Outcomes to assess effects of communication skills trainings in oncology - Protocol for a systematic literature review

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Preamble
This protocol describes the planning details of a systematic review of publications about the measurement of effects of communication skills trainings in cancer.

Support
This review will be done within KOKON, a research project funded by the Deutsche Krebshilfe. The funder did not have any role in the development of this protocol.
Introduction

Rationale
It has been estimated that generally about 40% of patients with cancer use CAM during their illness [1]. Despite those high numbers and the perceived importance of CAM for patients, it has been reported that there is a high rate of non-disclosure of CAM treatments to treating oncologists [2,3] and that CAM use is not actively investigated by doctors [4]. In KOKON, we aim to develop and evaluate a workshop to improve physicians’ ability to counsel their patients about CAM. A pilot study showed that assessment of outcomes of such a workshop bears some problems, making it difficult to draw valid conclusions about the efficacy [5].

Generally, a large number of programmes have been developed to train physicians and other health care professionals (HCP) to communicate more effectively with cancer patients [6,7]. Although the benefit of communication trainings is appealing, a recent review of RCTs investigating the benefit show mixed results. While effects on communication skills were reported for some programmes, effects on more distal measures like patient reported outcomes could not be established [8]. Other reviews also report stronger effects of communication programmes on communication skills and compared to patients’ health [9,10]. Nonetheless, effects on patients’ health are considered as the ultimate target for communication trainings [9].

A critical problem regarding assessment of the evidence of such programmes is the choice of appropriate outcome measures [11,12]. Common outcome measures are usually divided in

1. self reported measures on programme participants (physicians and other HCPs)
   a. on their own communication skills (proximal)
   b. on overall work satisfaction, stress or similar (distal)
2. behavioral observations in real and/or simulated interactions with patients
3. patient-reported outcomes
   a. on the physicians or HCPs communication skills (proximal)
   b. on self-efficacy, anxiety, stress or similar (distal)

The advantages and disadvantages of these outcomes are evident. While self-reports from programme participants on communication skills are prone to various sorts of bias (such as social desirability), behavioural observations are labour expensive and finally, patient-reported outcomes are often influenced by a large number of variables, making it extremely difficult to identify specific effects of often short communications [12]. It has been argued that several problems regarding outcome measurement in communication trainings have hampered development of a solid evidence base, such as mismatch of outcome and training content or ceiling effects [12]. Therefore, it has been recommended to closely link outcome measures with programme contents, to use validated scales only and to assess long-term effects of the intervention [13]. However, due to the wide variation of different programmes and the different possible outcomes, there is no consensus yet which outcomes are most appropriate to use in evaluations of communication trainings in oncology.

Objectives
The systematic review shall serve as foundation for a consensus process between oncologists, outcome developers, communication researchers and patients. We aim to systematically identify all measures used to evaluate the effect of communication trainings in oncology in order to
• describe their content and theoretical foundation
• rate their quality in terms of reliability and validity (as far as available, including convergent, divergent, predictive validity)
• investigate their responsiveness to interventions aiming to alter communication styles.

Methods

Eligibility Criteria
In the review, studies fulfilling the following characteristics will be included:
• interventional study, observational study or review
• which assess the effects or evaluate standardised, communication skills trainings
• for physicians and other health care professionals
• in oncology
• for communication with adult patients
• published in scientific outlets or as reports, working papers or theses and similar.

Publications will be excluded if:
• outcome assessment is not standardized in the specific study, e.g. not all participants are evaluated using the same method.
• study report not available in English or German

Literature search
We will search the following databases for suitable publications:

1. Ovid MEDLINE
2. CENTRAL
3. CINAHL
4. EMBASE
5. PsychINFO
6. PsychARTICLES
7. Web of Science

In addition, we will hand-search reference lists of reviews investigating the effects of communication skill programmes in cancer for suitable publications.

Literature search terms
The following terms shall be used to identify relevant publications. Search terms were informed by previous reviews [7,8,11,12,14], which mostly investigated the effects of standardized communication trainings.

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<td>interview</td>
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We will use MeSH terms and limits to restrict the results to trials and observational studies in adult cancer patients, depending on the respective database.

Medline Search:

We will use MeSH terms and limits to restrict the results to trials and observational studies in adult cancer patients, depending on the respective database.

Selection of studies

An electronic database will be used to maintain the search results. Two reviewers will be included in the selection and data extraction of the search results. One reviewer will check all hits of the literature search and exclude clearly irrelevant articles based on titles and abstracts. Full text copies will be obtained of all remaining articles and assessed by at least two reviewers independently for eligibility. Publications will be excluded only on agreement between the two reviewers. Reasons for exclusion will be documented and any disagreements resolved by discussion (if necessary by a third reviewer). If several reports for a single study are published, all publications will be reviewed if they meet eligibility criteria.

Data extraction

Two reviewers will extract data from publications using a standardised form. The following is an initial table of possible extraction variables.

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<th>Extraction variables</th>
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| 7. Publication details of article | Journal issue  
                        Journal volume  
                        Article page numbers |        |
| 8. Place of research | Country where research conducted |        |
| 9. Language of publication | Language in which article was written.  
                              Abstract (if available) must be in English |        |
| 10. Communication programme | Description of the communication skills programme |        |
| 11. Groups           | Type of concurrent groups, e.g. intervention, control groups |        |
| 12. Sample Size      | Number of persons per Group |        |
| 13. Outcomes Definition | Plain text description of the outcomes of interest |        |
| 14. Number of distinct outcomes | Count of distinct outcomes measured in the study |        |
| 15. Outcomes Instrument | Names of the standardized outcome measures |        |
| 16. Type of outcome instruments | | Self-report questionnaire for HCP, Self-report questionnaire for patients, Checklist for observers |
| 17. Number of items per instrument | | number, if applicable |
| 18. Index per Instrument | Can one calculate an index score from the measure? | yes/no |
| 19. Outcome related effects | Effect of the intervention studied on the respective outcome | Mean Difference, Significance, Effect Size if available |
| 20. Outcome related limitations | Plain text of any limitations that result from the use of specific outcomes and (if applicable) any suggestions how to overcome those | |
| 21. Outcome references | References to papers describing the development process of outcome instruments | |
| 22. Comments of reviewer | Any comments to study from reviewer | |

**Assessment of level of evidence**
As this review is not one of the results of clinical research, assessment of the level of evidence will not be conducted.
Data Synthesis
As this review is intended to identify measures used in the field, no formal data synthesis will be conducted. However, use of specific outcomes measures shall be counted and outcome measures shall be rated in view of their psychometric properties.

Rating of outcome measures
Outcome measures identified shall be sorted in the above mentioned types:

1. self reported measures on programme participants (physicians or other HCP)
2. behavioral observations in real and/or simulated interactions with patients
3. patient-reported outcomes
and more precisely, if necessary.

In order to finally assess psychometric quality of the instruments used, we will obtain original papers on the development and validation of outcome measures identified, either as referenced in the identified studies or by hand searching. The rating of the psychometric quality will be conducted, following suggestions from the psychometrics group of the German Psychosomatic Society as far as applicable [15].

References


