Supplementary file 1

This supplementary file contains a more detailed description on the methods that were used to execute this study.

Methods

Study design

Between May 2018 and May 2019 a qualitative semi-structured telephone interview study was conducted following the Standards for Reporting Qualitative Research (SRQR) (Appendix A). The study was approved by the local ethics committee (CMO Arnhem – Nijmegen: registration number ECSW-LT-2022-3-11-40903). All participants agreed to participate after reading written information about the project and its aims and their consent was formally recorded.

Participants

Participants were required to participate in oncological MDTMs on a regular (e.g. weekly) basis. In order to maximise variation in participants' professional and demographic characteristics, we purposively sampled[1] interviewees based on five criteria: 1) sex; 2) medical specialist versus residents; 3) specialty (surgical, medical, and radiation oncology, radiology, nuclear radiology, and pathology); 4) type of hospital (peripheral or academic) and 5) region of hospital (coded to A-B-C-D, based on the provinces in the Netherlands). Of note: since the CNS and administrator usually do not make an active contribution to the MDTM, they were not included in this study. Interviewees were approached by email by two researchers (JW and ID) to participate in our study. After permission was obtained, an appointment was made.

Data collection

The primary researcher (JW) conducted semi-structured interviews. JW is a medical oncologist who has been attending two MDTMs per week for five years and received interview training prior to the study from an experienced researcher in the field of qualitative research (GH). Interviews were conducted using a topic guide, which was evaluated and adjusted if necessary after each interview. The main topics that guided question development were: MDTM quality, atmosphere and competences, and MDTM improvements and the future *(Appendix B).* These topics emerged from an extensive systematic literature search into quality factors for MDTMs prior to the interview study.[2, 3]

During the interviews JW used probes, took notes and summarised statements to fully comprehend and validate interviewees' perspectives. All interviewees gave their consent prior to each interview and were given the opportunity to reflect and comment on the accuracy and validity of the information obtained. All interviews were audiotaped and transcribed verbatim. Interviews had a median duration

of 38.7 minutes and lasted between 27 and 72 minutes. The transcripts were loaded and stored on the secure servers at the hospital where the researchers work, using ATLAS.ti software version 8.0, a software program for detailed coding in qualitative data analysis.

Data analysis

The data was analysed through thematic analysis, where the unit of analysis was the recorded interview. In thematic analysis researchers become familiar with the data by reading and re-reading the data, generating initial codes, finding overarching themes and revising those themes.(4) Three researchers (JW, RM, AO) were involved in reviewing and analysing the interview transcripts. RM and AO had different backgrounds than JW to ensure different reflexive positions (RM is a student of biomedicine, AO a health scientist). Relevant data was identified and structured using open, axial and selective coding. Coding is the interpretive process in which conceptual labels are given to the data.(5) Initially, all three researchers independently read the transcripts and coded relevant fragments (related to perceived facilitators and barriers to performing an efficient, competent and high-quality oncological MDTM) to minimise the subjectivity of findings (open coding). After each interview, the transcript was coded before the next interview took place. During the iterative analysis process, researchers frequently shared and discussed the uniqueness and meaning of generated open codes. After discussion, codes were reformulated and those with the same meaning were grouped into one unique code (axial coding). After the open and axial coding of the first 15 interviews, all three researchers reached consensus on a list of codes (codebook) that guided the further coding of the rest of the interviews performed by one researcher (RM). New codes and related text fragments were then discussed with at least one of the other researchers. Finally, in the last transcripts only data that provided additional insights were coded (selective coding). Data sufficiency was reached after 35 interviews: i.e. new data no longer provided additional insights relative to the research question.(6) During the iterative analysis process, researchers regularly shared and discussed the meaning and uniqueness of generated open codes. Throughout the analysis JW grouped codes belonging to the same concept into categories and finally identified themes from the data in consultation with other research members involved (ID, GH, RV). Data analysis was supported using a qualitative analysis software program (ATLAS.ti version 8.0).

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Supplemental material

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