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Communication Study

Sequence-analysis of video-recorded practitioner–patient communication about smoking in general practice: Do smokers express negative statements about quitting?

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ABSTRACT

Objective: To examine the extent to which smokers express negative statements about quitting and the extent to which these statements influence general practitioners' (GPs') and practice nurses' (PNs') (dis)continuation of guideline-recommended smoking cessation care.
Methods: Fifty-two video-consultations were observed (GP-consultations: 2007–2008; PN-consultations: 2010–2011). Dialogues were transcribed verbatim and professionals' and patients' speech units were coded and analysed using sequential analyses ($n = 1424$ speech units).
Results: GPs focused on asking about smoking (GPs: 42.4% versus PNs: 26.2%, $p = 0.011$) and advising them to quit (GPs: 15.3% versus PNs: 3.5%, $p < 0.001$), whereas PNs focused on assisting them with quitting (GPs: 25.4% versus PNs: 55.2%, $p < 0.001$). Overall, patients expressed more negative statements about quitting than positive statements (negative: 25.3% versus positive: 11.9%, $p < 0.001$), especially when PNs assessed their willingness to quit (OR 3.61, 95% CI 1.44–9.01) or assisted them with quitting (OR 2.23, 95% CI 1.43–3.48).
Practice implications: An alternative approach to smoking cessation care is proposed in which GPs' tasks are limited to asking, advising, and arranging follow-up. This approach seems the least likely to evoke negative statements of patients about quitting during dialogues with GPs and is compatible with the tasks and skills of PNs who could, subsequently, assist smokers with quitting.

1. Introduction

Evidence-based guidelines for smoking cessation care recommend general practitioners (GPs) and practice nurses (PNs) to routinely *ask* patients about smoking, *advise* smokers to quit, *assess* their motivation to quit, *assist* them with quitting, and *arrange* follow-up support [1,2]. A full implementation of these '5 As' significantly improves smoking abstinence rates [3–5] and is cost-effective [6].

Nevertheless, GPs and PNs (see Appendix 1 for a description of PNs' role in Dutch general practice) report various barriers to the implementation of these guidelines during routine consultation [7–12]. Although patients state that they are willing to discuss their smoking behaviour during a practitioner-initiated dialogue [13], GPs and PNs report that smokers regularly express negative statements regarding quitting during unsolicited dialogues about smoking, such as a lack of motivation or discipline to quit [7–12]. These negative statements about quitting impede a structural implementation of guideline-recommended smoking cessation care [7–12]. GPs report a limited range of skills for dealing with these negative statements [8] and consequently tend to avoid these negative statements to preserve a good doctor–patient relationship [14,15]. This factor is one of the reported reasons for the gap in evidence-based practice regarding the provision of

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guideline-recommended smoking cessation care in Dutch general practice. The results show that, for example, 79% of all smokers and 40% of smokers who discuss smoking with their GP do not receive advice regarding quitting smoking [16]. Therefore, we aim to provide more insight into the interaction between primary care professionals and smokers during unsolicited dialogues about smoking. These insights may result in recommendations for primary care professionals for how to address smokers' negative statements regarding quitting and help them to fully implement guideline-recommended smoking cessation care.

Until now, very few studies have examined the interaction between primary care professionals and smokers. Previous studies have focused on the way patients react if GPs link their health issues to their smoking [17] or if they are counselled to quit smoking based on their readiness to quit [18]. According to our knowledge, no studies have examined the responses of smokers if professionals apply a guideline for smoking cessation care. Moreover, the impact of these responses on professionals' continuation of guideline adherence is unknown. More insight into this interaction may contribute to strategies that can benefit the implementation of smoking cessation counselling in general practice.

Therefore, we assessed the extent to which: (i) professionals use the 5 As for smoking cessation care, (ii) patients who smoke express negative or positive statements about quitting if professionals use these 5 As, and (iii) professionals continue or discontinue their use of the 5 As after patients express a positive or negative statement about quitting. Based on the literature, we hypothesised that an unsolicited conversation about smoking would cause negative statements from patients about quitting. Furthermore, we hypothesised that patients' negative statements about quitting would hamper the continuation of guideline adherence, whereas patients' positive statements about quitting would facilitate it. Because knowledge and skills regarding lifestyle counselling are highlighted in the 'competence profile' of PNs [19], we hypothesised that patients' negative statements about quitting would be less likely to hamper guideline adherence in dialogues with PNs compared to dialogues with GPs.

2. Methods

2.1. Study setting, participants and design

A cross-sectional study was conducted in which we examined video-recordings of random real-life routine consultations in general practice. Video-taped consultations are regularly used to observe lifestyle counselling [20–25] and can provide a complete record of what actually happens during consultations and be viewed repeatedly [26]. Videos were collected (nationwide) and archived by the Netherlands Institute for Health Services Research (NIVEL). Consultations with GPs and PNs were recorded during 2007–2008 and during 2010–2011, respectively. Details of data collection are reported elsewhere [27,28].

All video-recordings in which smoking was discussed ($n = 211$) were selected for the present study. We excluded the video-recordings of consultations with non-smokers ($n = 63$), ex-smokers ($n = 70$) and consultations in which the patient specifically requested smoking cessation assistance ($n = 13$) or addressed smoking on their own initiative ($n = 13$). This removal resulted in a set of 52 videos of 33 primary care professionals (17 GPs and 16 PNs). All of the PNs were trained in motivational interviewing during a previous study [28]. This training was not conducted for GPs, and it is unclear whether the participating GPs were trained in motivational interviewing prior to the study. All of the GPs, PNs and patients were unaware of the fact that the recordings and analyses would focus on smoking cessation care.

This study was conducted according to the Dutch legislation on privacy, for which approval of the local medical ethics committees was not required [29].

2.2. Procedure and measurements

After the patients gave their informed consent, consultations were recorded. Two researchers observed the video-recordings. Subsequently, the dialogues between professionals and patients about smoking were transcribed verbatim (MV and EP). A coding scheme was developed for each speech unit of patients and professionals. A speech unit is defined as '*the smallest distinguishable speech segment to which a classification may be assigned*' [30]. The length of a speech unit can vary from a single word to a lengthy sentence.

2.2.1. Professionals' speech units

We coded the speech units of professionals that were related to the core components of the guideline for smoking cessation care (5 As). These included: (1) *Ask* (about the patient's smoking status, the number of cigarettes, or smoking history), (2) *Advise* (the patient to quit smoking or to smoke less), (3) *Assess* (the smoker's motivation to quit), (4) *Assist* (the patient with quitting, which includes discussing the advantages of quitting smoking, risks of smoking, barriers to quitting, support options, pharmacological support, or a quit plan), and (5) *Arrange* (follow-up with support for quitting smoking with the patient, including referring the smoker to behavioural quit support, arrange a telephone follow-up, or ask permission to discuss smoking the next time). Appendix 2 provides an overview of the coding scheme, which is illustrated by examples of the speech units.

2.2.2. Patients' speech units

We coded both negative and positive statements about smoking cessation as expressed by the patients. A negative statement included: (1) barriers to quit, (2) disadvantages of quitting, (3) advantages of smoking, and (4) reasons to relapse. Patients' positive statements included: (1) motivators to quit, (2) advantages of quitting, (3) disadvantages of smoking, and (4) reasons to smoke less or continue abstinence (see Appendix 2 for coding scheme).

2.2.3. Other speech units

The speech units of professionals that we did not code as being related to the 5As and speech units of patients that we did not code as negative or positive statements about quitting were coded as follows: (1) other (non-)smoke-related questions/answers, e.g., "*I smoke 10 cigarettes per day*"; (2) other (non-)smoke-related information, e.g., "*These complaints might result from your smoking*"; (3) other (non-)smoke-related confirmations, e.g., "*Yes, I agree*"; and (4) other (non-) smoke-related speech units, e.g., "*Thank you*". In contrast to the '5A-related' speech units, 'other smoke-related' speech units of professionals included general statements about smoking and its risks and were unrelated to quitting or the patient's motivation to quit (see Appendix 2 for coding scheme).

2.2.4. Inter-rater agreement

Two researchers (MV and MC) independently coded five randomly selected dialogues (a total of 153 speech units) that resulted in moderate inter-rater agreement (kappa 0.66). During this pre-test of our coding scheme, we encountered two coding difficulties. First, some disagreements occurred regarding differentiating between the speech units of professionals related to '*Assisting* a quit attempt' and to 'providing smoke-related information'. These disagreements were resolved by a third person