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When patients take the initiative to audio-record a clinical consultation

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HIGHLIGHTS

Current developments encourage patients to audio-record the clinical consultation.

These developments go with many concerns among professionals.

Despite these concerns, many professionals seem to embrace the audio-recordings.

A minority prohibits their patients to record the consultation.

ABSTRACT

Objective

to get insight into healthcare professionals' current experience with, and views on consultation audio-recordings made on patients' initiative.

Method

215 Dutch healthcare professionals (123 physicians and 92 nurses) working in oncology care completed a survey inquiring their experiences and views.

Results

71% of the respondents had experience with the consultation audio-recordings. Healthcare professionals who are in favour of the use of audio-recordings seem to embrace the evidence-based benefits for patients of listening back to a consultation again, and mention the positive influence on their patients. Opposing arguments relate to the belief that is confusing for patients or that it increases the chance that information is misinterpreted. Also the lack of control they have over the recording (fear for misuse), uncertainty about the medico-legal status, inhibiting influence on the communication process and feeling of distrust was mentioned. For almost one quarter of respondents these arguments and concerns were reason enough not to cooperate at all (9%), to cooperate only in certain cases (4%) or led to doubts about cooperation (9%).

Practice implications

the many concerns that exist among healthcare professionals need to be tackled in order to increase transparency, as audio-recordings are expected to be used increasingly.

1. INTRODUCTION

While healthcare professionals (HCPs) are responsible for facilitating the consultation process, patients are increasingly expected to be informed participants and to be able to make conscious decisions [1]. Clearly, the complex nature of medical encounters and the often vulnerable and emotional position of patients make this role challenging for them, which is evident in oncology care [2]; [3] ; [4]. In 2007, Epstein and Street stressed the need to support patients in the communication process [5]. Giving patients an audio-recording of the consultation to replay, has proven to be an effective approach in this context. Studies in the oncology setting reveal that patients highly value audio-recordings, the majority benefit from listening to the recordings, and they provide support in achieving effective medical communication [6]; [7]; [8]; [9] ; [10]. Moreover, it improves information recall [11]; [12] ; [13], gives a clearer understanding of treatment options [14] ; [15] and induces more active engagement in treatment decisions [15] ; [16].

Despite these benefits, routinely providing audio-recordings to patients has not yet become common practice in oncology clinics [6] ; [8]. Practical issues like funding and logistics, as well as HCPs' antagonistic views seem to impede implementation [17] ; [18]. These views relate for example to the perceived intrusive nature of recordings, perceived 'risks' (medico-legally), the belief that patients do not benefit from listing back to a consultation or the belief that it is confusing for patients. However, current developments have led to a resurgence in the use of audio-recordings in clinical practice, but from a different perspective. Whereas previously the HCP facilitated and provided the recording, now patients take the initiative. Smartphones and tablets enable patients to make audio-recordings in an easy and accessible way and in the Netherlands, patient associations have started to encourage patients to record their clinical consultations. Online discussions between HCPs reveal that (also in other countries) HCPs are confronted with these developments in clinical practice [19]; [20] ; [21].

From an organisational perspective, the administrative support, logistics, and financial resources may be simplified when patients take the initiative to record the clinical consultation, rather than HCPs. It may be far easier to obtain audio-recordings across medical specialties (in the case of severe or chronic conditions) when the patient is in control. This approach also fits with the increased focus on patient engagement and transparency in healthcare. However, the use of consultation audio-recordings made on the initiative of patients, will only be feasible when both parties (HCPs and patients) endorse this new approach. But what are the opinions of HCPs on being recorded on patients' request?

Recent articles about patient initiated recordings share personal experiences, opinions and case studies that mainly describe the covert recording of clinical

encounters [19]; [20] ; [21]. To follow the developments in the use of open (rather than covert) consultation audio-recordings and to find out how they can advance patient-professional communication in oncology care, we set up an explorative study. The study was guided by the following questions:

1. What are the current experiences with consultation audio-recordings of Dutch HCPs in oncology care?
2. What are the perceived risks and perceived influence of recording a consultation?
3. What are the views and perspectives that may influence the use of the audio-recordings made on patients' request?

2. METHOD

2.1. Participants and design

An online survey was set up, based on previous research related to consultation audio-recordings [17]. Dutch hospitals and associations for HCPs in oncology care were asked to circulate the questionnaire link to their employees or members; i.e. physicians, nurse practitioners and nurses. In addition, social media (Twitter and LinkedIn) were used to publicize the survey. The questionnaire was available online from April to June 2015 and started with screening questions (gender, age, occupation, work experience in years, peripheral/academic hospital, experience with EPD/audio-recordings). Respondents were excluded from analyses if they did not work as a physician or nurse (practitioner) in a hospital ($N = 45$), or when they had not completed any of the questions in the second part of the questionnaire ($N = 8$).

2.2. Questionnaire

Participants' background characteristics and experiences with audio-recordings were covered in the first questions (see Table 1). HCPs may have acquired experience with consultation audio-recordings because their hospital facilitates recording, or because patients (ask for permission to) record the consultation. A distinction in questions was made between these situations because respondents who have experience with hospital-initiated recordings, may have had additional information that influenced their views. Also, their patients may not have felt the need to make a recording themselves, as it was provided for them. The respondents without the experience of audio-recordings facilitated by the hospital were questioned about their experience with audio-recordings initiated by patients. The second part of the questionnaire was tailored to this stated experience. The questions in the second part (see Figs. 1–4) concerned the influence of audio-recordings on the patient-provider interaction and perceived risks, based on experience or expectations. Respondents with no audio-recording experience were only asked about perceived risks. A 5-point Likert scale was used to categorise the respondents' views and experience or expectations. After each question, the respondents were encouraged to elaborate on the answer given to clarify their views. At the end of the questionnaire there was room for additional comments.

2.3. Data analysis

Descriptive statistics were used to identify the respondents' experiences and views. Linear regressions were conducted, with the HCP's age, gender, type of hospital (university/non-university), profession (physician/nurse), work experience in years, and experience with consultations being recorded (none/via the hospital/via patients) as predictor variables. STATA 13.0 was used to conduct these analyses. The analysis of the open-ended questions aimed at obtaining insight into the respondent views. Two researchers started the open coding process (initial codes given to fragments of text). The initial codes were categorised in broader themes. With these themes, one researcher coded all fragments explaining issues that may impede or facilitate the use of consultation audio-recordings. Unclear fragments were discussed with the second researcher. We then classified fragments that explained the perceived impact of using consultation audio-recordings on the patient, the HCP and the patient-professional relationship. Since we did not find any new themes related to the research question in the last coded questionnaires, data saturation appeared to be reached. These analyses were conducted using MAXQDA 11.

3. RESULTS

3.1. Sample characteristics and experience

The respondents consisted of 215 HCPs in oncology care: 123 physicians and 92 nurse and nurse practitioners. Nurse and nurse practitioners were combined into a single group during analysis. A minority of the respondents had experience with consultation audio-recordings facilitated by their hospital ($N = 37$, 17%). The others ($N = 178$, 83%) were questioned about their experience with audio-recordings initiated by patients. Two-thirds of this group ($N = 116$) had been confronted at least once by a patient who wanted to record the consultation, and the vast majority ($N = 96$, 83%) had given permission for the recording (Table 1).

3.2. Perceived risks and influence on the consultation process

In Fig. 1, Fig. 2, Fig. 3 ; Fig. 4 results of the inquired risk perception and experienced influence of consultation audio-recordings on the consultation process are visualised. All respondents were asked to say whether they agreed with the statement 'I think there are risks related to the recording of consultations'. Their risk perception was divided, as 34% agreed (strongly) and 36% disagreed (strongly). The 153 respondents who were familiar with the use of consultation audio-recordings (initiated either by the hospital or by the patient) were asked if they had found the recordings to have any influence on the consultation process. This question was answered by 141 participants, and a minority of 14% experienced the recording as (very) inconvenient, 52% said that it was not inconvenient (at all). In addition, 34% indicated that they communicated more carefully with the patient, knowing that the consultation was being recorded, 38% felt not influenced by the recording. The analysis of the relations with, sociodemographics showed physicians tended to be more concerned about the risks than nurses ($B = -0.51$, $p = 0.009$, $M = 3.2$ vs 2.8). A significantly greater proportion of male HCPs indicated that they experienced the recording as not inconvenient compared with female HCPs, who were more ambivalent ($B = 0.39$, $p = 0.036$, $M = 3.8$ vs 3.5). Female HCPs were more likely to communicate more carefully when being recorded compared with male HCPs

($B = 0.42$, $p = 0.037$, $M = 3.0$ vs 2.7); younger HCPs were more likely to communicate more carefully than older HCPs ($B = -0.41$, $p = 0.021$); and physicians were more likely to communicate more carefully than nurses ($B = -0.47$, $p = 0.039$, $M = 3.0$ vs 2.8). We did not find any differences in answers between the group that had experience via hospital-initiated recording and the other respondents.

3.3. Prevailing views and perspectives

A total of 470 quotes were analysed to get an understanding of the HCPs' views and perspectives on consultation audio-recordings. Five themes were identified that may influence the use of consultation audio-recordings at the initiative of patients.

3.3.1. Perception on effectiveness of the consultation audio-recordings

There was no consensus about in the perceived effectiveness of the recordings. On the one hand respondents explained the perceived assets for patients in terms of (a) increased understanding, (b) increased recall of information, and (c) the opportunity to share information with relatives. Also, the patient's 'right' to have a recording was frequently mentioned.

Physician: "The patient is better informed by listening back or letting others hear what has been discussed".

Nurse: "I think it is the patient's right. It is well known that people don't remember everything you tell them or explain, so it should be possible to have something you can listen back to when you are at home."

On the other hand, respondents expressed their skepticism about the benefits, and the perception that listening back to a recording is confusing for patients due to the lack of context and absence of non-verbal communication.

Physician: "I do not think it is valuable to record something, either for the understanding or for the fine details."

Nurse: "Patients may stick too firmly to the recording and interpret it wrongly".

3.3.2. (Lack of) control over the recording

Many antagonistic attitudes were related to the lack of control HCPs felt to have over the recording and the related fear of misuse (e.g. through social media). In this context the privacy of the HCP was also mentioned.

Physician: "Unclear what will happen with this recording. Issues can get out of context or used in fragments."

Physician: "In a strange way, it feels like it infringes my own privacy. You have no idea where your conversations end up".

Nurse: "Also take the privacy of the HCP into account. That is not getting any attention at all."

3.3.3. Uncertainty about medico-legal status

In relation to the aforementioned topic, uncertainty about the legal status of the audio-recordings was expressed several times.

Physician: "I think the recordings can be useful, but then we must have clear medicolegal regulations. This needs to be taking care of before starting to record consultations.

Physician: "I would not want the literal things I said to used against me in a legal dispute. If I know that I'm covered against that, I would have no objections against recording all conversations".

3.3.4. Perceived influence on the communication style of the HCP

The quotes clarifying the perceived influence of audio-recordings on communication styles varied. On the one hand, quotes indicated that audio-recordings do not lead to a change in the communication style and even that they should not be a reason to change, i.e. it is wrong to change what you say.

Nurse: "It should not make any difference if you are being recorded. You have the obligation to inform patients adequately."

On the other hand, respondents reported that they (would) choose their words more carefully. The reasons given for changing their communication style included the aforementioned fear of misuse, the fear of legal consequences, and feeling pressured.

Physician: "It may stop me expressing my opinion freely a little bit, also because of liability issues."

Physician: "The doctor is less spontaneous and more constrained in their communication, the doctor will cover themselves, explaining more side effects than strictly necessary; defensive medicine, a suspicious atmosphere."

Other, more positive explanations given concerned the perceived awareness that patients and relatives need to understand the recording in and of itself.

Nurse: "I'm more aware that patients listen back at home to what is being said. I try to be as clear as possible, but I'm not more careful the information I give is the same as when there is no recording."

3.3.5. Trust

Respondents expressed their feeling of distrust that may inhibit the doctor-patient relationship.

Physician: it feels like distrust, being caught on your words.

Physician: "patients who want this are more wary and critical towards their HCP."

Related to trust, many respondents indicated that they do give permission to a patient, on the condition that the patient agrees to private use only.

Physician: "I do ask the patient not to circulate this information on social media. For personal use only."

Nurse: "As long as there are concrete agreements being made about providing third parties with this information."

4. DISCUSSION

4.1. Summary of findings

In this explorative study, 215 HCPs in oncology care shared their experiences with consultation audio-recordings and their views on the use and implementation of audio-recordings. The number of reactions to the questionnaire and the detailed, sometimes strongly worded answers demonstrate that consultation audio-recordings are a topical issue. The majority of the respondents did have experience with consultation audio-recordings. Despite existing concerns, most respondents (would) cooperate with patient initiated recordings.

Respondents in favour of the audio-recordings seemed to embrace the evidence-based benefits for patients and mentioned the positive influences on their patients. Views that were antagonistic to audio-recordings included (i) scepticism about the benefits and the belief that patients may be confused or misinterpret information when listening back, (ii) the perceived lack of control once patients had a recording (risk of misuse), (iii) the unclear legal status and (iv) the influence on their communication style and (v) the feeling of distrust that may inhibit the doctor–patient relationship. For a number of respondents, these arguments were reason enough not to cooperate at all. The percentage of physicians opposed to the use of audio-recordings and their motivations are comparable to previous studies [17]; [18]; [22]; [23]; [24]. It is remarkable that despite the attention for consultation audio-recordings the past few years, most concerns resemble the concerns reported in these older studies, who were mainly focused on institution-initiated recordings. In addition the fear of misuse (often reported in relation with social media) is more prevalent in the current study. With the rise of popularity of social media from the time of those studies, this finding seems evident.

4.2. Practice implications and future research

Audio-recordings are expected to be used increasingly by patients [20]. Accepting this trend as a new way of using consultation audio-recordings seems feasible from the perspective of the majority of participants in the current survey, but the existing concerns need to be tackled to increase transparency. Moreover, the high response number of ‘ambivalent’ (Fig. 1, Fig. 2, Fig. 3; Fig. 4) may indicate that there is a considerable group of respondents that has not yet formulated a clear opinion on certain issues related to the consultation audio-recordings, or they see both advantages and disadvantages. Future research may include in-depth interviews to learn more about the doubts and uncertainties HCPs have with regard to the (impact of) recordings.

Drawing on the fundamental implementation components that Hack et al. proposed when providing consultation audio-recordings to patients [25], some of the existing concerns may be eliminated by (a) providing information about the existing evidence-based benefits of listening back to consultation audio-recordings, and (b) clarifying medico-legal regulations.¹ Future research should clarify if HCPs feel less

constrained when they are better informed about the potential benefits and legal status of the recording.

Discussion between HCPs about the conditions under which permission for recording is given may increase transparency and reduce the feeling of inhibition. Increasing transparency may even take this approach a step further; convincing HCPs to encourage patients to record the consultation. It is not likely that patients will initiate the recording in the first oncology consultation in particular, when patients are not yet familiar with this type of encounter and do not know what to expect. To inform HCPs, further research should clarify the frequency and consequences of misuse and the influence on the patient-provider interaction in practice. Transparency about these topics may support patients to take the initiative to make a consultation audio-recording.

4.3. Limitations

Our method of recruitment limits the representative of the current explorative study by the absence of information about non-respondents and information on the diversity in institutions respondents worked in. HCPs willing to express their views in the current study may have stronger opinions compared with the population at large. Our method however, led to absence of more detailed background characteristics (e.g. time spent on direct patient care) and we could not ask more in-depth questions based on answers given on previous questions. We also did not measure how much experience the HCPs had with patient-recordings; the variable was either yes or no. HCPs with more experience may have different attitudes compared to those with less. In the present study only HCPs in oncology care were asked to complete the questionnaire. Previous research shows that oncologists tend to be more in favor of consultation audio-recordings compared with surgeons and family doctors [18] ; [22]. HCPs in other settings where less critical or complex information is shared, may have different views and experiences.

5. CONCLUSION

Overall, Dutch HCPs in oncology care seem to support patient initiated consultation audio-recordings but many concerns exist and need to be tackled. While the majority cooperates when their patient asks to record the consultation, the concerns are for a number of respondents reason enough not to cooperate.

Author contributions

All authors contributed to the design of the study. IB and BL conducted the data processing. IB analysed the data and wrote the first manuscript in concept. All authors reviewed and contributed to writing the final manuscript

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Conflict of interest

None.

Ethics

The study does not fall within the remit of the Medical Research Involving Human Subjects Act (WMO). We complied with Dutch research ethics in performing the study that we described.

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REFERENCES

- [1] R.M. Epstein, et al., Measuring patient-centered communication in patient-physician consultations: theoretical and practical issues, *Soc. Sci. Med.* 61 (7) (2005) 1516–1528.
- [2] F.K. Barg, et al., Unmet psychosocial needs of Pennsylvanians with cancer: 1986–2005, *Cancer* 110 (3) (2007) 631–639.
- [3] T.F. Hack, L.F. Degner, P.A. Parker, The communication goals and needs of cancer patients: a review, *Psychooncology* 14 (10) (2005) 831–845.
- [4] S. Chaitchik, et al., Doctor–patient communication in a cancer ward, *J. Cancer Educ.* 7 (1) (1992) 41–54.
- [5] R. Epstein, R. Street, *Patient-Centered Communication in Cancer Care: Promoting Healing and Reducing Suffering*, NIH Publication, Bethesda, MD, 2007.
- [6] M. Tsulukidze, et al., Providing recording of clinical consultation to patients – a highly valued but underutilized intervention: a scoping review, *Patient Educ. Couns.* 95 (3) (2014) 297–304.
- [7] N. Van der Meulen, et al., Interventions to improve recall of medical information in cancer patients: a systematic review of the literature, *Psychooncology* 17 (9) (2008) 857–868.
- [8] M.H. Tattersall, P.N. Butow, Consultation audio tapes: an underused cancer patient information aid and clinical research tool, *Lancet Oncol.* 3 (7) (2002) 431–437.
- [9] M. Pitkethly, S. Macgillivray, R. Ryan, Recordings or summaries of consultations for people with cancer, *Cochrane Database Syst. Rev.* (3) (2008) CD001539.
- [10] S.E. McClement, T.F. Hack, Audio-taping the oncology treatment consultation: a literature review, *Patient Educ. Couns.* 36 (3) (1999) 229–238.
- [11] L.M. Ong, et al., Effect of providing cancer patients with the audiotaped initial consultation on satisfaction, recall, and quality of life: a randomized, double-blind study, *J. Clin. Oncol.* 18 (16) (2000) 3052–3060.
- [12] M.R. Stephens, et al., Prospective randomised clinical trial of providing patients with audiotape recordings of their oesophagogastric cancer consultations, *Patient Educ. Couns.* 72 (2) (2008) 218–222.
- [13] P.W. Watson, B. McKinstry, A systematic review of interventions to improve recall of medical advice in healthcare consultations, *J. R. Soc. Med.* 102 (6) (2009) 235–243.
- [14] I.A. Johnson, D.J. Adelstein, The use of recorded interviews to enhance physician-patient communication, *J. Cancer Educ.* 6 (2) (1991) 99–102.
- [15] S. Ford, et al., The influence of audiotapes on patient participation in the cancer consultation, *Eur. J. Cancer* 31A (13-14) (1995) 2264–2269.
- [16] B.J. Davison, L.F. Degner, Empowerment of men newly diagnosed with prostate cancer, *Cancer Nurs.* 20 (3) (1997) 187–196.
- [17] M. Stockler, P.N. Butow, M.H. Tattersall, The take-home message: doctors' views on letters and tapes after a cancer consultation, *Ann. Oncol.* 4 (7) (1993) 549–552.
- [18] D. McConnell, P.N. Butow, M.H. Tattersall, Audiotapes and letters to patients: the practice and views of oncologists, surgeons and general practitioners, *Br. J. Cancer* 79 (11–12) (1999) 1782–1788.
- [19] G. Elwyn, L. Buckman, Should doctors encourage patients to record consultations? *Br. Med. J.* 350 (2015) g7645.
- [20] M. Tsulukidze, et al., Patients covertly recording clinical encounters: threat or opportunity? A qualitative analysis of online texts, *PLoS ONE* 10 (5) (2015) e0125824.
- [21] G. Elwyn, Patientgate™ digital recordings change everything, *Br. Med. J.* 348 (2014) 2078.
- [22] H. C, Taped consultations in a thoracic oncology lung cancer service, *Cancer Nurs. Pract.* 4 (3) (2005) 35–38.

- [23] O.B. Eden, I. Black, A.E. Emery, The use of taped parental interviews to improve communication with childhood cancer families, *Pediatr. Hematol. Oncol.* 10 (2) (1993) 157–162.
- [24] C. Liddell, et al., Giving patients an audiotape of their GP consultation: a randomised controlled trial, *Br. J. Gen. Pract.* 54 (506) (2004) 667–672.
- [25] T.F. Hack, et al., Promoting consultation recording practice in oncology: identification of critical implementation factors and determination of patient benefit, *Psychooncology* 22 (6) (2013) 1273–1282.

TABLES AND FIGURES

Table 1. Respondents' characteristics and experience.

Background characteristics		All <i>N</i> = 215	Physicians <i>N</i> = 123	Nurses <i>N</i> = 92
Age (5 missing)		mean (sd)	46.1 (9.8)	46.7 (9.6) 45.2 (10.0)
Work experience in years		mean (sd)	18.0 (10.0)	16.6 (9.5) 20.0 (10.3)
Gender	Male	<i>N</i> (%)	73 (34)	63 (51) 10 (11)
Type of hospital	University	<i>N</i> (%)	101 (47)	74 (60) 27 (29)
	Non-university		114 (53)	49 (40) 65 (71)
Experience – facilitated by the hospital				
My hospital facilitates consultation audio-recordings (sometimes) and provides them to patients. (<i>N</i> = 215)	Yes	<i>N</i> (%)	37 (17)	28 (23) 9 (10)
	No		178 (83)	95 (77) 83 (90)
Experience – initiated by patients				
I have experience with patients who ask if they can make a recording. (<i>N</i> = 178)	Yes	<i>N</i> (%)	116 (65)	77 (81) 39 (47)
	No		62 (35)	18 (19) 44 (53)
I give permission when a patient wants to make a recording. (<i>N</i> = 116) ^a	Yes	<i>N</i> (%)	96 (83)	60 (78) 36 (92)
	Sometimes		8 (7)	8 (10) 0
	No		12 (9)	9 (12) 3 (8)
I would give permission if a patient wanted to make a recording. (<i>N</i> = 62) ^b	Yes	<i>N</i> (%)	38 (65)	10 (59) 28 (68)
	Perhaps		16 (27)	5 (29) 11 (27)

Background characteristics		All N = 215		Physicians N = 123	Nurses N = 92
	No		4 (7)	2 (12)	2 (5)

^a This question was only posed to respondents who had experience with patient-initiated consultation audio-recordings, see Section 2.2.

^b This question was only posed to respondents who had no experience with consultation audio-recordings, see Section 2.2.

I think there are risks related to the recording of consultations (N=196)

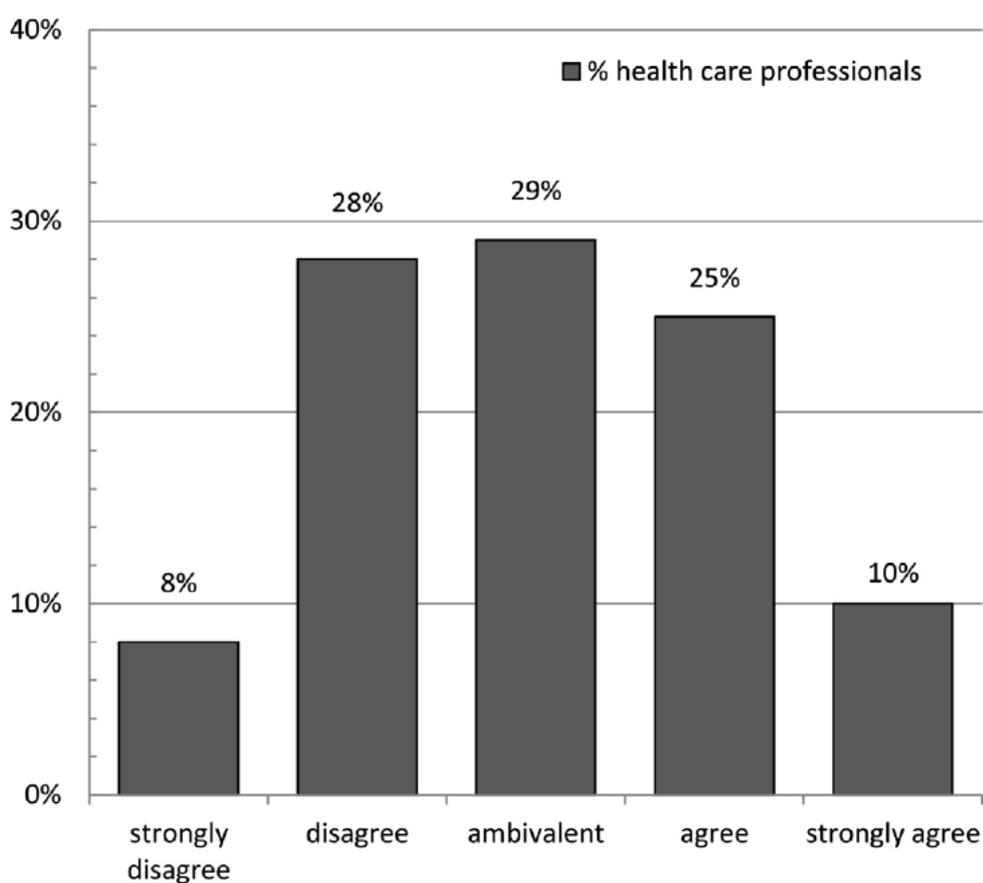


Fig. 1. Perceived risks of consultation audio-recordings.

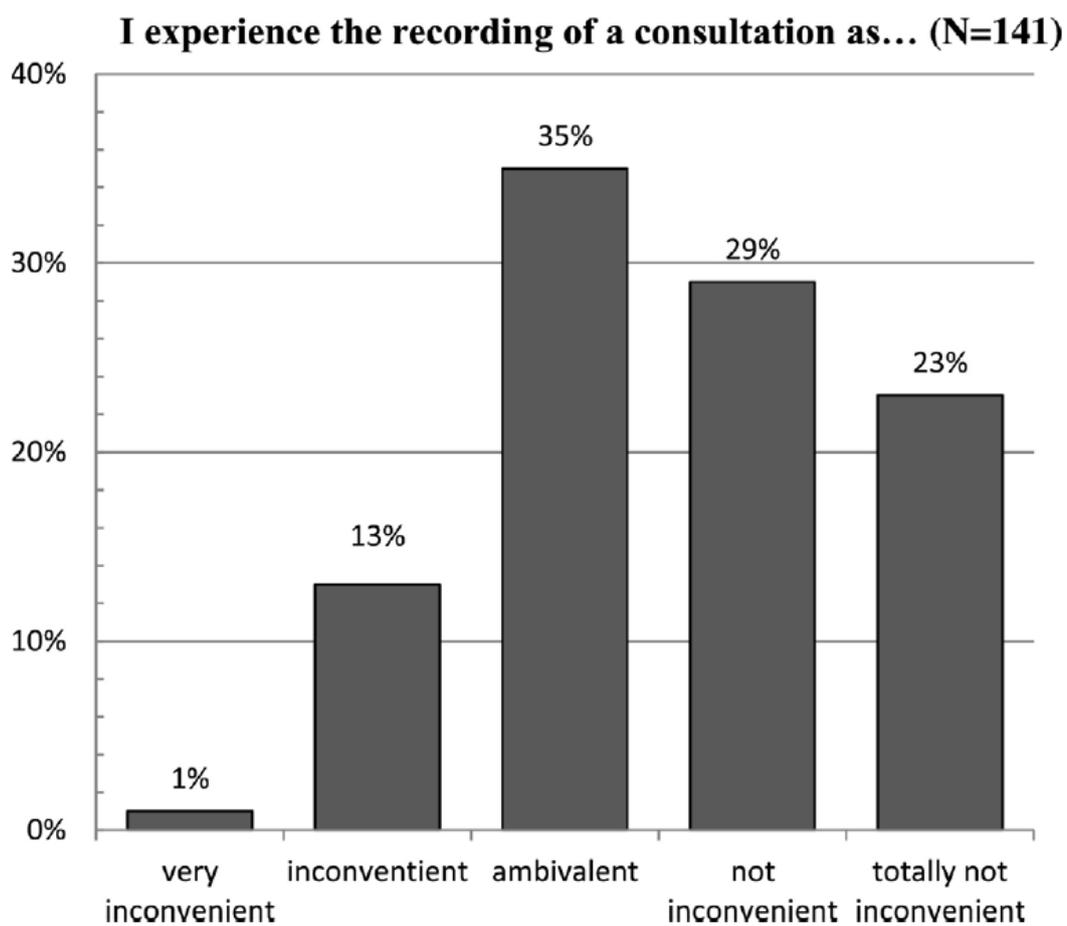


Fig. 2. Perceived influence of the consultation audio-recordings.

I communicate more carefully with the patient if I know that the consultation is being recorded (N=141)

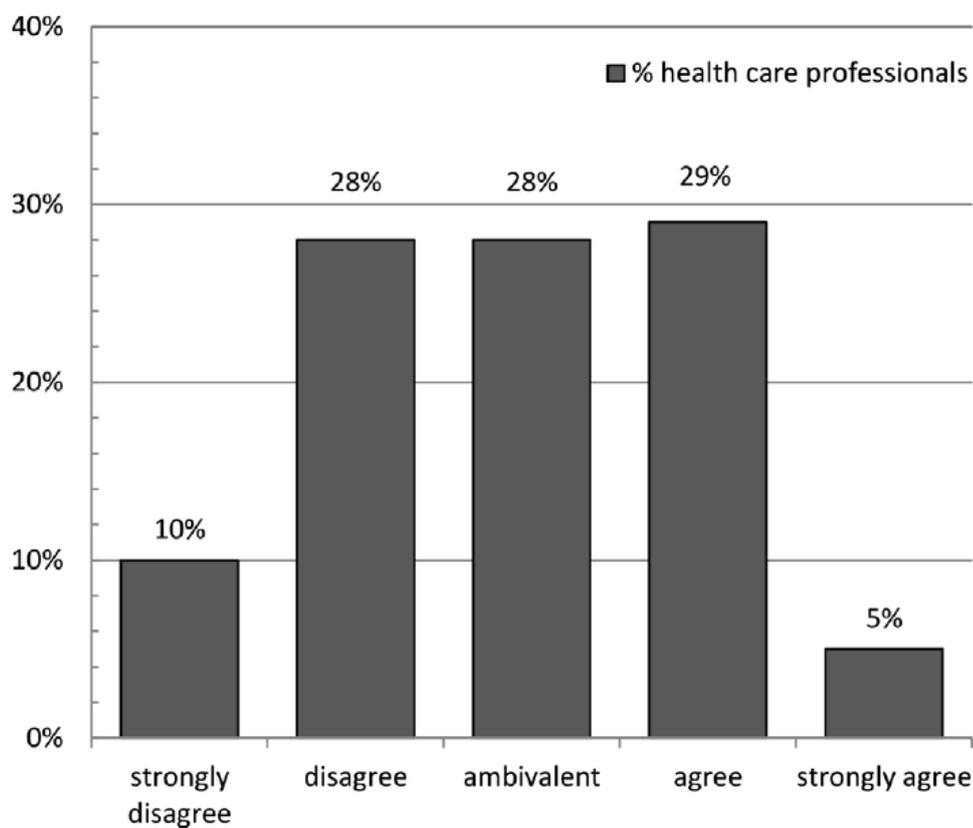


Fig. 3. Perceived influence of the consultation audio-recordings on one's communication behaviour.

In my experience, the communication in follow-up consultations improve when patients have the opportunity to listen back to a consultation audio-recording of the previous consultation (N=139)

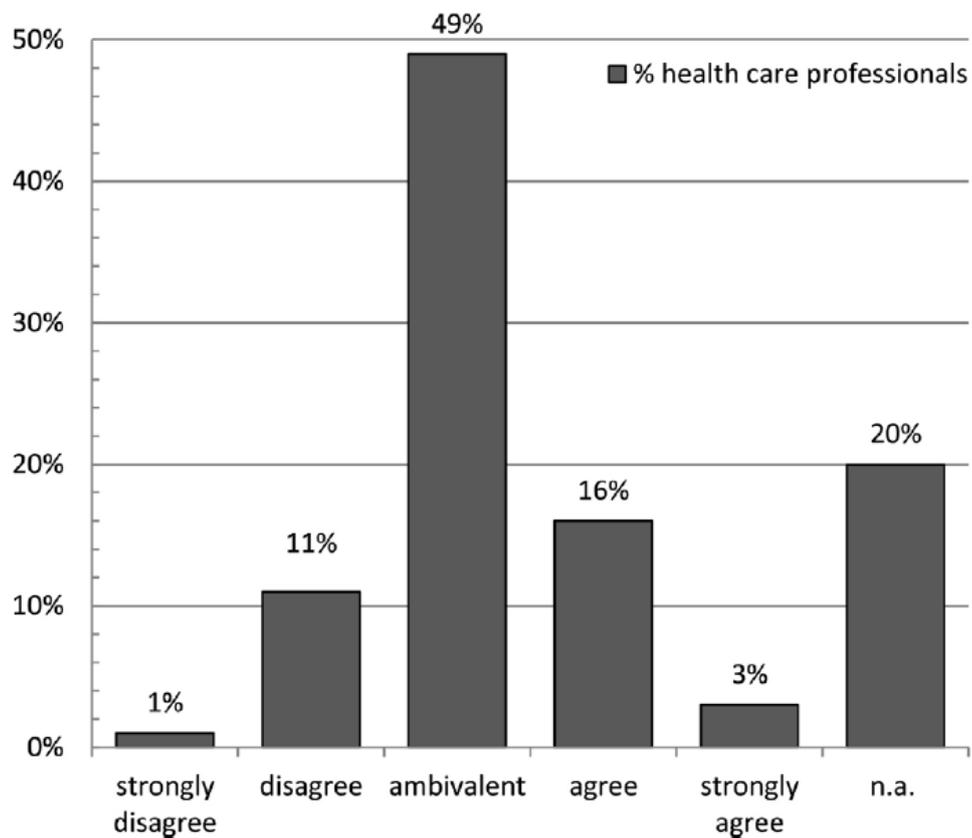


Fig. 4. Perceived influence of listening back to consultation audio-recordings.