...

- ICT-sessions should be better coordinated
- Appreciation of the “university network”-effect
- More support from dental assistants
- More patient diversity
- Need for improved living conditions (a few)