Drinking and smoking: Status quo of interventions by general practitioners


University of Lübeck
University of Greifswald
Research Collaboration on EARly INTerventions for health care behavior (EARLINT)
Declaration of Interest

- Grants from the German Ministry of Health (BMG), the German Ministry of Education and Research (BMBF), the Federal States of Germany, the Association for the Advancement of Rehabilitation Research in Hamburg, Mecklenburg-Vorpommern and Schleswig-Holstein (vffr), the Ministry of Social Affairs, Health, Science and Equality of Schleswig-Holstein

- Trainer in Motivational Interviewing
Background

- Smoking and risky drinking are related to morbidity and mortality
- Widespread implementation would lead to population-level reductions of alcohol- and tobacco-related harm
- Brief interventions for smoking and drinking in general practice (GP) are effective (e.g. Kaner et al, Stead. 2013)
- Very few physicians apply SBI
Appropriateness of physicians’ activities focusing on drinking

- Asking: 3.94 (Screening -), 4.09 (Screening +)
- Giving Information: 3.76 (Screening -), 3.88 (Screening +)
- Counseling: 3.74 (Screening -), 3.91 (Screening +)
Attitudes to screening on alcohol (n=2604)

- **Interesting**: 3.08 (Screening -), 3.22 (Screening +)
- **Difficult**: 1.64 (Screening -), 1.88 (Screening +)
- **Cumbersome**: 1.79 (Screening -), 1.92 (Screening +)
- **Stimulating**: 1.89 (Screening -), 2.28 (Screening +)
Acceptance of SBI in the general population

- More than 90% had positive attitudes towards being asked about their alcohol use (Makela et al. 2011)
Physicians’ barriers to SBI

- Insufficient training in SBI
- Insufficient motivation of patients
- Bad cooperation of patients
- More costs than benefits
- Lack of time

Kranich, Grothues, Rumpf (2006) Sucht 52, 193-199
Number of SBIs in GPs can be increased by training and other activities (e.g. Kaner et al., 1999)

Widespread implementation can be promoted by nation-wide programs (Seppanen et al., 2012; Nilsen et al., 2011)

Number of SBIs is still not satisfying (Heather, 2012)
Seppanen et al., 2011
Swedish General Population

Nilsen et al., 2011

Healthcare visit: 66%
Conversation about alcohol (% of visitors): 20%
Conversation about alcohol (% gen pop): 13%
Economic interventions

- Using new technologies (computer-based, SMS, Mobile Apps)
- Stepped Care Approach
GP sample

- Random selection (N=39)
- 34 participating
- Participation rate 87.2%
Patients sample

- All consecutive patients within 3 weeks each practice
- N = 11,558 consultations
- N = 7,673 patients aged 18-70
- N = 2,016 current smokers
- N = 1,653 participants
- 82% participation rate
Design

consecutive patients

Screening

Randomization

$n=550$

Control group

$n=550$

Expert system intervention

$n=550$

Stage tailored advice by GP

Baseline assessment

Baseline assessment

Baseline assessment

Intervention

Intervention

Intervention

Outcome assessment

Outcome assessment

Outcome assessment

Paper-pencil in the waiting room

By phone after 6, 12, 18, 24 month
Efficacy of brief interventions in general practices

Outcome: 7-day point abstinence

- Expert system, OR=2.1, p<=.001 *
- Practitioner advice OR=1.5, p=.007 *
- Control group Reference category

* GEE model adjusting for clustering within practices and patients

Meyer et al. (2008) *Addiction*
Study design

Random sample of GPs registered in the study region

Randomization

- Advice only
- Expert-system only
- Advice & Expert-system

Implementation

Routine use

Outcome

Initial training
- 1 month

Booster Training

Monthly support calls
- 6 months

- Practice level Intervention activity
- Patient level Abstinence at 12-months follow-up
Adoption participation by study group

Meyer et al. (2012) *Drug & Alcohol Dependence* 121, 124-132
Reach: Number of provided interventions

- Advice: 690
- Expert system: 2195
- Advice & Expert system: 1632
Effectiveness: 12-month follow-up

Outcome: 7-day point abstinence

Lost-to-follow-up mult. imputation
Adjusted for: Clustersampling, Baseline confounder

Expert-system vs. advice
Combination vs. advice
Combination vs. expert-system

Adj. odds ratios
Point estimate 95% conf. int.
Reach * Effectiveness: Number of abstinent patients

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<th></th>
<th>b</th>
<th>%-increase</th>
<th>p</th>
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<tbody>
<tr>
<td>Expert-system vs. advice</td>
<td>1.03</td>
<td>181</td>
<td>.01</td>
</tr>
<tr>
<td>Combination vs. advice</td>
<td>0.96</td>
<td>162</td>
<td>.01</td>
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<tr>
<td>Expert-system vs. combination</td>
<td>0.07</td>
<td>7</td>
<td>.85</td>
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Meyer et al. (2012) *Drug & Alcohol Dependence* 121, 124-132
New technologies

- Smoking cessation in GP using SMS additionally: increased long-term abstinence (Naughton et al., 2014)

- Ongoing study: Integrating addiction treatment into primary care using mobile health technology: protocol for an implementation research study (Quanbeck, 2014)
Design Projekt SIP

Stepped Care
- Intervention 1
- Response check/intervention where necessary
- After 1, 3, and 6 months
- After 12 months
- Post-intervention assessment

Fixed Care
- Intervention 1 to 4 (0, 1, 3, and 6 months)
- Post-intervention assessment

Control group
- Post-intervention assessment
Stepped Care

Intervention 1: Success?
  - No
  - Yes

Intervention 2: Success?
  - No
  - Yes

Intervention 3: Success?
  - No
  - Yes

Intervention 4: Success?
  - No
  - Yes

End of treatment
<table>
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<th>Reduced alcohol consumption (gram/day)</th>
<th>Alcohol Dependence</th>
<th>At-risk drinking/Harmful use</th>
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Bischof et al. (2008) Drug & Alcohol Dependence 93, 244-51
Expenditure of time for the intervention (minutes)
Conclusion

- SBI is effective and could lead to population-level reductions of alcohol- and tobacco-related harm.
- Widespread implementation is necessary.
- Implementation is an extensive challenge and should include early training of medical students.
- Using new technologies is promising.