Patient insight - perioperative smoking and alcohol cessation intervention?

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Abstract

Background The involvement of patient preferences is sometimes forgotten in the evidence-based medicine and the development of clinical guidelines. Many preunderstandings among clinical staff exist on patients’ preferences towards smoking and alcohol cessation programs. The aim of this project was therefore to get insight of the patients’ preferences regarding undertaking smoking and risky alcohol cessation intervention to reduce postoperative complications.

Method Six Scandinavian interview studies on adult surgical patients were identified and the focus of the analyses was on preference and motivation of the patients in relation to cessation programs taking place in the perioperative period.

Results Five intensive programs and one brief program were offered for smoking and alcohol cessation. All participants welcomed being offered the hospital’s support to quit smoking and risky drinking in relation to surgery. Most of them felt especially motivated by the possible health gain following the coming surgery itself.

Conclusion The patients seem to have a high preference for smoking- and alcohol cessation intervention in relation to surgery, especially towards the intensive programs.

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Introduction

Patient preferences are an important part of the evidence-based medicine in addition to the evidence itself and the necessary clinical competences (1). Daily smoking and risk drinking are important risk factors for development of postoperative complications. To date twelve randomised studies have evaluated the effect of perioperative smoking and alcohol cessation intervention (2-13) and more are coming soon (14;15).

In these studies, the inclusion rate varies from 50% to 82% in the different studies, but overall the compliance to the program is relatively good, ranging from 67% to above 90%. However, the successful quit rates in relation to surgery differ with the type of intervention. Thus, the intensive interventions with at least four meetings including patient education, motivational counselling and pharmaceutical support are followed by the highest quit rates of 27% to 90%. Interestingly, the long-term effect is also significantly. (16)

In contrast, successful quitting is more seldom after the shorter programs — about one third to one fifth of the levels obtained in the intensive programs. The shorter programs often contain one or two meetings building on motivational counselling and supported by pharmaceutical. Though, the shorter programs may seem attractive in a surgical setting with a heavy work-load, they are not followed by a significant risk reduction surgery, such as lower complications after surgery (16).

Some of the randomised studies above have nested interviews of the patient expectations, and experiences. The aim of this literature review was therefore to gather insight into the patients’ preferences of participating in smoking and alcohol cessation intervention in the perioperative period.

Methods

Using the following online search strategy Interview* AND (Smoking OR alcohol) AND surgery AND postoperative complication* a total of 157 publications were found; 59 from Pubmed, 87 from Embase and 12 from Cinahl. The manual search from reference lists and infor-
mation from experts revealed two more studies. After excluding 35 duplicates, 108 of the 125 titles and abstracts were considered not relevant for the subject. Furthermore, 8 studies were excluded as 5 did not use an interview design and 3 did not involve the surgical patients. Thus, 9 publications were further evaluated and 7 of those fulfilled the inclusion, but not the exclusion criteria. They were therefore included (17–23). One publication only existed as detailed abstract (23), but the related quantitative study has been published afterwards (24). The 2 excluded full text articles evaluated relevant aspects of perioperative smoking and smoking cessation, but did not perform analyses and interpretation as requested for a qualitative study design (25;26).

Altogether, 6 of the 7 included studies explored the experiences of regarding perioperative lifestyle intervention on short time (Table 1), while the last study focused on the 1-year follow-up (18). All studies were performed as individual or focus group interviews by semi-structured interview guides.

### Results

The studies recruited 92 surgical patients (47 women and 45 men), ranging 28-85 years of age. Across the studies, the participants were positive and found it relevant to be offered the support from their hospital / clinic support to quit smoking and/or risky drinking prior to surgery.

### Intensive interventions

The analyses and interpretation identified important facilitators for successful quitting, such as a competent counsellor, measurements like lung function and CO concentration, free nicotine replacement therapy, the relative long intervention program over 6-8 weeks as well as the smoke-free surroundings at the hospital. The major barriers were lack of support from the staff and psycho-social stress from family and friends to reuptake smoking (17).

At follow-up after 1 year the patients agreed that improved health and money saving were the main reasons for successful quitting smoking. All wanted a longer intervention period than the 6-8 weeks. The facilitators for continuous quitting included low nicotine dependency, being a man and having a non-smoking spouse. Even a year after the operation still several participants

### Table 1 Characteristics of the participants and methods in the six interview studies on patient preference of perioperative smoking and alcohol cessation intervention

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</thead>
<tbody>
<tr>
<td><strong>Lifestyle</strong></td>
<td>Smoking</td>
<td>Smoking</td>
<td>Smoking</td>
<td>Smoking</td>
<td>Alcohol</td>
<td>Smoking</td>
<td>Alcohol</td>
</tr>
<tr>
<td><strong>Period of Intervention</strong></td>
<td>6-8 weeks preop</td>
<td>6-8 weeks preop</td>
<td>Few days preop</td>
<td>4+4 weeks pre+post</td>
<td>6 weeks postop</td>
<td>2 weeks preop + late postop</td>
<td>6 weeks postop</td>
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<tr>
<td><strong>Type of intervention</strong></td>
<td>Intensive program</td>
<td>Intensive program</td>
<td>Brief program</td>
<td>Intensive program</td>
<td>Intensive program</td>
<td>Intensive program</td>
<td>Intensive program</td>
</tr>
<tr>
<td><strong>Relation to intervention</strong></td>
<td>Intervention group: 10 quitters 8 smokers</td>
<td>Intervention group Mixed quitters and smokers</td>
<td>Intervention group: 5 quitters 6 smokers</td>
<td>Control group</td>
<td>Prior to intervention start</td>
<td>Prior to intervention start</td>
<td>Intervention group</td>
</tr>
<tr>
<td><strong>Women</strong></td>
<td>9</td>
<td>Mixed</td>
<td>11</td>
<td>15</td>
<td>5</td>
<td>6</td>
<td>1</td>
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<tr>
<td><strong>Men</strong></td>
<td>9</td>
<td></td>
<td>-</td>
<td>12</td>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td><strong>Age (range of years)</strong></td>
<td>40-77</td>
<td>30-85</td>
<td>40-72</td>
<td>42-66</td>
<td>28-78</td>
<td>(Not given)</td>
<td>43-77</td>
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<tr>
<td><strong>Sampling</strong></td>
<td>Purposive sampling</td>
<td>Representative sampling</td>
<td>Representative sampling</td>
<td>All control patients</td>
<td>Data saturation</td>
<td>Representative sampling</td>
<td>Data saturation</td>
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<tr>
<td><strong>Analyses</strong></td>
<td>Long table-model</td>
<td>(Not given)</td>
<td>Ricoeur’s theory</td>
<td>(Not given)</td>
<td>Applied qualitative framework</td>
<td>Applied qualitative framework</td>
<td>Thematic network</td>
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</table>

The studies recruited 92 surgical patients (47 women and 45 men), ranging 28-85 years of age. Across the studies, the participants were positive and found it relevant to be offered the support from their hospital / clinic support to quit smoking and/or risky drinking prior to surgery.
mentioned the operation, anaesthesia and the risk of post-operative complications as supportive for quitting (18).

Patients undergoing bladder cancer resection together with neo-bladder construction received the intensive smoking and alcohol cessation intervention very well. They did not have an urge to smoke or drink alcohol in the smoke- and alcohol-free surroundings at hospital. This patient group saw smoking and alcohol cessation intervention as an integral part of the surgical treatment. In contrast, after the 6 week program returning to everyday life was a barrier to continue successful quitting of smoking and risky drinking (22).

The large majority of patients in the control group would have preferred to take part in the intensive intervention group, and many expressed that they were disappointed by being in the control group. Most participants agreed to take part in the perioperative smoking cessation study because they wanted receive the intervention (20).

Brief intervention
Only one study analysed the brief intervention program. The majority of women with breast cancer expressed a need for prolonged smoking cessation support instead of the brief intervention, which had only minor effect on quitting smoking in the perioperative period. However, the brief program had triggered their reflection upon smoking, health and addiction, and they experienced it as an opportune aid to escaping the social stigma of being a smoker (19).

Expectations to the intensive programs
The patient group with lung cancer found the programme highly acceptable and attributed emotional, informational, motivational and physical benefits to their participation (23). Also the patient group with ankle fracture saw alcohol intervention in relation to surgery as a good idea. However, they did not consider quit drinking as a major problem during their short hospital stay, because of the alcohol-free surroundings - and had all remained abstinent in this period. The patient opinions reflected their stage of readiness to stop drinking in the perioperative period, their general acceptance of supportive disulfiram as part of an alcohol intervention as well as their awareness of postoperative complications (21).

Discussion
An important result is that the large majority of patients welcomes intensive smoking and alcohol cessati-
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