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Date:
2016-10-01

Citation:
Lipson-Smith, R., Hyatt, A., Butow, P., Hack, T. F., Jefford, M., Hale, S., Hocking, A., Sirianni, M., Ozolins, U., Yiu, D. & Schofield, P. (2016). Are audio recordings the answer? — a pilot study of a communication intervention for non-English speaking patients with cancer. Psycho Oncology, 25 (10), pp.1237-1240. https://doi.org/10.1002/pon.4193.

Persistent Link:
https://hdl.handle.net/11343/291940

Are audio-recordings the answer? - A pilot study of a communication intervention for non-English speaking cancer patients.

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Key words:
Oncology; Migrants; CALD; Communication; Consultation audio-recordings

To be involved in decision-making and provide consent to treatment, patients must recall information communicated by their oncologist. Communicating medical information is challenging particularly when language barriers exist. Non-English speaking migrant cancer patients report difficulties in communicating with the medical team and navigating the healthcare system [1]; communication and recall aids are therefore especially important for these patients.

Effective interventions exist to improve health literacy, information recall and understanding among English-speaking patients. Audio-recording medical consultations increases patients' recall and understanding [2], as does provision of cancer information sheets [3]. Question prompt lists (QPL) increase patient question asking; and doctors provide more information when asked questions [4]. These interventions have not previously been tested in a migrant cohort.

Our Phase I study combined these interventions for Arabic, Cantonese, Greek, and Mandarin-speaking migrant cancer patients to improve patient question-asking, understanding and information recall of consultations. This pilot study aimed to develop this intervention, assess its cultural acceptability, and determine implementation feasibility prior to a multi-site Phase II study.

Methods

The pilot study, adhering to best practice recommendations [5], was conducted at a cancer hospital in Australia following ethics committee approval. Participant feedback was iteratively incorporated into the intervention and study design.

Intervention development

The intervention comprised provision of cancer information sheets, a QPL and an audio-recording of an oncology consultation.

Written materials were translated by accredited translators using the European Organisation for Research and Treatment of Cancer forward-back translation protocol [6].

Materials were reviewed by a multidisciplinary panel comprising experts in behavioural science, psychology, oncology, interpreting/translation, social work and medical-consumer representation.

Cancer information sheets

The cancer information sheets (CIS) comprised nine sheets published and translated by Cancer Council Australia covering diagnosis, treatment, complimentary therapies, side effects, and lifestyle.

Question prompt list

The QPL was adapted from those developed for Australian English-speaking cancer patients [7] using transcripts from migrant focus groups to identify themes and migrant-specific information needs, as described in [8]. Migrant-specific questions were developed by the multidisciplinary panel and added to the QPL.

Consultation audio-recording

One consultation per patient was audio-recorded. The consultation type and length was documented.

Participants

Eligibility criteria included: aged ≥18 years; Arabic, Cantonese, Greek, or Mandarin professional interpreter requested; consultation with an oncologist. See exclusion criteria in Figure 1. Participants were recruited between June 2014 and February 2015.

Intervention implementation

All hospital interpreter requests were screened to identify potential participants. Eligibility was confirmed via medical records and clinician consultation.

Eligible patients were posted study information in their language and approached via telephone by a bilingual research assistant (RA). All bilingual RAs were fluent in English and Arabic, Cantonese, Greek, or Mandarin. Written consent was obtained prior to consultation audio-recording. The attending interpreter, clinician, and family were asked for their consent; see Figure 1. If they declined, the audio-recording was delayed until another suitable consultation.

The first 10 participants received the intervention to assess cultural sensitivity. Their feedback iteratively refined the intervention. Subsequently, 13 participants were randomised (stratified by language and sex) to intervention or control to assess acceptability of study procedures; see Figure 1.

Participants who received the intervention (10 initial, 7 randomised to intervention) were given the QPL and CIS. The 10 initial participants were given all documents in the waiting room prior to their consultation; however, participants struggled with processing this much information at once. The CIS were given post-consultation to all subsequent participants. Participants were encouraged to read the QPL, and ask their oncologist as many questions as they wished. Control participants were given one general cancer information sheet. Consultations were audio-recorded using a dictaphone. Intervention participants were given audio-recordings immediately post-consultation on USB or CD. All participants completed a telephone semi-structured interview (SSI) with a bilingual RA two weeks post-consultation. Control participants received their audio-recording post study-exit.

The SSI collected qualitative and quantitative feedback on the intervention, and study procedures. Questions included: “Did you find the information resources culturally appropriate and sensitive?” and “Do you think the QPL contained the sort of questions you would like to ask?” Informal patient feedback to research staff was also documented.

Data Analysis

SSI data from non-randomised participants and intervention participants were consolidated. SSI transcripts were analysed using content analysis [9]. Demographic and clinical variables and intervention-use are reported using descriptive statistics.

Results

Twenty-three patients were recruited (10 non-randomised, 13 randomised); see Table 1 for descriptive statistics. Overall, 43% of approached eligible patients consented (Arabic 17%, Cantonese 33%, Greek 33%, Mandarin 83%). Attrition rates were low (9%), ranging from 0% – 20% between language groups. Consent rates were high for clinicians, interpreters, and family; see Figure 1.

The consultation length varied, with mid-treatment reviews being the shortest; see Table 1. This study initially recruited only patients attending their first oncology consultation, as presumed the most information-dense. This eligibility criterion was then expanded to increase the eligible population as consultation length and patient feedback suggested that other consultation types were important and worth including.

Of the sixteen intervention participants who completed the SSI, all endorsed cultural sensitivity of the intervention materials, except occasional translation errors. Thirteen (81%) replayed the audio-recording, with four (31%) listening more than once. Ten (77%) reported that family also listened. The majority who replayed the audio-recording reported positive feedback on its utility (10 of 13, 77%), which was classified into 3 categories: (1) replay helped patient recall information, understand information, or make treatment decisions; (2) audio-recording made the doctor more attentive; (3) audio-recording was useful for family. One participant requested a second copy for her son, and two participants planned to audio-record future consultations.

Participants recommended audio-recording for lengthy, complex consultations. One participant was advised by his son not to replay the recording for fear it may negatively affect his father's mood. Three participants did not listen to the audio-recording because: the consultation was short with no new information; necessary technology not readily available; planned to listen but had not yet.

Feedback regarding the CIS was generally positive; however, some felt they were too basic or best for newly-diagnosed patients. Four participants gave positive feedback about the QPL, stating it assisted with systematically structuring and verbalising questions, increased question-asking, and would be most useful for newly-diagnosed patients, or patients whose medical situation had recently changed. Participants mentioned that short consultation length impeded question asking.

Of the thirteen who received the CIS and QPL, five (38.5%) remembered receiving these. Two (15%) remembered the QPL and one (8%) remembered the CIS. These three participants were provided with the QPL pre-consultation and the CIS post-consultation. Five (38.5%) participants did not remember either document, four of whom were in the initial cohort and so had received both documents pre-consultation.

Discussion

Results indicated that the intervention was culturally acceptable. The audio-recording component was feasible to implement and perceived to be effective, with 77% of patients who replayed reporting that they found it useful. Together these findings support a modified Phase II study.

While the sample size is small, the rate of audio-recording replay was higher than in previous studies in English-speaking populations (e.g. [10] in which 60.7% listened), which may reflect a greater need amongst migrant patients.

The consultation length and information density featured in participants' opinion of the value of the audio-recording. It is recommended that future studies focus on consultations that include treatment decisions or new information.

The QPL and CIS were forgotten by many participants, possibly due to cognitive overload. Provision of documents separately did not entirely eliminate the problem. Future studies may choose to provide fewer documents.

This pilot had a moderate consent rate, possibly due to recruiting within a vulnerable and research-naïve cohort. Many patients declined due to being overwhelmed or too busy. Future research should simplify participation to make it more manageable for patients. The variation in consent rates between language-groups (Mandarin-speaking patients had a high consent rate) suggests that migrant patients should not be regarded as a unified group. It is important to consider each migrant group separately.

Results from this pilot provide a foundation to inform future intervention studies in migrant psycho-oncology research, particularly those testing audio-recordings.

Conflicts of interest

The authors have no conflicts of interest to declare.

Acknowledgements

Study funded by National Health and Medical Research Council (#1047416). We thank the participants, RAs and other staff at Peter MacCallum Cancer Centre for their essential contributions.

Key points

- Developed a communication intervention for non-English speaking migrant cancer patients.
- Consultation audio-recording and study processes were culturally appropriate.
- Audio-recording was perceived to be effective, and replay was higher than previous studies, possibly reflecting a greater need in migrant patients.
- QPL and CIS were often forgotten by participants, suggesting the intervention should be simplified.
- Recruitment data highlighted unique characteristics of different migrant groups. Future studies should be mindful of the differences between language and cultural groups.

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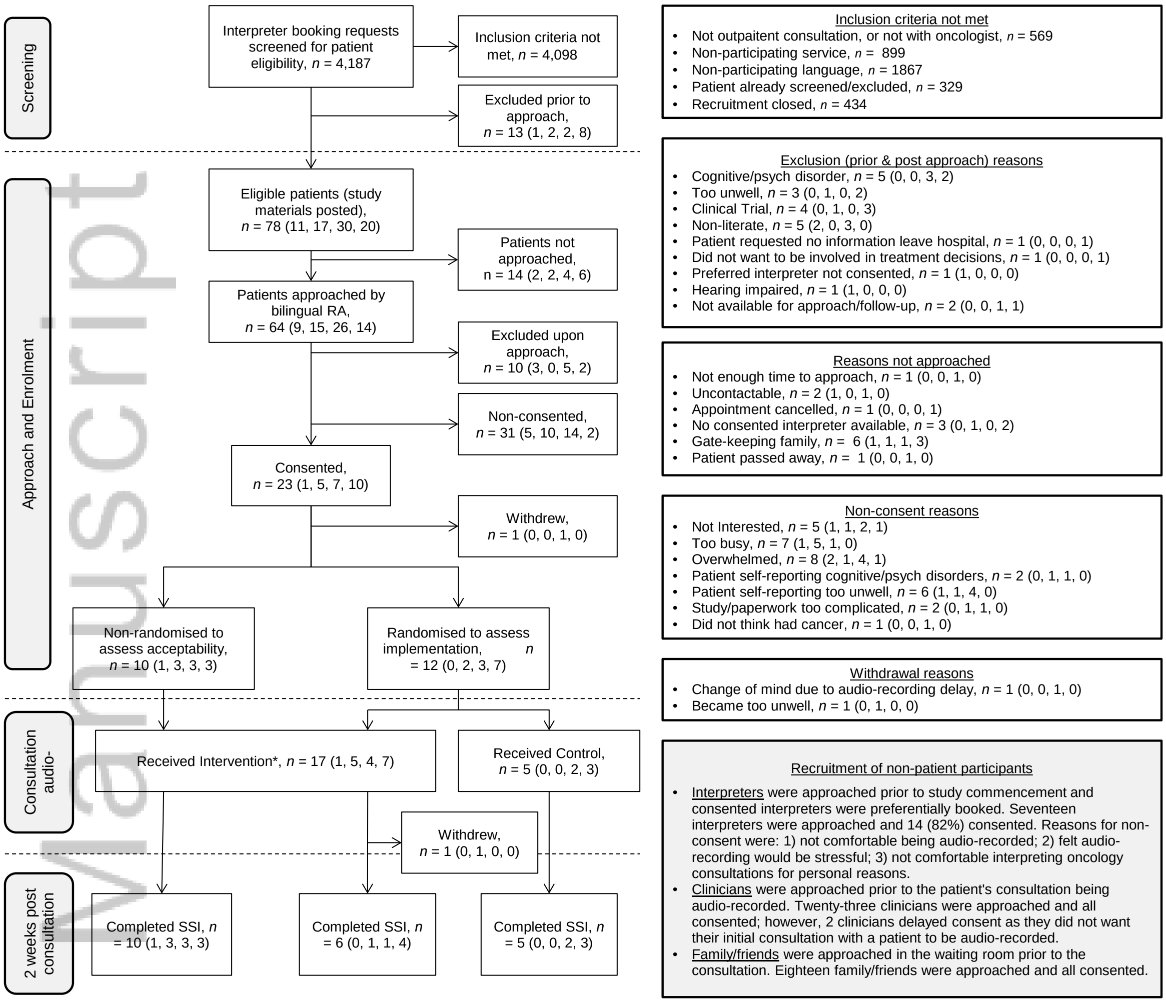
Table 1. Participant and consultation characteristics

	Non-English speaking patients (*n* = 23)[a]
Age in years, mean (SD, range)[b]	66 (8.6, 50-82)
Sex, *n* (%)[b]	
Male	14 (60.9)
Female	9 (39.1)
Language, *n* (%)[b]	
Arabic	1 (4.4)
Cantonese	5 (21.7)
Greek	7 (30.4)
Mandarin	10 (43.5)
Cancer Type, *n* (%)[b]	
Lung	8 (34.8)
Lower Gastrointestinal	5 (21.7)
Upper Gastrointestinal	2 (8.7)
Bone & Soft Tissue	2 (8.7)
Urology	2 (8.7)
Head & Neck	2 (8.7)
Haematology	2 (8.7)
Consult Type, *n* (%)	
First in hospital	3 (13.6)
First with specialist[b]	3 (13.6)
Mid-treatment	3 (13.6)
Post-scan, surgery, or other work-up	7 (31.8)
Routine review	6 (27.3)
Consult Length in minutes, mean (SD, range)	23 (11.7, 7-51)
First in hospital	33 (7.4, 25-39)
First with specialist[c]	30 (18.6, 15-51)
Mid-treatment	14 (9.6, 7-25)
Post-scan, surgery, or other work-up	19 (11.3, 7-35)
Routine review	21 (7.4, 13-35)

[a] *n* = 22 for Consultation Type and Consultation Length due to participant withdrawal
[b] Including withdrawn participants
[c] Participant had attended previous consultations at the hospital with different specialist

Figure 1. Study flow diagram and recruitment data

n = Overall number of non-English speaking patients (Arabic, Cantonese, Greek, Mandarin)



Inclusion criteria not met

- Not outpaitent consultation, or not with oncologist, *n* = 569
- Non-participating service, *n* = 899
- Non-participating language, *n* = 1867
- Patient already screened/excluded, *n* = 329
- Recruitment closed, *n* = 434

Exclusion (prior & post approach) reasons

- Cognitive/psych disorder, *n* = 5 (0, 0, 3, 2)
- Too unwell, *n* = 3 (0, 1, 0, 2)
- Clinical Trial, *n* = 4 (0, 1, 0, 3)
- Non-literate, *n* = 5 (2, 0, 3, 0)
- Patient requested no information leave hospital, *n* = 1 (0, 0, 0, 1)
- Did not want to be involved in treatment decisions, *n* = 1 (0, 0, 0, 1)
- Preferred interpreter not consented, *n* = 1 (1, 0, 0, 0)
- Hearing impaired, *n* = 1 (1, 0, 0, 0)
- Not available for approach/follow-up, *n* = 2 (0, 0, 1, 1)

Reasons not approached

- Not enough time to approach, *n* = 1 (0, 0, 1, 0)
- Uncontactable, *n* = 2 (1, 0, 1, 0)
- Appointment cancelled, *n* = 1 (0, 0, 0, 1)
- No consented interpreter available, *n* = 3 (0, 1, 0, 2)
- Gate-keeping family, *n* = 6 (1, 1, 1, 3)
- Patient passed away, *n* = 1 (0, 0, 1, 0)

Non-consent reasons

- Not Interested, *n* = 5 (1, 1, 2, 1)
- Too busy, *n* = 7 (1, 5, 1, 0)
- Overwhelmed, *n* = 8 (2, 1, 4, 1)
- Patient self-reporting cognitive/psych disorders, *n* = 2 (0, 1, 1, 0)
- Patient self-reporting too unwell, *n* = 6 (1, 1, 4, 0)
- Study/paperwork too complicated, *n* = 2 (0, 1, 1, 0)
- Did not think had cancer, *n* = 1 (0, 0, 1, 0)

Withdrawal reasons

- Change of mind due to audio-recording delay, *n* = 1 (0, 0, 1, 0)
- Became too unwell, *n* = 1 (0, 1, 0, 0)

Recruitment of non-patient participants

- Interpreters were approached prior to study commencement and consented interpreters were preferentially booked. Seventeen interpreters were approached and 14 (82%) consented. Reasons for non-consent were: 1) not comfortable being audio-recorded; 2) felt audio-recording would be stressful; 3) not comfortable interpreting oncology consultations for personal reasons.
- Clinicians were approached prior to the patient's consultation being audio-recorded. Twenty-three clinicians were approached and all consented; however, 2 clinicians delayed consent as they did not want their initial consultation with a patient to be audio-recorded.
- Family/friends were approached in the waiting room prior to the consultation. Eighteen family/friends were approached and all consented.

*CIS and QPL were withheld from 2 participants (0, 0, 1, 1) who had not yet received a cancer diagnosis and 1 participant (0, 0, 0, 1) due to administrative error