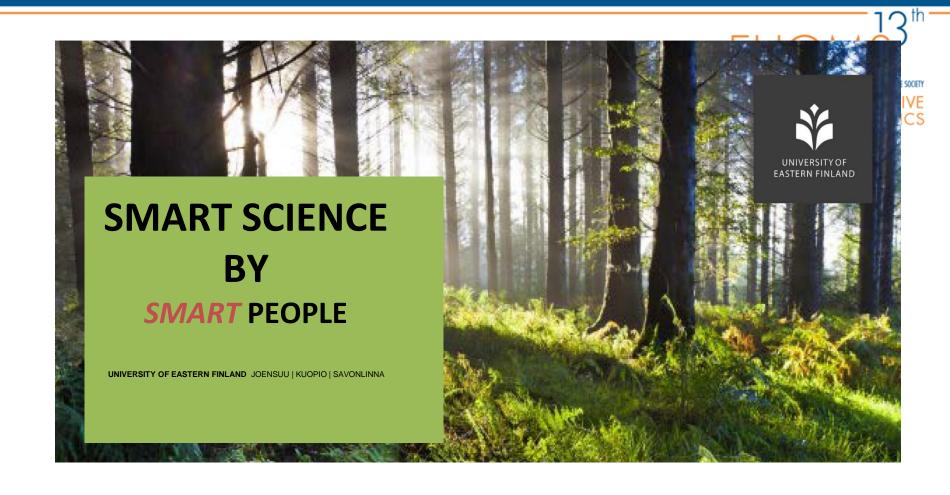


# Oral Pain and Discomfort in Community-Dwelling Older People – a Randomised 2-Year Intervention Study

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I have no potential conflict of interest to report

### Introduction



 Oral pain and discomfort may cause problems in eating, speaking and swallowing.

 The infection-free mouth with no pain or discomfort supports good everyday-life of the old people.

### **Oral Health Intervention Study**



- The study was a part of the larger GeMS-study (Geriatric Multidisciplinary Strategy for the Good Care for the Older people)
- The parent GeMS-study:
  - A multi-component, longitudinal intervention study conducted in the City of Kuopio, Finland, 2004–2007
  - The aims were:
  - to optimize medical treatment, medication and to improve and prevent decline in function and nutrition in community-dwelling old people

### Aim of the current study



 To study, whether oral health promoting interventions improve oral self-care and oral health among community dwelling older people ≥ 75 years.

### **Oral health intervention**



- Oral health intervention included:
  - individually tailored instructions for oral and/or denture hygiene
  - relief of dry mouth symptoms
  - use of fluoride, xylitol, or antimicrobial products
  - professional cleaning
- The dental treatment was also given if needed
- In the control group, participants used dental care services after their own consideration

### Study design



- Parent GeMS-study:
  - Random sample of 1000 persons aged ≥ 75 years in the year
     2003 (born before November the 1st 1927) and living in Kuopio
  - Intervention group n=500
  - Control group n=500
- This Oral Health Intervention Study:
  - The study group was the intervention group of the parent GeMS-study, divided into intervention and control groups.

### **Study population**



- At baseline an interview and a clinical oral examination to community-dwelling participants:
  - N<sub>Total</sub>= 354/500
  - N= 186 in the intervention group
  - N= 168 in the control group
- At the end of the study
  - N<sub>Total</sub> = 279 /500 (55.8%) participants completed the 2-year study
  - N= 145 in the intervention group (N= 68, 46.9% dentate)
  - N= 134 in the control group (N= 80, 59.7% dentate)

### Baseline characteristics of the participants DEVELOPING PREVENTIVE

- Mean age 81.6 years
- Women 75.8 %
- MMSE, high score 25-30, 78.2 %
- IADL, high score 8, 46.7 %
- Dentate 52.3 %, of which 20 teeth or more, 35.7 %
- **Gingivitis 58.1 %**
- Presence of deepened periodontal pockets 58.8 %
- Good oral hygiene (dentate) 33.3 %
- Removable dentures 76.9 %
- Denture stomatitis 20.2 %
- No unstimulated saliva flow 27 %



### Self-reported oral pain and discomfort DEVELOPING ACTIONS IN

|               | Intervention group<br>n=145                | Control group<br>N= 134 |
|---------------|--|-------------------------|
| Baseline      | <b>31</b> % (n=45)                         | <b>22</b> % (n=30)      |
| After 2 years | <b>21</b> % (n=30)                         | 18 % (n=24)             |
|               | Changes were not statistically significant |                         |

## Self-reported main reasons for point and discomfort



|               | Intervention group, problems with  | Control group, problems with   |
|---------------|--|--|
| Baseline      | <ul> <li>removable dentures, n=16</li> <li>teeth/gingiva, n=13</li> <li>mucosa/tongue, n=13</li> </ul> | <ul> <li>removable dentures, n=7</li> <li>teeth/gingiva, n=11</li> <li>mucosa/tongue, n=6</li> </ul> |
| After 2 years | <ul> <li>teeth/gingiva, n= 11</li> <li>removable dentures, n=9</li> <li>mucosa, n=5</li> </ul>         | <ul> <li>teeth/gingiva n=13</li> <li>removable dentures, n= 7</li> </ul>                             |

### **Conclusions**



- The interventions slightly decreased oral pain and discomfort but the changes were not statistically significant.
- Oral problems were common; in every fifth of the participants, despite intensive prevention, oral hygiene counselling and dental treatment.
- It is a big challenge to keep healthy and painless the mouth with heavily restored teeth, gingiva problems, worn-out dentures, thin mucosa and decreased saliva flow rate.

### **Considerations**



- In general, the oral pain and discomfort are likely widely underreported for many reasons, typical to the older people:
  - pain is a natural part of aging also in the mouth (e.g. dry mouth)
  - due to adaptation to the discomfort situation (worn-out dentures on reduced alveolar bases)
  - it may be a challenge to go and get dental treatment
  - the treatment causes costs



### Thank you for your attention!

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