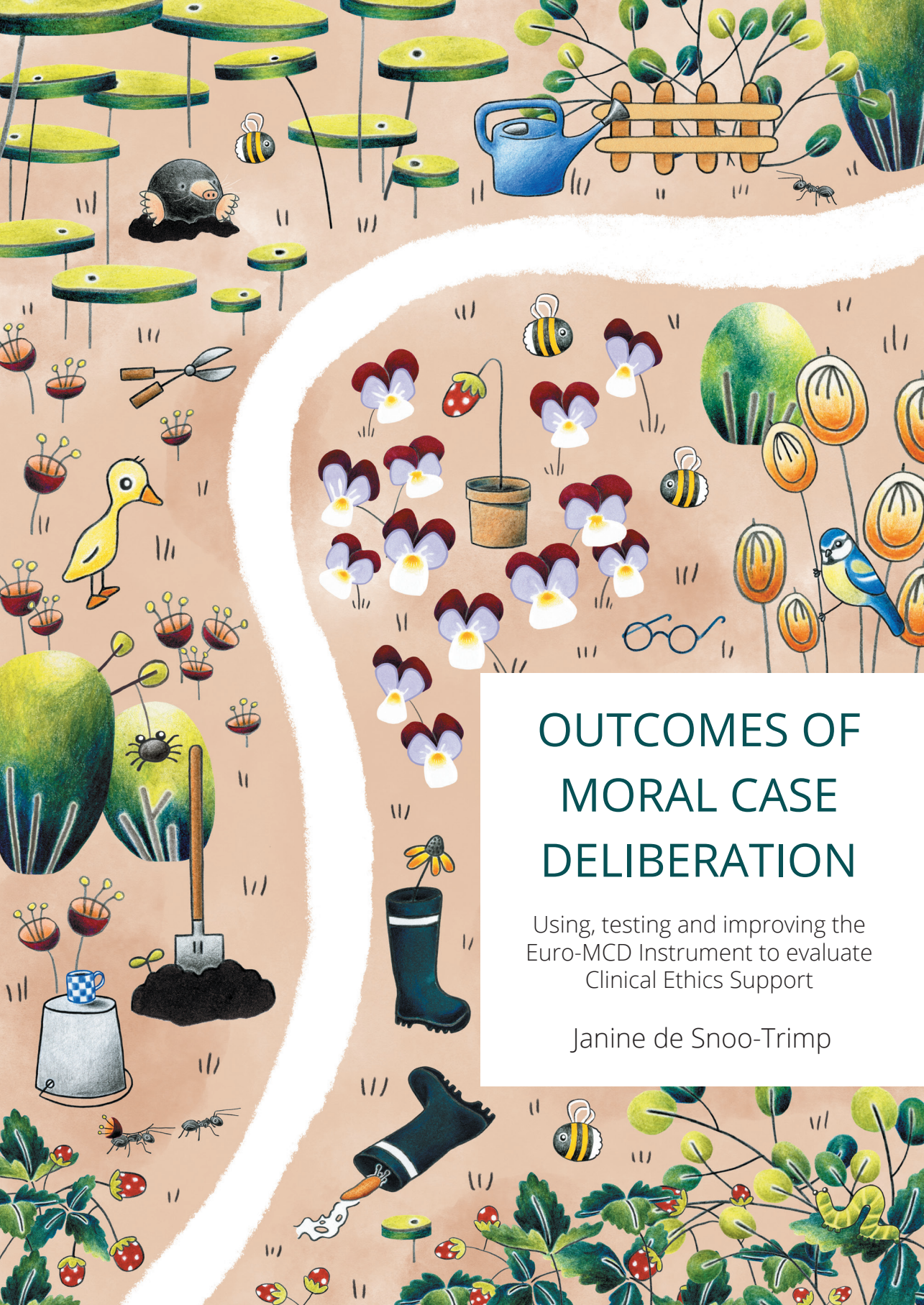

OUTCOMES OF MORAL CASE DELIBERATION

Using, testing and improving the Euro-MCD Instrument to evaluate Clinical Ethics Support

Janine de Snoo-Trimp

Outcomes of Moral Case Deliberation

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Outcomes of Moral Case Deliberation

Using, testing and improving the Euro-MCD Instrument to evaluate Clinical Ethics Support

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geboren te Zoetermeer

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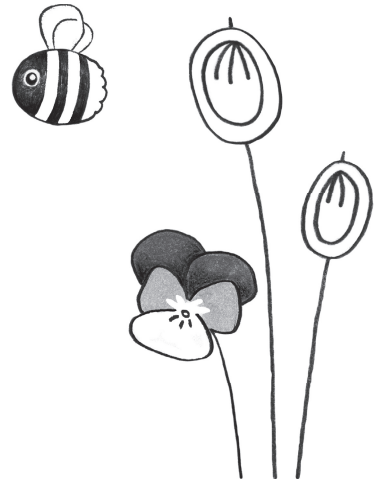
General introduction



Healthcare professionals can be confronted with ethically difficult situations in their daily practice, for instance when dilemmas arise on what is good care for a specific patient. Moral questions may arise, like to what extent should you try to convince a patient to comply with a treatment? Clinical ethics support (CES) services like moral case deliberation (MCD) aim to help healthcare professionals to handle these challenging situations. Evaluating outcomes of CES is increasingly needed to monitor and foster the added value of CES.

This thesis is about assessing outcomes of CES, in particular of MCD, and about revising an existing instrument for this (the Euro-MCD, published in 2014). In the first part of this introductory chapter, the field of CES and MCD and the need for evaluation research are described to show the context of the current study. The second part concerns the normative presuppositions of this study by describing theoretical viewpoints of performing evaluation research in this field. Thirdly, the original Euro-MCD Instrument from 2014 is presented, including a short description of the Euro-MCD revision project. Lastly, the outline and research questions of the thesis are presented.

Clinical ethics support and moral case deliberation

Services providing CES are regularly organized within many healthcare settings in Europe: academic and non-academic hospitals, mental healthcare institutions, nursing homes, community care and care institutions for people with mental disabilities (Slowther et al. 2012; Dauwerse et al. 2014; Hem et al. 2015; Bartholdson et al. 2016; Reiter-Theil & Schürmann 2016; Rasoal et al. 2017; Schochow et al. 2019). The implementation of CES services is increasingly endorsed by national laws (Hajibabaee et al. 2016), and recommended by public advisory boards (Munk 2005; Førde & Pedersen) and accreditation guidelines for healthcare institutions (JCAHO 2015). CES support can be provided in many forms: from individual ethics consultations to ethics committees and moral case deliberation sessions (Slowther et al. 2012; Aulisio 2016; Molewijk et al. 2017). In this thesis, we will focus on the latter, moral case deliberation (MCD).

MCD[1] is a reflective group dialogue about a moral question that is or has been experienced by one or more participant(s) in a concrete situation (Molewijk et al. 2008). An important theoretical background of MCD is hermeneutic philosophy, which assumes that moral understanding and moral learning start with focusing on concrete experiences (Widdershoven & Molewijk 2010). Participation in MCD means that a group

1 MCD is used here as an umbrella term, covering 'ethics rounds' (Svantesson 2008, Silén et al. 2014), 'ethics case reflection sessions' (Bartholdson et al. 2016) and 'ethics reflection groups' (Lillemoen & Pedersen 2015)

of people reflects on their experience in a specific situation from practice and considers what is morally at stake and what good care could entail in that situation (Widdershoven & Metselaar 2012). In MCD, understanding what is morally right starts with experience and exchanging experiences with others in an open dialogue (Widdershoven & Molewijk 2010). As such, ethical expertise on what is morally right is already present *within* the group of professionals participating in MCD, and is not provided only by an external ethicist (Metselaar et al. 2015). The dialogue within an MCD session is led by a (trained) facilitator who often uses a specific conversation method for structuring the moral inquiry (Stolper et al. 2015). MCD is especially common in the Netherlands (Dauwerse et al. 2014) and Scandinavian countries like Sweden (Svantesson et al. 2018) and Norway (Hem et al. 2018).

MCD can have different forms, as it is applied for diverse cases in a variety of contexts (Lillemoen & Pedersen 2015; Stolper et al. 2015; Tønnessen et al. 2015; Bartholdson et al. 2016; Magelssen et al. 2016; Hem et al. 2018; Svantesson et al. 2018). Also, various conversation methods for MCD exist (Van Dartel & Molewijk 2014). The approach slightly differs between the countries but contains more or less similar steps: 1) describing the case; 2) formulating the moral question; 3) reflecting on relevant facts and weighing relevant values and norms; and 4) drawing conclusions regarding insights and implications. However, there is variety in whether or not MCD facilitators (are trained to) use a specific conversation method, indicating that MCD is performed in various ways.

Need for evaluation research

In line with the increased attention for and provision of MCD – and CES in general –, the need for evaluation research also increased (Pfäfflin et al. 2009; Molewijk et al. 2017; Schildmann et al. 2019b). Since CES services in general aim to help healthcare professionals to deal with ethical issues, we need to know if these professionals are indeed helped by the CES service and if they – or other stakeholders – experience any further benefits or harms. Furthermore, evaluation research can provide important information regarding the quality of a CES service and thereby inform how to further improve the service. Also, insight into how CES services are evaluated informs how CES staff (like ethics consultants or MCD facilitators) could ideally be trained. Lastly, evaluation research might help to both foster and adjust the implementation of a CES service within a healthcare institution by demonstrating its added value and impact. Hence, evaluation research becomes more and more important now CES services increasingly become a recommended service in healthcare.

In the last decades, evaluation studies have been performed in the field of CES in general (Hem et al. 2015; Haltaufderheide et al. 2019; Schildmann et al. 2019a) and MCD in particular. Studies focusing on MCD concerned exploring participants' experiences with MCD (Svantesson et al. 2008a/b; Silén et al. 2016), describing participants' moral reasoning in MCD sessions (Tønessen et al. 2017; Svantesson et al. 2018), considering approaches to determine the quality of MCD (Jellema et al. 2017; Metselaar et al. 2017) and assessing outcomes of MCD services (Weidema et al. 2013; Söderhamn et al. 2015; Spijkerboer et al. 2017; Haan et al. 2018; Hem et al. 2018). These studies showed valuable insights in how MCD is performed or could be improved. However, clear evidence on outcomes of MCD and insights into the experiences of MCD participants regarding the impact on their daily practice is still lacking. Haan and colleagues (2018) reviewed the available evidence for the impact of MCD in 25 research articles and one of their conclusions was that 'there is limited empirical evidence with regard to the changes that are *actually* brought about in caring practices after the group conversation has taken place'.

One of the reasons for the lack of evidence for the impact of CES activities in general, and MCD in particular, is the complexity of the intervention. Schildmann et al. (2019b) described CES from the perspective of health service research and called CES a 'complex intervention' because all five criteria for complexity as stated by the Medical Research Council (Craig et al. 2008) hold: CES concerns numerous 1) interactions between stakeholders; 2) skills and special professional expertise of those involved; 3) levels of the organization, like healthcare professionals, patients and family members; 4) types of CES and 5) possible outcomes of CES (Schildmann et al. 2019b). Consequently, *evaluation* of a complex intervention is complex. It therefore requires a clear outline of presuppositions, goals and research design, in order to determine appropriate outcomes in a suitable way and to relate these outcomes to CES as intervention.

Evaluation of MCD is also complex because generally applicable definitions of 'good ethics support' or 'good care' are lacking. In the end, for defining good moral support the perspective of MCD participants is needed: what do they see as fostering moral competence? MCD presupposes that moral expertise is to be found among its participants: they collectively deliberate on what good care would entail in a certain situation (Molewijk et al. 2008; Metselaar et al. 2015). Hence, *only during* the deliberation in MCD among those involved in the specific situation, the answer to what good care would entail is defined and *only then* the specific morally right decision for that particular situation can be formulated (Haan et al. 2018; Schildmann et al. 2019b). Thus, evaluating outcomes of MCD is difficult as there are no given criteria for good ethics support and

for determining the morally right decision for the cases discussed. Whereas evaluation of any intervention would involve (implicit) normative decisions on how to determine what the effect *should* be (and according to whom), the normativity in evaluation of ethics support is especially at stake, 'because as part of CES [Services] we deliberate about good actions, the question of what is morally good and how to determine what is morally good' (Schildmann et al. 2013). Therefore, CES evaluation research requires explicit statements about its normative decisions on what good CES is and which outcomes should be selected by whom (Schildmann et al. 2013; Molewijk et al. 2017). Since we focus on outcomes of MCD, we will now explicitly consider the normativity of our approach to evaluation of MCD in the next section.

Normative presuppositions of evaluating MCD outcomes

In their plea for explicit attention for underlying normativity in CES evaluation research, Schildmann and colleagues (2013) have described three approaches to evaluate CES. These are: 1) descriptive quantitative evaluation, referring to 'numeric data on access, activities, structural features and further aspects according to which the set up and functioning of CES can be characterised'; 2) evaluation of predefined desirable outcomes (according to the ethics support researchers); and 3) evaluation research in which 'quality norms' are reconstructed during the process. The third approach of designing CES evaluation research consists of an open process in which the criteria for outcomes of CES are not determined beforehand but in and during the CES evaluation itself, involving all relevant stakeholders (e.g. experts and end-users), taking into account the specific and variable contexts in which CES is applied. The reason for this open, reflective and deliberative process is the normative presupposition that there are no universal definitions for what good moral support is and for what CES *should* bring about in practice. For this, stakeholders (both CES staff and CES users) should have an important say in the evaluation process.

The third approach of Schildmann et al. (2013) can be recognised in several bottom-up and dialogical approaches to MCD evaluation research (Abma et al. 2009; Metselaar et al. 2017; Haan et al. 2018). In these studies, the focus on MCD participants' perspectives is considered to be crucial for evaluating MCD, because participants are the ones that actually engage in the dialogue within MCD and only they might thus be able to report any changes in how they deal with the situation at hand (Widdershoven & Molewijk 2010). Consequently, in evaluating MCD outcomes, we should take the voice and experience of MCD participants into account in an open and deliberative process, since only then we can define what the outcomes essentially are and should be. The

third approach of Schildmann et al. (2013) fits therefore well as a starting point for our approach to evaluation of MCD outcomes.

Following this line of reasoning: what tool do we need to take the voice and experiences of participants of MCD into account? Qualitative and nuanced research on actual outcomes has been recommended in the literature review on impact of MCD (Haan et al. 2018). A type of this research is responsive evaluation, which involves continuous dialogues among stakeholders, experts and researchers, in which evaluation criteria and outcomes are identified and jointly defined (Abma et al. 2009). Schildmann et al. (2013) have suggested that responsive evaluation is a way to apply their third approach to evaluation research. To gain an overview of what MCD could lead to and to demonstrate the impact of MCD in a systematic way, quantitative research is also needed. In order to justify the implementation of MCD within healthcare settings and to adequately convince healthcare institutions' boards of directors of the benefits of MCD, a standardised and valid instrument can be helpful. Such an instrument can also allow for systematic comparisons among settings where MCD is applied, and to do this at different moments in time. Furthermore, quantified systematic information about outcomes on MCD might indicate possible ways for improvement of the quality of MCD and facilitation styles (e.g. when results show that MCD participants did not experience a certain outcome). Evidence-based quantitative methodologies for CES evaluation are therefore recommended (Svantesson et al. 2014; Schildmann et al. 2019b).

Summarizing, a quantitative evaluation tool on MCD related outcomes was needed that 1) focuses on the perspectives of MCD participants and 2) is developed according to empirically sound methodologies. The development of such a tool requires both qualitative as well as quantitative methods: qualitative for collecting and in-depth understanding of self-reported experiences and quantitative for describing and comparing self-reported outcomes and for testing reliability and validity of the tool's functioning. Besides, developing such a tool would require a close collaboration between experts from different fields (both clinical ethics, health service research and clinimetrics) and MCD participants in various contexts (Schildmann et al. 2019b). These requirements were the basis for Svantesson and colleagues (2014) for developing the Euro-MCD Instrument in 2014: 'a standardised outcome evaluation instrument for MCD that is developed according to rigid methodological standards and at the same time able to capture outcomes in different contexts'.

The Euro-MCD Instrument from 2014

The Euro-MCD Instrument was developed as a response to the lack of and need for validated instruments to collect empirical evidence on MCD outcomes (Svantesson et al. 2014). In line with our approach to evaluation of MCD outcomes as described before, the instrument included the perspectives of MCD participants regarding possible outcomes by suggesting a wide range of possible outcomes, asking to rate the importance of each outcome and offering free writing space for additional outcomes. The Euro-MCD Instrument aimed to systematically collect data both regarding what outcomes are important according to the MCD participants and regarding which outcomes they experienced. The latter was asked both with regard to their experiences *during* the MCD meetings as well as their experiences *beyond* MCD in their daily practice. As such, the instrument was (also) targeted to capture experienced impact in actual caring practices.

Concretely, the Euro-MCD Instrument consists of a list of 26 possible outcomes of MCD. This list was inductively built in a systematic process including a literature review, a Delphi panel with experts and content validity testing among pilot users of the Euro-MCD Instrument. In total, 86 participants from seven European countries contributed to its development. The 26 possible MCD outcomes were categorized into six domains: 1) Enhanced emotional support; 2) Enhanced collaboration; 3) Improved moral reflexivity; 4) Improved moral attitude; 5) Impact on the organizational level and 6) Concrete results (Svantesson et al. 2014). For each outcome, the respondent would be asked to rate the perceived importance, the potentially improved experience both during the MCD sessions and in daily practice after the MCD sessions on a four point Likert-scale. The instrument could be distributed when healthcare professionals have not yet participated in any MCD, asking which outcomes they perceive as important, and after a series of four MCDs, asking again how important the listed MCD outcomes are and asking to what extent they actually experienced these MCD outcomes. The instrument further consisted of some open questions asking to write outcomes down 'in your own words' that are perceived as important and that they have experienced, to collect information about potential MCD outcomes which were not listed yet. Lastly, demographical questions like gender, age and profession were included.

The Euro-MCD Revision Project (2014-2020)

In the presentation of the Euro-MCD Instrument in 2014, the developers already stated that it was not a finished product, but rather the start of a process to test the instrument and collect additional outcomes from healthcare professionals in the field (Svantesson et al. 2014). The Euro-MCD Revision Project, which forms the basis of this thesis, aimed to further validate the Euro-MCD Instrument from 2014. This was done

by analysing the perspectives of MCD participants regarding the relevance of items in a reflective and deliberative process, and by investigating the content validity of the instrument and the clustering of items into interpretable domains. For the latter, insight into (at least) the following aspects of the instrument was needed: possible patterns or clusters of items, both regarding their perceived importance as well as their experience and possible overlap between items or items that do not correlate with any of the other items in order to reduce the number of items (Svantesson et al. 2014).

Outline of thesis and research questions

This thesis describes the results of testing the Euro-MCD Instrument from 2014 and provides a comprehensive overview of outcomes valued and experienced by MCD participants. In our process of further developing the Euro-MCD Instrument, we facilitated reflective dialogues with MCD participants, MCD experts and among our research team about empirical findings from six Euro-MCD field studies, with ethics theory and theoretical viewpoints on MCD in mind. In the end, this thesis describes this revision process and presents the product of this process – the Euro-MCD 2.0.

The outline of the thesis is as follows. Chapter 2 and Chapter 3 present studies that examined the importance of the predefined outcomes in the Euro-MCD Instrument, according to healthcare professionals who were about to participate in a series of MCD, in order to study and support the content validity of the Euro-MCD Instrument from 2014. Chapter 2 describes the perceptions of Dutch healthcare professionals who were asked to describe important MCD outcomes in their own words and to rate the perceived importance of each predefined MCD outcome in the instrument. In addition, healthcare professionals were interviewed to gain a more in-depth insight into outcomes perceived as important. Chapter 3 describes the perceived importance according to a larger group of respondents from Sweden, Norway and the Netherlands and also presents a comparison between groups of respondents (country, profession, healthcare setting) regarding ratings on the Euro-MCD Instrument.

Next, results are presented of examining potential clustering of outcomes in the Euro-MCD Instrument: regarding the question on *important outcomes* in Chapter 4, and regarding the question on *experienced outcomes* in Chapter 5. Chapter 4 further assesses whether these respondents change in their perceptions on importance after a series of MCD. In Chapter 5, the outcomes experienced *during* the MCD sessions and *afterwards* in daily practice are also described.

In addition, to openly collect outcomes of MCD, to compare these with the outcomes in the Euro-MCD Instrument, and to consider meaningful categorisations of these outcomes, focus group sessions were organised with experienced MCD participants, which is described in Chapter 6. In the end, Chapter 7 presents the revision of the Euro-MCD Instrument by describing the revision process in which the empirical findings and points for discussions, as indicated in the preceding chapters, are integrated and interpreted. As such, this final chapter functions as the General Discussion of the thesis.

The overarching aim of this thesis is to use, test and improve the Euro-MCD Instrument. This aim will be investigated with the following research questions:

1. **USE:** What are important and experienced outcomes of MCD according to healthcare professionals before and after participation in a series of moral case deliberation? (Chapters 2-6)
2. **TEST:** What are the correlations among the various MCD outcomes in the Euro-MCD Instrument and which domains can be distinguished? (Chapters 4-5)
3. **IMPROVE:** How to integrate the empirical findings with reflections and dialogues among researchers and CES experts in order to present a profound and revised Euro-MCD Instrument? (Chapter 7)

In order to answer the research questions, various methodologies were used. In most studies, quantitative data and qualitative studies were combined. Detailed information on methodologies are outlined in the subsequent chapters. Ultimately, the new Euro-MCD 2.0 aims to help evaluation of outcomes in healthcare practices where MCD is applied by providing a profound and practical tool. Also, the thesis contributes to the research field of evaluation of CES by describing a balancing process of combining various methodologies, by developing an exemplary tool for evaluating outcomes and indicating themes for further study and debate.

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2

What outcomes do Dutch healthcare professionals perceive as important before participation in moral case deliberation?

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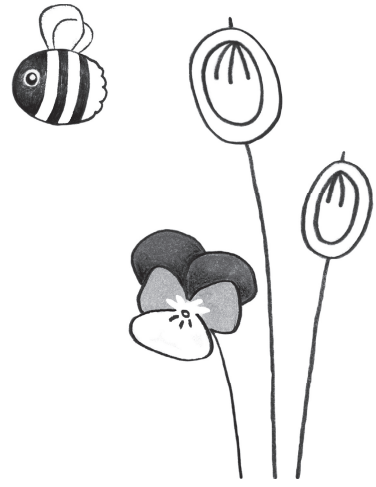

ABSTRACT

Background: There has been little attention paid to research on the outcomes of clinical ethics support (CES); and critical reflection on what constitutes a good CES outcome. Understanding how CES users perceive the importance of CES outcomes can contribute to a better understanding, use of and normative reflection on CES outcomes.

Objective: To describe the perceptions of Dutch healthcare professionals on important outcomes of moral case deliberation (MCD), prior to MCD participation, and to compare results between respondents.

Methods: This mixed-methods study used both the Euro-MCD Instrument and semi-structured interviews. Healthcare professionals who were about to implement MCD were recruited from nursing homes, hospitals, psychiatry and mentally disabled care institutions.

Results: 331 healthcare professionals completed the Euro-MCD instrument, 13 healthcare professionals were interviewed. The outcomes perceived as most important were 'more open communication', 'better mutual understanding', 'concrete actions', 'see the situation from different perspectives', 'consensus on how to manage the situation' and 'find more courses of action'. Interviewees also perceived improving quality of care, professionalism and the organization as important. Women, nurses, managers and professionals in mentally disabled care rated outcomes more highly than other respondents.

Conclusions: Dutch healthcare professionals perceived the MCD outcomes related to collaboration as most important. The empirical findings can contribute to shared ownership of MCD and a more specific use of MCD in different contexts. They can inform international comparative research on different CES types and contribute to normative discussions concerning CES outcomes. Future studies should reflect upon important MCD outcomes after having experienced MCD.

BACKGROUND

Ethically difficult situations are part of daily healthcare practice. They arise when healthcare professionals feel uncertain, powerless or uncomfortable about the care of their patients, or when they disagree about what constitutes good care (Varcoe et al. 2012; Lillemoen & Pedersen 2012; Lamiani et al. 2015; Kristoffersen et al. 2016). Not dealing appropriately with ethically difficult situations may lead to moral distress, which may result in reduced job satisfaction and even burnout (Lamiani et al. 2015). Various forms of clinical ethics support (CES) services are increasingly implemented in healthcare to help healthcare professionals to deal with ethically difficult situations (Aulisio et al. 2003; Slowther et al. 2004; McLean 2007; Lillemoen & Pedersen 2012; SAMS 2012; Tarzian 2013; Dauwerse et al. 2014; Johnson et al. 2015; Doran et al. 2016).

One form of CES is moral case deliberation (MCD).[1] In an MCD session, healthcare professionals jointly reflect on an ethically difficult situation that they have encountered in daily practice and which resulted in a moral question (Molewijk et al. 2008a; Weidema et al. 2013; Rasoal et al. 2016). Supported by a trained facilitator who does not give substantial advice with respect to the moral question at stake, participants discuss what constitutes morally good care in the specific situation and the basis for this (Molewijk et al. 2008a; Rasoal et al. 2016). In Scandinavian countries and the Netherlands, MCD is becoming a common practice in CES in various healthcare domains: psychiatry, hospitals, elderly care and care institutions for mentally disabled people (Olofsson et al. 2005; Molewijk et al. 2008a,b; Dauwerse et al. 2014; Hem et al. 2015; Janssens et al. 2015; Lillemoen & Pedersen 2012,2015; Rasoal et al. 2016; Silén et al. 2016). A recent study reported that, based on a national survey, 44 percent of Dutch healthcare institutions make use of MCD (Dauwerse et al. 2014).

MCD has its theoretical background in pragmatic hermeneutics and dialogical ethics: it focuses on the actual context of the situation and on perspectives and experiences of all involved (Molewijk et al. 2008a; Metselaar et al. 2015). The final response to the moral question arising from the case is not formulated by an external ethical expert but found through a collective investigation of the case, taking into account the perspectives

1 Moral case deliberation, also described as 'ethics rounds', 'ethics reflection groups' or 'ethics case reflections', differs from, for example, clinical ethics consultation in which the consultant has a more formal-procedural and expert approach. A central goal of the ethics consultant is to answer the question "Who is the appropriate decision maker?" in a morally and legally correct way, which differs from the central question in MCD: "what constitutes good care and for what reason?". Within MCD, the facilitator focuses more on the reasoning of the MCD participants themselves and the systematic dialogue about what constitutes good care. The process, the role of the ethicist and the central question at stake seem to differ between MCD and clinical ethics consultation.

of all involved (Metselaar et al. 2015). An important issue in organizing MCD within an institution is making the participants owners of MCD: they themselves should be actively involved, listened to, and made responsible for which themes need to be discussed and how to successfully organize MCD on a structural basis (Svantesson et al. 2014; Metselaar et al. 2015). Ownership implies that MCD should be tailored to some extent to the needs and prioritized outcomes of the participants.

Several studies have identified the goals and aims of MCD from a theoretical stance or based on views of managers and local coordinators of MCD, for instance: developing the moral competences of participants (such as a reflective and cooperative attitude), and jointly agreeing on the right course of action and improving quality of care (Dauwerse et al. 2013; Weidema et al. 2013). Little is known, however, about how healthcare professionals who have not yet participated in MCD perceive the importance of the various outcomes that they imagine may result from MCD. Svantesson and colleagues (2014) therefore developed the Euro-MCD Instrument to measure the perceived importance of MCD outcomes among participants. This instrument takes the variety of suggested goals of MCD and the lack of consensus about what MCD outcomes *should* be reached as a positive starting point, and includes a wide range of possible outcomes. The selection of outcomes for the instrument was made after a thorough literature review, a Delphi panel with experts, and cognitive and content validity testing among healthcare professionals. The final instrument includes 26 concrete MCD outcomes within 6 domains: 1) Enhanced Emotional Support, 2) Enhanced Collaboration, 3) Improved Moral Reflexivity, 4) Improved Moral Attitude, 5) Impact on the Organizational Level, and 6) Concrete Results. These outcomes can be rated on importance by respondents to gain insight into their perceived important outcomes, before and after multiple MCD sessions.

Knowledge of outcomes perceived as important by participants is important given the pragmatic hermeneutical roots of MCD, which imply the need to focus on participant views and experiences in attending MCD (Molewijk et al. 2008a; Svantesson et al. 2014). This knowledge can contribute to answering the normative question about the appropriateness of different outcomes of MCD. It is, however, important to not only provide a general overview, but to focus on potential differences between subgroups and individual variety.

This study describes the MCD outcomes that Dutch healthcare professionals perceive as important, through the following research questions: 1) How do healthcare professionals rate and prioritize predefined MCD outcomes? 2) How do they describe

important MCD outcomes themselves? and 3) How does perceived importance of MCD outcomes differ between various professionals, considering healthcare domain, gender, age and profession? Findings could inform the theoretical understanding of MCD, future implementation strategies, new CES evaluation research, the education of MCD facilitators, and the current professional debate regarding the normative question 'What constitutes a good outcome of CES?'.

METHODS

Design

This was a descriptive mixed-methods study with healthcare professionals without experience in MCD. The quantitative core was the Euro-MCD Instrument (Svantesson et al. 2014). This was supplemented by qualitative interviews to explore and further deepen the quantitative findings, and to provide additional MCD outcomes not covered by the instrument. A complete overview of all perceived important outcomes could thus be presented. The quantitative and qualitative data was collected and analyzed separately.

Sample

The respondents of the Euro-MCD Instrument were healthcare professionals from various Dutch healthcare institutions. These institutions were recruited between 2013 and 2015 through convenience sampling with the criterion that they were planning to implement MCD on a structural basis, with no earlier experience with MCD. In total, 12 healthcare institutions participated, including hospital care (N=3), mental healthcare (N=6, including care for mentally disabled, homeless and psychiatric patients) and elderly care (N=3), from all regions in the Netherlands. The MCDs in most institutions were introduced by managers to healthcare professionals and presented as a meeting led by a facilitator, in which professionals' moral cases would be discussed using a stepwise procedure.

Interviews were held in 2015 with 13 healthcare professionals from those healthcare institutions in order to gain a more in-depth insight into the importance of MCD outcomes. They were recruited using purposive sampling, irrespective of their answers on the questionnaire, to include respondents from various professions and specialties. They also had no previous MCD experience.

Data-collection

This study collected data in two ways: 1) using the Euro-MCD Instrument; and 2) by conducting interviews.

The Euro-MCD Instrument

The Euro-MCD Instrument contains two sections: a questionnaire to be administered *before* (Section I) and *after* (Section II) actual participation in MCD (Svantesson et al. 2014). Section I was used in the current study. The questionnaire was the Dutch version of the original English Euro-MCD questionnaire, which was translated and validated using two independent translators, content validity indexing, 'think-aloud'-interviews, back-translation, and cultural adaptation in the developmental process of the Euro-MCD instrument, as described in more detail by Svantesson et al. (2014). It was administered on paper.

The questionnaire includes 26 predefined MCD outcomes, the importance of which is each to be rated on a Likert scale ranging from 1 ('Not important') to 4 ('Very important'). The option 'Cannot take stand' was also possible. After the list of 26 outcomes, a fixed-choice question asks respondents to prioritize the five most important MCD outcomes from the list of 26. The ratings of the 26 predefined outcomes and the answers to the fixed-choice question provide an answer to the first research question of this study ('How do healthcare professionals rate and prioritize predefined MCD outcomes?'). The questionnaire includes an open-ended question at the start asking for three to five MCD outcomes perceived as important by the respondent. This question identifies outcomes described spontaneously by respondents without having read the 26 predefined outcomes. It is posed at the start of the questionnaire and explicitly asks respondents not to look ahead to the next page with the list of 26 outcomes. In this way, the answer to the second research question ('How do healthcare professionals describe important MCD outcomes themselves?') could be assessed. For the third research question ('How does perceived importance of MCD outcomes differ between various professionals, considering healthcare domain, gender, age and profession?'), extra data was collected on healthcare domain, gender, age and profession. Lastly, during the data collection process, a question was added at the start of the questionnaire, asking for current MCD experience to check whether they had indeed not yet participated in MCD.

Interviews

The first author conducted semi-structured interviews to gain additional insights into all the research questions of this study. The interview guide included questions about the outcomes that healthcare professionals perceived as important for themselves, the

team, client and organization. Respondents were invited to explain why they perceived their outcomes as important and how outcomes could be realized. A pilot interview resulted in the addition of the first question, about their general understanding of MCD, so that if necessary MCD could be explained briefly as a group meeting in which a moral question is discussed from their actual daily practice, supported by a facilitator and with the use of a stepwise procedure. The interviews lasted on average 29 minutes (range 14-46 minutes) and took place at the respondent's workplace. Interviews were audio-taped and transcribed verbatim.

Quantitative analysis of 26 outcomes and fixed-choice question

The ratings of the 26 predefined MCD outcomes and the answers to the fixed-choice question about the five most important outcomes in the Euro-MCD Instrument were analyzed descriptively using Statistical Package for Social Sciences (SPSS), version 22. For every rated outcome, the mean score was calculated. In line with the third research question, the ratings of the 26 outcomes were analyzed for subgroups, considering a p value of <0.05 to be statistically significant, using non-parametric statistical tests (Mann-Whitney U Test and Kruskal-Wallis). For outcomes that varied between more than one subgroup, further stratified analyses were performed to determine which factor mainly explained the differences.

Qualitative analysis of open-ended question and interviews

The qualitative findings collected from the open-ended questions in the Euro-MCD Instrument and the interviews, were analyzed inductively using open coding, as described by Strauss and Corbin (1990). Answers to the open-ended question 'Please describe 3-5 outcomes you find important' were labelled and categorized by JDST and AM independently. They compared their codes and jointly decided on categories and subcategories. The categorization was then discussed with MS until final agreement was reached. Interview transcripts were repeatedly read through for familiarity with the data. Open codes were then assigned to text fragments, which were then compared (JDST and AM) and merged into subcategories and categories. The categorization was then examined and discussed with another author (GW) and re-categorization continued until there was full agreement on categorization between the authors.

Ethical considerations

Written consent was obtained at the start of the interviews. Participation was voluntary. Completed questionnaires and interview transcripts were anonymously processed.

RESULTS

In total, 331 healthcare professionals completed the Euro-MCD Instrument and 13 healthcare professionals were interviewed. The characteristics of the Euro-MCD respondents are presented in Table 1. The majority were female (68%), and nurses (50%), and psychiatry was the prevailing specialty (53%). For each predefined outcome, an average number of 7 respondents (2%, range 2-12) gave no answer or selected 'Cannot take stand', and 65 respondents (20%) did not answer the open-ended question. For the fixed-choice question, 267 respondents (81%) described 5 outcomes, others described less than 5 (7%) or none (12%). Table 2 shows the characteristics of the 13 interviewed healthcare professionals.

Table 1. Respondents Euro-MCD instrument (N=331)

Sex	Female	N=227 (68%)
	Male	N=101 (31%)
Age, mean (range)	42 (22-65)	
	Younger than 35	N=99 (30%)
	35-45	N=97 (29%)
	45-55	N=86 (26%)
	55 and older	N=44 (13%)
Profession	Nurses[1]	N=167 (50%)
	Physician/specialists	N=26 (8%)
	Therapists[2]	N=88 (27%)
	Managers[3]	N=22 (7 %)
	Others[4]	N= 27 (8%)
Specialty	Nursing home	N=9 (3%)
	Hospital	N=99 (30%)
	Psychiatry	N=174 (53%)
	Mentally disabled	N=49 (15%)
Number of MCDs	0	N=163 (49%)
	1	N=45 (14%)
	>2	N=36 (11%)
	Missing	N=87 (26%)
Prof. exp., mean (range)	17 years (0-43)	
	Less than 7	N=87 (26%)
	8-15	N=85 (26%)
	16-29	N=98 (30%)
	30 and more	N=55 (17%)

[1] *Including registered nurses, nurse assistants, psychosocial workers and support workers*
[2] *Including social workers, physiotherapists, psychologists and spiritual caregivers*
[3] *Including policy makers and heads of departments*
[4] *Including interns, trustees, secretary, clients, researchers and volunteers*

Table 2. Respondents Interviews (N=13)	
Female/male	11/2
Profession	8 Nurses 2 Heads of department 3 Therapists
Specialty	4 Nursing home (3 institutions) 5 Hospital (2 institutions) 4 Psychiatry (2 institutions)

The results are presented in the order of the research questions. Firstly, the outcomes perceived as important are shown (research question 1, 'How do healthcare professionals rate and prioritize predefined MCD outcomes?'), based on the ratings of the predefined outcomes and the answers on the fixed-choice question in the Euro-MCD instrument. Secondly, the findings of the open-ended question and the analysis of the interviews are presented to answer the second research question ('How do healthcare professionals describe important MCD outcomes themselves?'). Finally, the differences between subgroups are described (research question 3, 'How does perceived importance of MCD outcomes differ between various professionals, considering healthcare domain, gender, age and profession?').

1. MCD outcomes perceived as most important

Table 3 shows the frequencies of answer options for each predefined MCD outcome of the Euro-MCD Instrument, ranged by descending mean scores on a Likert scale of 1-4. The outcomes perceived as most important were 'More open communication' (mean 3.39), 'Better mutual understanding of each other's reasoning and acting' (3.35), 'Concrete actions to manage the situation' (3.26), 'See the situation from different perspectives' (3.20), 'Consensus on how to manage the situation' (3.15), 'Find more courses of action to manage the situation' (3.14), 'Identify core ethical question in difficult situations' (3.13) and 'Develop skills to analyze' (3.13). These outcomes fall under the Euro-MCD domains of 'Enhanced collaboration', 'Improved moral reflexivity' and 'Concrete results'.

The outcomes that were most often given when respondents were asked to select the five most important outcomes from the list of 26 were very similar to the outcomes scored as most important when respondents were asked to rate each of the 26 predefined outcomes (Table 4). Specifically, the eight outcomes that were described most frequently in response to the fixed-choice question were also among the nine outcomes with the highest ratings for importance (see Table 3 and 4). The outcomes 'Concrete actions to manage the situation' and 'Find more courses of action to manage

Table 3. Results on Euro-MCD instrument (N=331) ordered by descending means

Outcome	Euro-MCD domain	Very important (4) N (%)
More open communication	Enhanced collaboration	150 (46)
Better mutual understanding of reasoning and acting	Enhanced collaboration	136 (42)
Concrete actions to manage the situation	Concrete results	122 (37)
See the situation from different perspectives	Improved moral reflexivity	107 (33)
Consensus on how to manage the situation	Concrete results	106 (32)
Find more courses of actions to manage the situation	Concrete results	97 (30)
Identify core ethical question in difficult situations	Improved moral reflexivity	100 (31)
Develop skills to analyze	Improved moral reflexivity	84 (26)
Examine practice/policies in workplace/organization	Impact on organization	82 (25)
More awareness of recurring ethical situations	Impact on organization	77 (23)
Enhanced mutual respect	Enhanced collaboration	87 (27)
Share difficult emotions and thoughts	Enhanced emotional support	79 (24)
Manage disagreements constructively	Enhanced collaboration	75 (23)
Develop practice/policy in workplace	Impact on organization	70 (21)
Gain more clarity about own responsibility	Improved moral attitude	68 (21)
Enhanced understanding of ethical theories	Improved moral reflexivity	67 (20)
Strengthened self-confidence to manage the situation	Enhanced emotional support	64 (20)
More awareness of preconceived notions	Improved moral attitude	72 (22)
Increased awareness of the complexity of the situation	Improved moral reflexivity	48 (15)
Greater opportunity for everyone to have their say	Enhanced collaboration	56 (17)
Better understanding of being a good professional	Improved moral attitude	54 (17)
Listen more seriously to other's opinions	Improved moral attitude	46 (14)
Feel more secure to express doubts or uncertainty	Enhanced emotional support	51 (16)
Increased awareness of own emotions	Enhanced emotional support	51 (16)
Better manage stress from the ethical situation	Enhanced emotional support	54 (17)
Courage to express my ethical standpoint	Improved moral attitude	41 (13)

Quite important (3) N (%)	Somewhat important (2) N (%)	Not important (1) N (%)	Cannot take stand + Drop outs N (%)	Mean (1-4 scale)
161 (49)	15 (5)	3 (1)	2 (0)	3.39
171 (52)	21 (6)	0 (0)	3 (1)	3.35
172 (52)	28 (9)	5 (2)	4 (1)	3.26
179 (54)	39 (12)	2 (1)	4 (1)	3.20
175 (53)	36 (11)	11 (3)	3 (1)	3.15
182 (56)	46 (14)	2 (1)	4 (1)	3.14
171 (52)	52 (16)	3 (1)	5 (2)	3.13
204 (62)	36 (11)	3 (1)	4 (2)	3.13
188 (58)	49 (15)	4 (1)	8 (2)	3.08
199 (61)	47 (14)	3 (1)	5 (2)	3.07
176 (54)	46 (14)	10 (3)	12 (4)	3.07
192 (59)	52 (16)	3 (1)	5 (2)	3.06
190 (58)	50 (15)	6 (2)	10 (3)	3.04
195 (59)	57 (17)	5 (2)	4 (1)	3.01
188 (58)	63 (19)	4 (1)	8 (2)	2.99
170 (52)	76 (23)	13 (4)	5 (2)	2.89
173 (53)	68 (21)	17 (5)	9 (3)	2.88
149 (46)	86 (26)	13 (4)	11 (3)	2.88
186 (57)	80 (24)	9 (3)	8 (2)	2.85
169 (52)	83 (26)	14 (4)	9 (3)	2.83
171 (52)	75 (23)	21 (6)	10 (3)	2.80
169 (52)	91 (28)	13 (4)	12 (4)	2.78
169 (52)	83 (25)	21 (6)	7 (2)	2.77
161 (49)	95 (29)	15 (5)	9 (3)	2.77
165 (50)	80 (24)	26 (8)	6 (2)	2.76
164 (50)	97 (30)	18 (6)	11 (3)	2.71

the situation' were prioritized more highly in the fixed-choice question than when responding to the 26 predefined outcomes.

Sixty-two individuals (19%) did not prioritize any of the five outcomes rated as most important by the respondents in general, as presented in Table 4. Most of these 62 were nurses (53%) and the majority worked in psychiatry (60%). These 62 individuals prioritized 'Strengthened self-confidence to manage the situation' (12 times), 'Enhanced mutual respect' (11 times) and 'Better understanding of being a good professional' (9 times).

Table 4. Prioritized outcomes as described in the fixed-choice question of Euro-MCD Instrument: *"Please list 5 of the above outcomes that you consider as most important (of the 26 outcomes)"*

Outcomes described most often by general population (N=331)	No. times described (% of 331)
Concrete actions to manage the situation	104 (31)
More open communication	103 (31)
Better mutual understanding of each other's reasoning and acting	101 (31)
Find more courses of action to manage the situation	92 (28)
See the situation from different perspectives	91 (27)
Consensus on how to manage the situation	89 (27)
Develop skills to analyze	75 (23)
Examine practice/policies in workplace/organization	72 (22)
Outcomes described by individuals who do not prioritize any of the 8 outcomes described most often by general population (N=62)	**No. times described (% of 62)**
Strengthened self-confidence to manage the situation	12 (19)
Enhanced mutual respect	11 (18)
Better understanding of being a good professional	9 (15)
Increased awareness of own emotions	8 (13)
Share difficult emotions and thoughts	8 (13)

2. Perceived important outcomes in the open-ended question and interviews

Analysis of answers to the open-ended question, asking for three to five intuitive important outcomes, resulted in the categorization presented in Table 5. Ten answers were found to be described exactly the same as predefined outcomes and were therefore not counted as intuitive outcomes. Several categories were related to highly rated predefined MCD outcomes in the instrument. Some new outcomes concerning teamwork were added.

Table 5. Categorization of answers to first open-ended question: spontaneously formulated outcomes *"Please formulate 3-5 outcomes you find important"*

Categories with highest number of outcomes		Number of codes
1.	Better mutual understanding of each other's reasoning and acting	56
2.	I see the ethically difficult situations from different perspectives	44
3.	More open communication among co-workers	39
4.	Enhanced feeling of safety in the team	31
5.	Enhanced mutual respect amongst co-workers	31
6.	Greater opportunity for everyone to have their say	27
7.	Reach a common ground	25

The healthcare professionals who were interviewed perceived outcomes as important within the following categories: 1) Better dealing with the ethically difficult situation; 2) Becoming a better professional; 3) Better teamwork; 4) Improving quality of care; and 5) Positive impact on the organization (see Table 6). The findings of the analyses of both the open-ended question and the interviews will be elucidated below, including similarities and differences between these qualitative and the former quantitative findings.

Table 6. Categories and subcategories of analysis of interviews

Category	Subcategories (number of codes)
Better dealing with the ethically difficult situation	Not necessarily a concrete solution (6) Finding more tools to deal with the situation (4) Finding well-considered solution (3) Finding creative solutions (2)
Becoming a better professional	Understanding what are our core values of work are (13) Learning to deal with emotions and stress (12) Being more reflective (8) Learning to be open to different views (8) Job satisfaction (7) Stand for what you believe in (6) More knowledge about ethics (4)
Better teamwork	Mutual understanding (26) Feeling safe to express oneself (20) Stronger team feeling (13) Having a moment to talk (12) Better support for each other (10) Open communication (7) Learning to deal with (different) opinions (6) Mutual respect (6)
Improving quality of care	Better approach by team (20) Better quality of care (13) Patient is more in center (8) Patient feels to be taken seriously (7) Patient feels more safe (5) Family benefits too (2)

Table 6. Continued	
Positive impact on organization	Increased awareness on all levels (12) Org. benefits from better employees (6) MCD/talking becomes more routine (5) Better reputation (3) Changing policies (3)

1) Better dealing with the ethically difficult situation

Interview respondents found it important to participate in MCD to find more tools to deal with ethically difficult situations. The solution could be made with more consideration as a result of MCD. Some interviewees and respondents to the open-ended question said that MCD should lead to a concrete result, for instance a more creative solution on which everyone could agree.

> …a person who refuses to eat or drink, the nutrition assistants are obliged to put down food and drinks. […] Well, I think that if you can discuss this in a moral case deliberation, that maybe you can find a much more creative solution than simply putting the food or drink there. *(Interview resp. M: therapist, nursing home)*

This is in line with the quantitative results, which showed that a concrete result is one of the most important outcomes (mean score: 3.26). For others, it was important to obtain clarity or a new perspective, and a concrete solution for a case was not that important.

> Look, it's not like there is a ready solution to all questions, at least, I don't expect there to be. But you might experience an eye-opener now and then. *(Interview resp. B: nurse, hospital)*

Several answers to the open-ended question were related to this outcome and categorized as 'Reach a common ground'. This is comparable to the highly rated predefined outcome 'Consensus on how to manage the situation' (mean score: 3.15). The term 'consensus' was not used by the interviewees.

> Determining a position together, so it might be easy to assess how colleagues would approach something in actual practice. *(Respondent Euro-MCD Instrument)*

2) Becoming a better professional

Interviewees found it important to become a better professional by becoming more reflective, learning to deal with emotions and stress and gaining knowledge about ethics. They stressed the importance of understanding the core principles and values of their work and being aware of those during daily work. By going into more depth, by participating in an MCD, they could better express what they believed in, also perceived to be important. In this way, MCD could enhance job satisfaction and the ability to let go of past things. The related predefined questionnaire outcome 'Better understanding of being a good professional' was, however, less highly rated (mean score: 2.80). Interviewees further thought they would have a better attitude towards others by placing themselves in someone else's shoes and learning to be open to different views. The outcome of seeing the situation from different perspectives, one of the most important predefined outcomes (mean score: 3.20), was also often answered in the open-ended question.

> [It's important] that you start using a broad approach, that is, outside your normal thinking pattern. So that you can jointly develop a concrete way to deal with situations. *(Respondent Euro-MCD Instrument)*
>
> ...I think sometimes you all get stuck in the fixed idea. [...] And a moral case deliberation [...] might open things up a little and give you a slightly different perspective. *(Interview resp. K: therapist, nursing home)*

3) Better teamwork

In the interviews and in answers to the open-ended question, many outcomes concerning the team were noted as important. The important outcomes, described earlier, of 'More open communication' (mean score: 3.39) and 'Better mutual understanding' (mean score: 3.35) were also found. One head of department within a hospital said about open communication:

> ...as head of the department I feel it's very important that people can do their work, on the ward [...] that we also feel free to discuss, did we do the right thing in this situation? Have we really done everything we wanted to do? And that the environment or mutual relationships are so open that I am comfortable enough to voice my opinion. *(Interview resp. F: head of department, hospital)*

An interviewed psychiatric nurse explained the improvement of mutual understanding as follows:

> "...you all have a very different outlook on life and you attach importance to different things [...] that is the most important thing, that you are aware of each other. That you think, well OK, but it is important to her to do it this way, or you don't address that element because you find it difficult, so let me do it because I have less of a problem with it. *(Interview resp. D: nurse, psychiatry)*

These outcomes were believed to be important because they would contribute to mutual respect between colleagues, to know each other better and to deal with different opinions and ways of working. For some, it was already important to have a set moment to talk with their colleagues about personal opinions and questions.

It was further important to establish a feeling of safety within the team.

> That everyone is able and feels free to express their own values in a safe environment. *(Respondent Euro-MCD Instrument)*
>
> ...if I don't understand why something is done the way it is done, I should feel free enough to ask a question about it. *(Interview resp. E: nurse, psychiatry)*

In this way, they would be better able to support one another. MCD could make the team stronger and in the end this would improve teamwork, team expertise and quality of care.

Several answers involved better listening to each other. A few nurses also emphasized in the interviews that other professions such as managers and physicians could listen better to them as a result of MCD, because they then better know the impact of decisions on nurses personally. The predefined outcome 'Listen better to other's opinions' was, however, not highly prioritized (mean score: 2.78).

> ...the managers [...] need to know [...] what problems we encounter or what is important to us... And whether we would like to see things differently. [...] also especially, well yes, the ethical element. Like, well this is what you ask from us, but do you realize that that also has a totally different consequence? [...] ...do they realize up there [...] what that means for all of us personally? *(Interview resp. D: nurse, psychiatry)*

Lastly, some interview respondents noted that outcomes were important for their colleagues rather than for themselves.

> I don't really have a problem, you know, with certain things , but maybe, for some people, it means that your work becomes more pleasant. *(Interview resp. G: nurse, hospital)*

4) Improving quality of care

Several interview respondents perceived quality of care as an important outcome of MCD. Quality of care was not a predefined outcome in the instrument and it is therefore not possible to compare this outcome with quantitative findings. Quality of care was found important because it was seen as the core aim of their work. The interviewees differed in opinions about the impact on the patient. In nursing homes, interviewees deemed it important to place the client nearer the center through MCD. Some also said that the family of the client should benefit from MCD. Therapists noted the impact of a team approach to the patient, which was regarded as an important outcome of giving more space to discuss issues in an MCD.

> When I walk onto a ward and … (laughter) someone has a birthday and they have had cake with their coffee, and oh then they will get back to work in a good mood and then it is like 'oh, how are you?' and… whereas if they have just heard that there won't be any holiday replacement because there is no money… oh then it is so hard… So if such little things can affect what eventually reaches the client! Then I think, well if it is really easy to discuss some things, then, then they will have a little more breathing space. *(Interview resp. J: therapist, nursing home)*

In psychiatry, better care was also linked to a better approach to the client by the team, because in this way, actions are explained more clearly to the patient.

> …the clearer it is to us, the more clearly we can communicate it to patients. *(Interview respondent D, nurse, psychiatry*)

In hospitals, nurses perceived it as important that a patient would notice that professionals become more open towards them and that the patient might feel more safe and taken seriously because of this.

> ...I hope they will notice that maybe it's possible to listen to them with an even more open attitude. [...] yes that they will notice there is safety, in that area also. That maybe they will feel free to express their opinions sooner. *(Interview resp. B: nurse, hospital)*

> ... I think it contributes to a qualitatively better way of providing care. [...] It is not only about 'has someone been washed?'. It's about so much more, [...] also the quality we deliver. *(Interview resp. K: therapist, nursing home)*

5) Positive impact on organization

In the interviews, the outcomes of MCD for the organization were also perceived as important. An organization might benefit from MCD by having more satisfied and competent employees. Interviewees also hoped that MCD would become easy to do whenever needed, as a sort of routine. Some pointed out the potential of changing policies within the organization. By implementing MCD an organization could further show that their care is not only about quantity but more about quality and focused on patient-centered care. This could enhance their reputation.

Several interviewees also emphasized that it is important to improve awareness at all levels.

Lastly, some respondents did not yet have ideas about important outcomes of MCD. In answers to the open-ended question, the answer '*no idea*' was found four times. Some interviewees said they found it difficult to answer the questions without having experienced MCD yet.

> No idea. I think we're doing pretty well. I'm curious to see what this will add. *(Respondent Euro-MCD Instrument)*

3. Differences in the perceived importance of MCD outcomes between subgroups

The subgroups of gender, profession, specialty, experience with MCD and age generated several differences in perception of important outcomes. Table 7 shows the significant differences. Women scored higher on all outcomes than men, including many significant differences. Physicians and therapists rated some outcomes significantly

lower compared to the other professions, and especially nurses and managers. Physicians scored significantly lower than all other professions on the outcome 'Better understanding of being a good professional', as did respondents working in hospital care compared to those working in mentally disabled care. Further stratified analysis showed that the difference between respondents working in mentally disabled care and those working in hospital care could be explained by the fact that more physicians were working in hospital care.

Respondents working in mentally disabled care scored higher on all outcomes, including several significant differences. The different scores for the outcome 'Listen more seriously to others' opinions' can, however, be explained by the fact that more nurses and managers were working in mentally disabled care. Respondents working in psychiatry rated the outcome 'See the situation from different perspectives' lower than others, but further stratification showed that this difference could be explained by the difference between women and men, as more men worked in psychiatry. The fact that more men worked in psychiatry also explained the significant difference between mentally disabled care and psychiatry, for the outcome 'Concrete actions'.

A substantial number of respondents (25%) already had experience with MCD, and since this question was added during the study, the experience of some other respondents (26%) is unknown. Given this relatively large number of respondents with experience, the scores of experienced respondents were compared with those of the other respondents. Statistical comparison showed that respondents with experience in MCD scored higher on the outcome 'Consensus on how to manage the situation', and had lower scores on the outcomes 'Develop skills to analyze' and 'Enhanced understanding of ethical theories'. For the outcome 'Develop skills to analyze', stratified analyses showed that this difference was not significant within the group of female respondents, which implies that this difference could be explained by the fact that there were more women without, or with unknown, MCD experience than men. Stratified analyses for the outcome 'Enhanced understanding of ethical theories' also showed that this difference could be explained by the fact that more respondents without, or with unknown, experience were working in mentally disabled care and/or belong to the professional groups of nurses, managers or others.

Table 7. Differences between subgroups in perception of important outcomes (only significant differences are shown)

Outcomes	Mean[1]		P-value[2]
More important according to women than men	Women	Men	
Develop skills to analyze	3.17	3.01	0.031
More open communication	3.45	3.25	0.012
Better manage the stress from the ethical situation	2.85	2.56	0.003
Feel more secure to express doubts or uncertainty	2.87	2.57	0.002
Better mutual understanding of reasoning and acting	3.43	3.20	0.004
See the situation from different perspectives	3.27	3.03	0.004
Concrete actions to manage the situation	3.29	3.17	0.048
Share difficult emotions and thoughts	3.14	2.91	0.006
Strengthened self-confidence to manage the situation	2.99	2.64	0.000
Identify core ethical question in difficult situations	3.20	2.98	0.011
Examine practice/policies in workplace/organization	3.15	2.93	0.011
Gain more clarity about own responsibility	3.05	2.84	0.009
More important according to nurses/managers/oth. than physicians and therapists	Other prof.	Phys. and ther.	
More open communication	3.47	3.24	0.002
Better manage the stress from the ethical situation	2.90	2.50	0.000
Enhanced understanding of ethical theories	3.00	2.70	0.003
Listen more seriously to others' opinions	2.88	2.59	0.002
More important according to all other professions than physicians	Other prof.	Physicians	
Better understanding of being a good professional	2.85	2.27	0.000
More important according to respondents in ment. dis. care than hospitals	Ment. dis. care	Hospitals	
Enhanced understanding of ethical theories	3.12	2.71	0.004
Better understanding of being a good professional	3.06	2.63	0.006
More important according to respondents in ment. dis. care than other specialties	Ment. dis. care	Other spec.	
Develop skills to analyze	3.49	3.06	0.000
Gain more clarity about own responsibility	3.22	2.95	0.009
Find more courses of action to manage the situation	3.45	3.09	0.000
Listen more seriously to others' opinions	3.02	2.73	0.016
Strengthened self-confidence to manage the situation	3.19	2.83	0.002
Identify core ethical question in difficult situations	3.47	3.07	0.000
Examine practice/policies in workplace/organization	3.35	3.03	0.002
More important according to respondents in ment. dis. care than psychiatry	Ment. dis. care	Psychiatry	
Better mutual understanding of reasoning and acting	3.53	3.26	0.007
Concrete actions to manage the situation	3.47	3.20	0.008
Greater opportunity for everyone to have their say	3.08	2.76	0.008
More awareness of recurring ethical situations	3.29	3.02	0.010
More important according to respondents in other specialties than psychiatry	Other spec.	Psychiatry	
See the situation from different perspectives	3.29	3.12	0.009

Table 7. Continued

More important according to respondents with MCD-experience than all others	>1 MCD exp.	No/unknown	
Consensus on how to manage the situation	3.33	3.09	0.007
More important according to other respondents than respondents with MCD exp.	**No/unknown**	**>1 MCD exp.**	
Develop skills to analyze	3.18	2.98	0.010
Enhanced understanding of ethical theories	2.98	2.61	0.001
More important according to older (>45y) respondents than younger (<45y) ones	**>45y**	**<45y**	
Increased awareness of the complexity of the situation	2.99	2.75	0.002
Enhanced understanding of ethical theories	3.09	2.77	0.001
Listen more seriously to other's opinions	2.96	2.65	0.000

[1] Mean score on the 1-4 Likert-scale: 1= 'Not important' to 4= 'Very important'.
A higher mean score means the subgroup perceived the outcome as more important. [2]Mann-Whitney U Test, significance level: 0.05.
For specialty, profession, experience with MCD and age groups, a Kruskal-Wallis test was performed firstly to compare groups. Only for significant outcomes was a further Mann Whitney U test performed.

Lastly, the outcomes 'Increased awareness of the complexity of the situation', 'Enhanced understanding of ethical theories' and 'Listen more seriously to others' opinions' were perceived as more important by respondents above the age of 45 than by younger respondents.

DISCUSSION

This study identified the important MCD outcomes perceived by 331 Dutch healthcare professionals before their actual MCD participation. Many important outcomes referred to the Euro-MCD domain of 'Enhanced collaboration': 'more open communication', 'better mutual understanding', 'feeling safe', 'mutual respect' and 'better listening'. Other prioritized outcomes were linked to the Euro-MCD domain of 'Improved moral reflexivity': to 'see the situation from different perspectives', 'identify the core ethical question' and 'develop skills to analyze'. Respondents perceived 'concrete actions to manage the situation' and 'consensus on how to handle the situation' as important outcomes within the Euro-MCD domain 'Concrete results' (Svantesson et al. 2014). In the interviews, MCD outcomes related to quality of care, professionalism and the organization were also noted. The latter two are more or less covered by the domains 'Improved moral reflexivity' and 'Enhanced collaboration'. Quality of care, however, was not included in the predefined 26 MCD outcomes in the instrument. Women perceived outcomes as more important than men. Healthcare professionals caring for people

with a mental disability scored higher than other specialties on all predefined MCD outcomes. Physicians and therapists further perceived being a good professional, communication, understanding ethical theories and managing stress as less important than nurses and managers, although scores were still high. Lastly, the interviewed nurses perceived the outcome of being listened to as highly important.

Prior MCD evaluation studies reported that MCD participants experienced several outcomes regarding collaboration. The importance of more open communication is described both as expected before participation (Weidema et al. 2013) and experienced during MCD (Molewijk et al. 2008b; Weidema et al. 2013; Hem et al. 2015). Better mutual understanding was also described in the literature as an outcome experienced (Molewijk et al. 2008a,b; Svantesson et al. 2008; Weidema et al. 2013; Janssens et al. 2015). Several studies explained that MCD participants saw the situation from different perspectives, which was perceived as highly important in the current study (Olofsson et al. 2005; Førde et al. 2008; Molewijk et al. 2008a,b; Svantesson et al. 2008; Weidema et al. 2013; Silén et al. 2016).

In the quantitative part of this study, healthcare professionals perceived a concrete action as an important outcome for MCD, however, the interviewed professionals were not unanimous about the importance of finding a concrete result. In literature, some studies about the experiences of MCD showed that respondents were disappointed about the lack of clear answers (Molewijk et al. 2008b; Svantesson et al. 2008). For instance, Svantesson and colleagues (2008) described how 'there was a "wish for the answer book"'. Førde et al. (2008) however, described the experiences of physicians and found that 'finding the "single right" solution was not seen as the most important outcome'. It might therefore be useful to distinguish concrete results from finding the right answer. This issue deserves further investigation.

Interview respondents noted the importance of improving quality of care by MCD. Improving care has also been described as a goal of MCD (Molewijk et al. 2008a; Dauwerse et al. 2013). The Euro-MCD Instrument used in this study, currently does not include outcomes explicitly referring to quality of care. It was discarded for being 'too vague' in the developmental process (Svantesson et al. 2014). The qualitative findings nevertheless indicated that healthcare professionals viewed this outcome as important. This might indicate a need to reconsider the instrument by including outcomes about quality of care in future versions, possibly more specified and concrete.

The current study further showed that the outcomes of MCD were perceived as more important by respondents working in care for people with a mental disability than by other respondents. It is unknown whether this is because respondents in care for people with a mental disability experience more moral dilemmas, or currently receive less ethical support. Ethical issues in this field mainly seem to concern autonomy, dependency and vulnerability of patients and their sometimes challenging behavior (Kittay 2001; Morris 2001; Hastings 2002). There is also some evidence for a link between caring for people with a mental disability, more stress and potentially being at risk of developing burnout, in which case increasing support for those caregivers is suggested as a solution (Dyer & Quine 1998; Ito et al. 1999; Hastings 2002; Mitchell & Hastings 2001). It might therefore be that MCD is seen as a welcome support service for those caregivers.

The qualitative findings showed a difference between nurses and physicians and managers, especially regarding the importance of better listening to each other. Nurses perceived this outcome as more important than managers and physicians. This might suggest the experience of some nurses not being involved in decision-making by their managers or physicians, but this conclusion should be treated cautiously, as the respondents were not asked about the current situation and it was not found in the quantitative part of the study. Nevertheless, nurses and managers also perceived many other outcomes as more important than therapists and physicians. This might suggest a strong need for CES among nurses and managers, which is also suggested in the literature (Poikkeus et al. 2013; Lamiani et al. 2015). One reason could be that nurses encounter more situations in which they feel uncertain, powerless or unsupported since they work more closely with patients. Lillemoen and Pedersen (2012) found that 'nurses experienced ethical challenges related to unsatisfactory care more often and also reported the ethical challenges to be more burdensome than the other large professional groups working closest to the patient'. Physicians and therapists might already have better access to CES or participate in other forms of problem-solving group discussions, such as peer supervision. The high prioritization of outcomes by nurses might therefore be explained by the possibility that MCD is the first type of CES that also reaches out to nurses at their workplace. Managers are also usually involved in organizing MCD, which may explain why they are positive about it, and perceived outcomes as highly important in the current study.

This study also showed differences between individuals. This suggests that there might be healthcare professionals who do not recognize themselves in the outcomes that are perceived as most important in general in this study, as did 62 individuals in this study.

It is therefore particularly useful to assess individual needs and only then list important MCD outcomes, instead of assuming generally perceived important outcomes. This is of crucial importance for managers and professionals who want to implement MCD within their institution. It may be useful to ask about, and discuss, the main goals of MCD with actual participants before starting MCD sessions. The finding that respondents differ in their perceived importance of MCD outcomes further confirms the complexity of studying MCD outcomes, and therefore, the views of targeted healthcare professionals should explicitly be taken into account and listened to, in order to make MCD a success.

The outcomes perceived as most important by participants in the present study are in line with outcomes discussed in the literature, referring to the philosophical basis of MCD. According to Metselaar and colleagues (2015), the dialogical approach of MCD fosters a 'joint process of moral learning' through which participants can develop moral competences such as understanding each other's positions and being opened to other perspectives. The development of moral competences such as a better listening attitude and more awareness of own behavior is also shown in other studies (Molewijk et al. 2008a; Dauwerse et al. 2013; Hem et al. 2015). Michael Parker (2012) uses the more manifest term 'moral craft' as the commitment of health care professionals 'to do their job well for its own sake [...], which informs their willingness and interest in learning about and discussing problems encountered by others.' As shown in the current study, outcomes referring to moral competences such as more open communication, seeing the situation from different perspectives, better mutual understanding of each other's reasoning and actions, and improved moral reflexivity are very important according to healthcare professionals.

The current study also brings to light outcomes which are not so prominent in the theoretical literature, however, such as mutual respect and feeling safe. These outcomes are related to establishing an ethical climate in which healthcare professionals have the opportunity, and feel supported, to speak openly about ethically difficult situations (Hwang & Park 2014; Numminen et al. 2014; Silén et al. 2016). Several studies suggest the importance of moral competences for promoting an ethical climate, which might enhance job satisfaction (Ulrich et al. 2007; Numminen et al. 2014) reduce moral distress (Pauly et al. 2009; Silén et al. 2016) and medical errors (Hwang & Park 2014). In this way, quality of care could be improved (Kish-Gephart et al. 2010; Lützén et al. 2010; Huang et al. 2012; Silén et al. 2012; Varcoe et al. 2012; Hwang & Park 2014). A positive ethical climate is seen as both a precondition for, and the consequence of, developing moral competences (Pauly et al. 2009; Numminen et al. 2014). Respect for persons with different or even opposing viewpoints and the capacity to deal constructively with

disagreement might be important moral competences, and crucial for dealing with ethical challenges. To enhance moral competences and the ethical climate, CES has been suggested (Silén et al. 2012; Bartholdson et al. 2016; Poikkeus et al. 2016). On the other hand, to successfully start CES in order to stimulate the development of moral competences, some preconditions regarding the ethical climate are also necessary.

The current findings can further be linked to the goals and aims described in literature regarding MCD. Dauwerse et al. (2013) described goals according to Dutch MCD coordinators: encouraging an ethical climate; fostering an accountable and transparent organization; developing professionalism and good care. The goals of ethical climate, professionalism and good care are confirmed by the present findings about the team, personal development and quality of care. Local coordinators and healthcare professionals might therefore not differ substantially in their perceived important outcomes, which could strengthen the implementation of MCD within healthcare. The congruence regarding perceptions of quality of care as an important outcome confirms the need to reconsider including this in the instrument.

This study focused on MCD as one form of CES, which may give rise to the question of whether the findings would also be applicable to other CES services. For instance, clinical ethics committees aim to support, advise and reassure clinicians in dealing with ethically difficult situations and their focus on giving advice might therefore emphasize outcomes such as concrete results, as were also perceived as important in the current study (Slowther et al. 2004; Hurst et al. 2007). It might be the case, however, that outcomes referring to teamwork and developing moral competences, which are important for MCD participants, are less important for healthcare professionals who consult clinical ethics committees. Clinical ethics committees in general involve individual healthcare professionals who do not always participate themselves in the deliberation, thereby not influencing the team collaboration, group dynamics or moral competencies of those healthcare professionals (Slowther et al. 2004; Hurst et al. 2007; Pfäfflin et al. 2009; Numminen et al. 2014). It might therefore be expected that the different types and goals of CES services will be reflected in their perceived important and experienced outcomes. This needs to be investigated in further research, including different types of CES services.

Although perceptions of participants are essential for reflection on the aims of CES services, this does not imply that participant opinions about outcomes determine the final aim of CES services. There might be outcomes which are less appropriate, even if the majority of service users find them very important. On the other hand,

outcomes not described by CES service users as important might be essential from a theoretical point of view. Empirical data from the MCD participants in this study, on the importance of certain outcomes, might inform and challenge theoretical and normative thinking on MCD and CES outcomes. In answering normative questions concerning outcomes of CES services, the perspectives and theoretical considerations should both be regarded as relevant. In line with ideas developed in empirical ethics, the views and experiences of professionals and the beliefs of ethical experts about what constitutes a good CES outcome should be integrated. This can be done by organizing an exchange in a reflective and dialogical way (Widdershoven et al. 2009; Metselaar et al. 2015). Ethics expert opinions also played a crucial role in the development of the Euro-MCD instrument (Svantesson et al. 2014). A next step would now be to use the views of healthcare professionals as input for ethics expert reflection. The exchange between healthcare professionals' viewpoints of CES service users and theoretical considerations can further improve the Euro-MCD instrument and stimulate the appropriate use of CES in clinical practice.

Strengths and limitations

This is the first study to investigate MCD outcomes that are perceived as important according to a large group of healthcare professionals from various specialties and professions, throughout the Netherlands. A key strength was the use of both quantitative and qualitative data, providing a rich overview of important outcomes. A limitation was that no healthcare professionals from mentally disabled care were interviewed. Another limitation was that specialties and professions were not distributed equally in the sample size, with a slight overrepresentation of nurses and psychiatry. Lastly, there was no insight into how the healthcare institutions specifically introduced MCD to their healthcare professionals and it was not known whether all respondents had already experienced an MCD. The actual experience of those who reported already having experience was unclear, however. For instance, some institutions had organized an introductory meeting which might be interpreted as an MCD but was not a complete one. Although the number of internal dropouts for the 26 predefined outcomes was low, several respondents did not answer the open-ended question and some interviewed healthcare professionals found it hard to think of outcomes without having any experience. This might suggest that the Euro-MCD Instrument is difficult to complete for healthcare professionals who are completely uninformed about and unaware of MCD. This will be taken into account in future studies involving the Euro-MCD Instrument.

Conclusion

This study provides information about outcomes perceived as important by professionals prior to participating in MCD, which may be relevant for evaluating MCD. Future research may assess the actual experiences of healthcare professionals with MCD and potential changes in outcomes perceived as important after having experienced MCD. The results of this study may contribute to the implementation of MCD within healthcare as it shows which outcomes are deemed important by the target group. Implementation can be improved by taking into account the needs of the professionals. It may also stimulate facilitators to investigate the expectations of participants in MCD meetings, to identify the extent to which these are in line with theoretically defined goals. This is not to say that outcomes perceived as important by participants are a priori the most relevant. It does mean that theoretical perspectives on core outcomes of MCD and practical views on what MCD should bring about should be compared and integrated to develop a more refined conception of the most important outcomes of MCD and CES in healthcare organizations.

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3

Important outcomes of moral case deliberation: a Euro-MCD field survey of healthcare professionals' priorities

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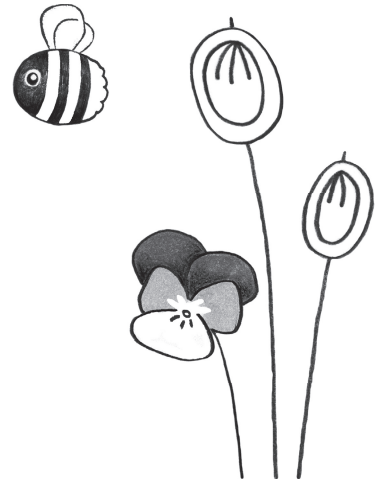

ABSTRACT

***Background*:** There is a lack of empirical research regarding the outcomes of such clinical ethics support methods as moral case deliberation (MCD). Empirical research in how healthcare professionals perceive potential outcomes is needed in order to evaluate the value and effectiveness of ethics support; and help to design future outcomes research. The aim was to use the European Moral Case Deliberation Outcome Instrument (Euro-MCD) to examine the importance of various MCD outcomes, according to healthcare professionals, prior to participation.

Methods: A North European field survey among healthcare professionals drawn from 73 workplaces in a variety of healthcare settings in the Netherlands, Norway and Sweden. The Euro-MCD Instrument was used.

Results: All outcomes regarding the domains of moral reflexivity, moral attitude, emotional support, collaboration, impact at organisational level and concrete results, were perceived as very or quite important by 76%-97% of the 703 respondents. Outcomes regarding collaboration and concrete results were perceived as most important. Outcomes assessed as least important were mostly about moral attitude. 'Better interactions with patient/family' emerged as a new domain from the qualitative analysis. Dutch respondents perceived most of the outcomes as significantly less important than the Scandinavians, especially regarding emotional support. Furthermore, men, those who were younger, and physician-respondents scored most of the outcomes as statistically significantly less important compared with the other respondents.

Conclusions: The findings indicate a need for a broad instrument such as the Euro-MCD. Outcomes related to better interactions between professionals and patients must also be included in the future. The empirical findings raise the normative question of whether outcomes that were perceived as less important, such as *moral* reflexivity and *moral* attitude outcomes, should still be included. In the future, a combination of empirical findings (practice) and normative reflection (theories) will contribute to the revision of the instrument.

BACKGROUND

Healthcare professionals in various settings are confronted by different ethical challenges (Rasoal et al. 2016; Tonessen et al. 2017). In order to deal with these, several types of clinical ethics support services have been developed (Molewijk et al. 2015). The services are usually conducted through clinical ethics committees, clinical ethics consultation, or moral case deliberation (MCD) (Molewijk et al. 2015). Increased awareness, through training programs, research, publications, conferences and professional networks related to clinical ethics support, indicate that clinical ethics support is gaining prominence as an important professional domain (Molewijk et al. 2017).

In Europe, MCD has received much attention in recent years (Dauwerse et al. 2014) and may be used as an umbrella term (Svantesson et al. 2014) for ethics rounds (Svantesson et al. 2008; Silén et al. 2016), ethical case reflection (Bartholdson et al. 2014), and ethics reflection groups (Lillemoen & Pedersen 2015). Using MCD as an umbrella term implies that MCD can represent several methods and is not a standardised method. However, common denominators across all methods have been agreed upon: it is a facilitator-led collective moral inquiry into a concrete moral question connected to a real case made by healthcare professionals in their practice (Molewijk et al. 2011; Svantesson et al. 2014).

Despite existing evaluation (Kälvemark Sporrong 2007; Svantesson et al. 2008; Weidema et al. 2013; Lillemoen & Pedersen 2015; Hem et al. 2015) and implementation research on MCD (Weidema et al. 2016), little is known about which outcomes are found to be important to MCD-participants. This knowledge is normatively relevant, as MCD is designed to *support* healthcare professionals. Hence, it can improve the way in which the ethics service is tailored. Nota bene, in addition, there is a lack of clarity and consensus on how we define MCD outcomes and which MCD outcomes one *should* aim for (Pfäfflin et al. 2009), i.e., there is a lack of conceptual and normative clarity. In order to stimulate both the conceptual and normative discussion of these outcomes, the Euro-MCD instrument was developed to measure how healthcare professionals value and experience outcomes (Svantesson et al. 2014). The instrument was primarily designed to be used as a tool for evaluating MCD-sessions, but also to assist in tailoring MCD to its users, while acknowledging contextual and demographic differences. As we wanted to discover which possible outcomes are perceived to be most important by its users, the Euro-MCD instrument includes a broad range of various outcomes. The included outcomes were selected after a thorough process using a literature review, a Delphi

panel, and content validity testing (Svantesson et al. 2014). As such, in the instrument, we do not normatively define key outcomes for MCD or which outcomes should be more important, neither do we suggest that all these outcomes will, can and should appear. In fact, one of the key motivations for conducting this study was that so many MCD outcomes have been suggested without sufficient empirical evidence to support them.

Thus, the main aim of the present study was to use the Euro-MCD instrument to examine the importance of various Moral Case Deliberation outcomes, according to healthcare professionals, prior to participation. An additional aim was to compare differences among healthcare professionals across three European countries. Based on these empirical findings and those of other future Euro-MCD publications, we will reflect elsewhere upon the normative question relating to which MCD outcomes *should* be included in the new Euro-MCD instrument.

METHOD

Design

We conducted a descriptive and comparative field survey employing both quantitative and qualitative methods. The results presented here form part of the larger observational Northern European evaluation project on MCD (Rasoal et al. 2016; De Snoo-Trimp et al. 2017; Svantesson et al. 2018; Heidenreich et al. 2018), studying different existing MCD practices.

Sampling

A convenience sampling method according to observational design was applied, recruiting workplaces in Northern Europe: the Netherlands, Norway and Sweden. These workplaces, to our knowledge, had planned to implement MCD in the near future due to an expressed need for reflection. Heads of departments or teams were approached first by phone, then through a formal invitation letter. In the Netherlands, heads of institutions or MCD facilitators contacted us (Molewijk B, VUmc) because they were planning to implement MCD. In Sweden, managers of workplaces in provinces in Middle Sweden with access to MCD-facilitators that had communicated a need for ethical reflection were approached. In Norway, managers in provinces included in a governmental project to implement ethics reflection in community care were also approached. In addition, one care unit in somatic care was included.

In total, 73 workplaces in 16 provinces within four healthcare settings were recruited (Table 1). Healthcare professionals in these workplaces who had no prior MCD experience were invited to participate.

Data collection and measures

Data were collected through a survey, distributing the Euro-MCD Instrument (Svantesson et al. 2014) to either all healthcare professionals on the workplace or the professionals selected to participate in MCD, prior to the start of MCD being set up. First, researchers provided verbal information about the study during workplace meetings. Second, the instrument was distributed to individual healthcare professionals, either on paper in their pigeonholes, or electronically by e-mail or through a web-based questionnaire, depending on the preferences of each workplace. Two reminders were sent. When distributed, the instrument was accompanied by an information letter about the voluntary nature of responding, and informed consent was obtained by virtue of them having responded. Responses were handled confidentially. The healthcare professionals were also briefly informed about the common denominators for MCD (see Introduction) and were given the following definition for an ethically difficult situation: '*a situation in which you experience unease or uncertainty about what is right or good to do or there is disagreement about what should be done'* (Svantesson et al. 2014).

Table 1. Demographic data

Respondents T.0 Euro-MCD Instrument		*n* (%)	Netherlands	Sweden	Norway
Respondents	Total	703	331	275	97
Gender	Female	564 (81)	227 (69)	250 (91)	89 (92)
	Male	133 (19)	101 (31)	25 (9)	8 (8)
Age	Median (range)	44 (20-68)	42 (22-65)	47 (21-65)	44 (20-68)
Profession N (%)	Nurses	344 (49)	163 (49)	135 (49)	46 (47)
	Nurse assistants	119 (17)	4 (1)	73 (27)	42 (43)
	Therapists*	113 (16)	88 (27)	23 (8)	2 (2)
	Doctors	50 (7)	26 (8)	23 (8)	1 (1)
	Managers**	44 (6)	22 (7)	17 (6)	5 (5)
	Others***	32 (5)	27 (8)	4 (2)	1 (1)
Prof. experience	Median years (range)	17 (0-50)	15 (0-43)	20 (1-45)	16 (1-50)
Workplaces/ provinces N		73/16	34/7	16/4	23/5
Healthcare settings workplaces N; respondents N (%)	Community care services	28;137 (19)	1;9 (3)	5;35 (13)	22;93 (96)
	Somatic hospital care	16;343 (49)	4;99 (30)	11;240 (87)	1;4 (4)
	Psychiatric care	22;174 (25)	22;174 (52)		
	Mentally disabled care	6;49 (7)	6;49 (15)		

** Including social workers, physiotherapists, psychologists and spiritual caregivers **Including policy makers and heads of departments **Including interns, trustees, secretary, clients, researchers and volunteers*

The Euro-MCD Instrument (Svantesson et al. 2014) contains 26 possible MCD outcomes, sorted into the following six domains: 'Enhanced emotional support', 'Enhanced collaboration', 'Improved moral reflexivity', 'Improved moral attitude', 'Impact at organisational level', and 'Concrete results'. In this study, the instrument was administered *before* the healthcare professionals participated in MCD, and asked about their perceived importance of the 26 outcomes. The instrument was also distributed *after* their participation in a series of MCDs and the results of that survey will be reported elsewhere (asking also about experienced outcomes). In this study, the following three questions were used:

1) Open-ended question: 'Please formulate in your own words 3 to 5 outcomes that you consider important to reach in order to support you and your co-workers in managing ethically difficult situations in everyday clinical practice' (instructed not to read ahead);
2) Closed questions for each of the 26 predefined outcomes: 'How important is the outcome to you?' A four-point adjective response scale was used: 'Not important', 'Somewhat important', 'Quite important' and 'Very important'. The option 'Cannot take stand' was also offered.
3) Fixed-choice question: 'Finally, please list 5 of the above outcomes that you consider as *most* important (of the 26 outcomes)'.

The instrument was translated into Dutch, Norwegian and Swedish (Svantesson et al. 2014).

Analysis

Quantitative analysis

The ratings of the 26 predefined outcomes and responses to the fixed-choice question were analysed descriptively using Statistical Package for Social Sciences (SPSS), version 22. $\chi 2$ tests were used to test for differences of proportions (percentages) between countries, healthcare settings, professions, years of experience, genders and ages. To assess the independent influence of these variables, each was included in both a univariate- and a multivariable logistic regression analysis. Odds ratios are presented in the Appendix. For this calculation, the response options were dichotomized into 'not/somewhat important' and 'quite/very important'.

Qualitative analysis

For analysis of the open-ended responses to question 1, the researchers, MS and BM, experienced in qualitative data analysis, steered the analysis process, guided by the

framework analysis method (Gale et al. 2013) (steps 3-6) (see Table 2). The frequencies of the categorised meaning-units (i.e., words or phrases that describe one outcome) were computed for each country and compared.

Table 2. The categorisation process of the framework method (Gale et al. 2013).

Stage 3: Coding	MS and BM coded independently one-third of the Swedish and Dutch responses, respectively. The responses were sorted into one or more meaning-units and coded with help from the software program NVivo into categories and domains.	MS, BM
Stage 4: Developing a working analytical framework*	Comparison of the two independent codings, then merging and re-categorisation until agreement, developing a preliminary analytical framework. A working analytical framework was created departing from previous categorisation, resulting in seven domains and 82 subcategories.	MS, BM All authors
Stage 5: Applying the analytical framework	The authors from each country continued deductively to sort the rest of the open responses to the categories in the working analytical framework.	All authors
Stage 6: Charting data into the framework matrix	In this analysis charting implied quantification of data, because of the shortness of the responses. The categories from the three countries were quantified by computing frequencies.	MS
Additional step: Revision and final agreement†	Discussions of reformulations of categories and of categorisation as well as comparisons between the countries until final agreement.	All authors

** Analysis meeting Örebro 2014 and Amsterdam 2015 † Analysis meeting Oslo 2015*

RESULTS

In total, 703 healthcare professionals in Northern Europe returned responses to the Euro-MCD Instrument (Table 1), before participating in MCD. Swedish response rate was 85% and Norwegian 23% (workplaces varied in size from 7 to 93). In the Netherlands, the number of distributed questionnaires was not registered, but the estimated response rate is 65% (average 15 employees per workplace, with 34 workplaces, the response rate becomes 331/15x34). The respondents were predominantly women. There were marked differences regarding inclusion of healthcare settings between the countries. In the Netherlands, the healthcare domain of psychiatry dominated; in Sweden, hospital care, and in Norway, community care. Thus, Sweden and Norway included more nurse assistants, while, in the Netherlands, there were more therapists, men, and younger respondents.

Outcomes perceived to be the most important

Based on the quantitative analysis, all 26 outcomes in the Euro-MCD Instrument were perceived as either quite or very important by 76%-97% of the respondents (Table 3). There were missing responses (including the option 'Cannot take stand') averaging 14 missing responses for each item (2%) (Table 3). Outcomes in the domain 'Enhanced collaboration' were rated as most important, comprising more open communication, better mutual understanding, and mutual respect amongst co-workers. The other prominently important outcomes concerned the domain 'Concrete results', covering items about enabling decisions on concrete actions and finding more courses of actions in order to manage the ethically difficult situation. Outcomes assessed as least important comprised mostly outcomes in the domain 'Improved moral attitude', such as listening more seriously to others' opinions, and having the courage to express an ethical standpoint (Table 3). The results of the fixed-choice question about the five most important outcomes (perceived from the list of 26) are also presented in Table 3 (bold items) and these correspond with the above-mentioned results concerning most important outcomes.

Differences in perceptions among respondents

The Scandinavians perceived 23 of the 26 outcomes as significantly more important compared with the Dutch respondents (Table 3). Professionals working in community or disabled care services, nurse assistants, women, older respondents and those with more years of professional experience, were significantly more likely to perceive most of the outcomes as quite or very important. Respondents working in psychiatry, physicians and men, perceived most of the 26 outcomes as significantly *less* important as the other groups (but still found most outcomes quite important) (Table 4).

Table 3. Perceptions of importance of the Euro-MCD predefined outcomes, ordered on basis of importance.

Possible outcomes of MCD **(bold** marked outcomes also most often mentioned as one of the five most important outcomes.)
Outcomes viewed as quite or very important by ≥ 90% of the respondents
More open communication among co-workers
Better mutual understanding of each other's reasoning and acting
Enables me and my co-workers to decide on concrete actions in order to manage the ethically difficult situations
Develops my skills to analyse ethically difficult situations
I see the ethically difficult situations from different perspectives
I and my co-workers become more aware of recurring ethically difficult situations
Find more courses of actions in order to manage the ethically difficult situation
Enhances mutual respect amongst co-workers
Outcomes viewed as quite or very important by < 90% of the respondents
Consensus is gained amongst co-workers in how to manage the ethically difficult situations
Enhances possibility to share difficult emotions and thoughts with co-workers
Contributes to the development of practice/policies in the workplace
Develops my ability to identify the core ethical question in the difficult situations
I and my co-workers manage disagreements more constructively
I gain more clarity about my own responsibility in the ethically difficult situations
Strengthens my self-confidence when managing ethically difficult situations
I and my co-workers examine more critically the existing practice/policies in the workplace/organisation
Increases my awareness of the complexity of ethically difficult situations
Greater opportunity for everyone to have their say
I become more aware of my preconceived notions
Outcomes viewed as quite or very important by ≤ 80% of the respondents
Enables me to better manage the stress caused by ethically difficult situations
Increases awareness of my own emotions regarding ethically difficult situations
I understand better what it means to be a good professional
I feel more secure to express doubts or uncertainty regarding ethically difficult situations
Enhances my understanding of ethical theories (ethical principles, values and norms)
I listen more seriously to others' opinions
Gives me more courage to express my ethical standpoint

** = p < 0.05 ** = p< 0.01 *** = p< 0.001 ^= missing >25 respondents †= also significant in multivariable logistic-regression*

Domain	Percentage of respondents indicating 'Quite' or 'Very' important			
	Total population (N) %	Netherlands %	Sweden %	Norway %
Collaboration	(672) 97	94**	98	100
Collaboration	(663) 95	94	97	95
Concrete results	(638) 93	90†***	97	90
Moral reflexivity	(634) 92	88†**	94	95
Moral reflexivity	(634) 92	88***	95	96
Organisational	(625) 90	85†***	95	95
Concrete results	(620) 90	85†***	94	95
Collaboration	(609) 90^	82†***	99	92
Concrete results	(608) 88	86	89	90
Emotional support	(603) 88	83†***	94	89
Organisational	(600) 87	81†****	90	97
Moral reflexivity	(599) 87	83**	90	92
Collaboration	(596) 88	82†***	92	92
Moral attitude	(590) 86	79†***	92	93
Emotional support	(575) 84	74†***	93	92
Organisational	(571) 84	84	85	81
Moral reflexivity	(563) 82	72***	90	93
Collaboration	(560) 82	70†***	94	94
Moral attitude	(556) 81	69†***	91	94
Emotional support	(547) 80	67†***	92	87
Emotional support	(540) 79	66†***	91	87
Moral attitude	(544) 80^	70†***	90	88
Emotional support	(532) 78	68***	86	91
Moral reflexivity	(528) 76	73*	78	84
Moral attitude	(525) 80^	67†***	91	94
Moral attitude	(509) 76^	64†***	85	89

Table 4. Differences between subgroups regarding percentages of respondents rating the outcomes as quite important or very important.

Outcomes	HEALTHCARE DOMAINS			
	Psych-iatry	Somatic care	Comm. care	Mentally dis. care
ENHANCED COLLABORATION				
More open communication among co-workers	93**	98	99	96
Better mutual understanding of each other's reasoning and acting	90***	98**	96	96
Greater opportunity for everyone to have their say	66***	87**	94†***	84
I and my co-workers manage disagreements more constructively	83*	88	94*	88
Enhanced mutual respect amongst co-workers	81***	93*	95*	90
ENHANCED EMOTIONAL SUPPORT				
Enables me to better manage the stress caused by ethically difficult situations	66***	85**	89**	67*
I feel more secure to express doubts or uncertainty regarding ethically difficult situations	64***	80	90***	78
Enhances possibility to share difficult emotions and thoughts	79***	91*	92	90
Increases awareness of my own emotions regarding ethically difficult situations	68***	81	88***	76
Strengthens my self-confidence when managing ethically difficult situations	70***	86	94***	90
IMPROVED MORAL REFLEXIVITY				
Develops my skills to analyse ethically difficult situations	87*	90	98**	98
I see the ethically difficult situations from different perspectives	86***	94	96*	86
Increases my awareness of the complexity of ethically difficult situations	74**	83	92***	75
Enhances my understanding of ethical theories	73	73	85**	86
Develops my ability to identify the core ethical question in the difficult situation	80**	86	95**	94
IMPROVED MORAL ATTITUDE				
Gives me more courage to express my ethical standpoint	63***	80*	87**	63*
I listen more seriously to others' opinions	69***	81	92***	80
I gain more clarity about my own responsibility in the ethically difficult situation	76***	88	94**	88
I become more aware of my preconceived notions	67***	84	92***	83
I understand better what it means to be a good professional	72**	81	89**	80
CONCRETE RESULTS				
Consensus is gained amongst co-workers in how to manage the ethically difficult situations	90	89	90	86
Enables me and my co-workers to decide on concrete actions in order to manage the ethically difficult situations	84	93	93	94
Find more courses of actions in order to manage the ethically difficult situations	87	89	96**	92**
IMPACT ON ORGANISATIONAL LEVEL				
I and my co-workers examine more critically the existing practice/ policies	85	82	82	94
Contributes to the development of practice/policies in the workplace	79***	87	95**	90
I and my co-workers become more aware of recurring ethically difficult situations	83***	91	96**	92

*†= also significant in multivariable logistic-regression * = p < 0.0 ** = p< 0.01 *** = p< 0.001*

PROFESSIONS					GENDER		AGE		
Nurse ass.	Nurses	Physicians	Therapists	Managers	Female	Male	<39	40-49	>50
99	97	96	92†**	98	98 †**	92	94	97	98†**
97	97	88*	90**	98	97†***	88	94	96	96
96***	82	71*	77	79	86†***	69	76	85	86†**
92	89	78†*	84	90	89	83	83	89	90†**
100***	89	90	83**	93	92***	82	86	93	92**
95***	84**	60†***	62†***	74	84†***	63	74	83	83**
94***	76	57	75	81	82†***	62	75	78	81
96**	88	86	84	86	91†***	77	86	88	91
92***	79	69	67**	86	81**	69	71	81	85**
97***	84	69**	78*	83	88†***	67	83	84	85
96	90	88	90	100	92	88	92	91	91
96	91	88	90	96	94†***	83	90	91	94*
94***	83	68†**	73**	84	86†***	69	73	84	88†***
92†***	74	56†***	72	76	78*	70	69	77	83†**
95**	84*	84	85	98	89†**	79	80	89	90†**
89***	76	57†**	69	78	79***	63	71	79	76
96***	81	69*	65***	78	83**	70	70	84	87†***
97***	86	74†**	81	90	90†***	71	84	88	87
94***	80	61†***	79	88	85†***	67	78	84	81
96†***	92	59†***	76	76	83***	69	78	82	82
93	88	82	91	93	88	87	83	91	89
97	92	92	82	95	93	90	90	94	93
96*	89	82*	89	100	92**	83	88	91	91*
84	83	82	85	93	85	79	84	82	85
95**	88	76*	79**	93	89†***	76	81	88	90†**
98**	90	84	84*	98	93†***	80	91	88	91

The multivariable analysis appeared to provide better explanations and showed that differences († in Tables 3 and 4) could mostly be explained by the variable 'country' in 16/26 items, but also indicated that many of the differences could be explained by the variable 'gender' (14/26), and some by age or being a physician (or both, in 8/26 items). Regarding differences between healthcare settings, it appeared that, after adjustment for the variables of country, gender and 'professional group', none of these differences were statistically significant. See the Appendix for fuller description of the analyses (Odds Ratios).

Further subgroup analyses of healthcare settings and healthcare professions represented in more than one country, that is, within the group of registered nurses and within somatic hospital care, were conducted. This also showed country differences. In somatic hospital care, 21 outcomes were perceived as statistically significantly more important by the Swedes compared with the Dutch. The Scandinavian nurses perceived 18 outcomes as significantly more important as did the Dutch nurses.

The largest statistically significant differences of perceptions of importance between various subgroups concerned the items 'Greater opportunity to have a say'; 'I listen more seriously to others' opinions'; 'Strengthens my self-confidence when managing ethical difficult situations'; 'Enhances possibility to share difficult emotions and thoughts with co-workers'; and 'Enables me to better manage stress caused by ethically difficult situations'. These items mainly belong to the domains 'Enhanced emotional support', 'Enhanced Collaboration' and 'Improved Moral Attitude' (Tables 3 and 4). Considering these findings in light of the domains (Table 3 and 4), multivariable analysis showed that the differences in perception of importance of items in the domain 'Enhanced emotional support' could especially be explained by the variable 'country' (Sweden and Norway versus the Netherlands (p<0.001)). However, these differences could also be explained by the variable 'gender' (p<0.01 to p<0.001 for these items). Being Dutch was also an explanation for scores of less importance in the domain 'Improved moral attitude' (p<0.001), but this could also be explained by being a physician (p<0.05 to p<0.001). The domain 'Enhanced collaboration' was significantly more highly valued in Scandinavia, while some of the differences among the items within this domain could also be explained by being a woman or older. Outcomes in the domain 'Concrete results' revealed the least differences between all subgroups (Tables 3 and 4).

Old and new outcomes based on the open-ended responses

The qualitative analysis of the responses to the open-ended question, produced, in total, 82 different kinds of outcomes.

Outcomes related to the Euro-MCD instrument

At item level, all 26 predefined Euro-MCD items could be detected in the open-ended responses, containing one to 147 meaning-units. Eleven of the 26 items dominated the top-20 list of the most frequently mentioned outcomes (Table 5). These results are in agreement with the quantitative results (see Tables 3 and 5). Below, quotes from the open-ended responses for the three top outcomes are presented.

- 'More open communication among co-workers': '*More openness and honesty in the team*' (Dutch respondent), '*Dialogue, listen, understand. This applies to doctors, nurses, nurse assistants and managers*' (Swedish respondent), '*More open, honest and unbiased communication*' (Norwegian respondent)

- 'Better mutual understanding of each other's reasoning and acting': '*More consideration/taking into account what others think or see as a solution*' (Dutch respondent), '*Enhanced awareness on ward and for me what we do similarly and what we do differently, to open our eyes'* (Swedish respondent), '*Respect for differences in how to interpret situations*' (Norwegian respondent)

- 'I see the ethically difficult situations from different perspectives': '*Creating a different way of thinking to learn that there are also other solutions than only your own opinion'* (Dutch respondent), '*Interesting to hear the doctor's thinking about, for example, to resuscitate or not*' (Swedish respondent), '*Thinking holistically, by looking at the situation from different angles*' (Norwegian respondent)

New MCD outcomes (not fitting within outcomes of current Euro-MCD)

Fifty-six of the categorised outcomes could not be found in the predefined list of 26 outcomes. Nine of the new ones can be found in the top-20 list of most frequently categorised outcomes (Table 5). At domain level, most of the new outcomes could be categorised into the original domains in the Euro-MCD Instrument, particularly in the domain 'Enhanced collaboration':

- 'Enhanced sense of security in the team': '*To feel secure with each other in the team to be able to raise situations that haven't turned out well without anyone taking offence*' (Swedish respondent)

- 'Reach a common ground': '*Agreeing on a standpoint together, so that, in practice, you can easily estimate how a colleague would approach something*' (Dutch respondent)

- 'Better support from each other': '*to be able to 'think out loud' with colleagues in different situations and that they take time to listen*' (Norwegian respondent)

One new domain (not yet covered by the Euro-MCD domains)
One new domain emerged; 'Better interaction with patient/family' (Table 4), illustrated by the following items and quotes:

- 'Centre more on patients' wishes': '*to ensure that patients are treated individually*' (Norwegian respondent)

- 'Responding better to patients and family': '*Better ability and support when responding to aggressive patients and relatives'* (Swedish respondent)

- 'Better communication skills to manage patients and next-of-kin': '*Better dialogue with relatives, easier to explain how we think around palliative treatment*' (Swedish respondent)

Table 5. Most frequently categorized outcomes based on the qualitative analysis of the responses to the open-ended questions

Categories of outcomes (new outcomes* and domain in **bold**)	**Domain**	**N = meaning units**	**Netherlands** N (% of 331 respondents)	**Sweden** N (% of 275 respondents)	**Norway** N (% of 97 respondents)
More open communication among co-workers	Collaboration	147	39 (12)	77 (28)	31 (32)
Better mutual understanding of each other's reasoning and acting	Collaboration	117	56 (17)	47 (17)	14 (14)
I see the ethically difficult situations from different perspectives	Moral reflexivity	88	44 (13)	32 (12)	12 (12)
Consensus is gained amongst co-workers in how to manage the ethically difficult situations	Concrete results	57	19 (6)	35 (13)	3 (3)
Enhanced sense of security in the team*	Collaboration	55	31 (9)	23 (8)	1 (1)
Enhanced mutual respect amongst co-workers	Collaboration	41	31 (9)	-	10 (10)
Reach a common ground*	Collaboration	39	25 (8)	11 (4)	3 (3)
Better support from each other*	Collaboration	36	19 (6)	12 (4)	5 (5)
Enhances possibility to share difficult emotions and thoughts with co-workers	Emotional support	36	5 (2)	24 (9)	7 (7)
Greater opportunity for everyone to have their say	Collaboration	35	27 (8)	-	8 (8)
I feel more secure when managing ethically difficult situations	Emotional support	34	5 (2)	23 (8)	6 (6)
Contributes to the development of practice/policies in the workplace	Organisational level	32	23 (7)	-	9 (9)
Increases my awareness of the complexity of ethically difficult situations	Moral reflexivity	30	9 (3)	17 (6)	4 (4)
Develop ethical routines to prevent recurring difficult patient situations	Organisational level	29	-	29 (10)	-
A better grounded decision- making process in the patient situation*	Concrete results	25	20 (6)	5 (2)	-
Get to know where we stand in ethically difficult situations*	Collaboration	26	23 (7)	3 (1)	-
Centre more on patients' wishes*	**Interaction with pat/family†**	24	4 (1)	6 (2)	14 (14)
Responding better to patients and family*	**Interaction with pat/family†**	22	2 (0,6)	20 (7)	-
Enhanced work climate'	Collaboration	21	4 (1)	7 (2)	10 (10)
Better communication skills to manage patients and next-of-kin*	**Interaction with pat/family†**	19	-	19 (7)	-

**= new item †= new domain*

DISCUSSION

Surprisingly, the majority of the responding healthcare professionals in Northern Europe did not discriminate between outcomes, instead scoring *all* 26 predefined Euro-MCD outcomes as quite important or very important (prior to participation). This is essential to consider when reflecting on the results that Dutch healthcare professionals, men, those who were younger, and especially physician-respondents scored most of the outcomes as statistically significantly less important compared to the other respondents, yet still considered these as being somewhat important. With respect to the six domains of the Euro-MCD Instrument, the outcomes that were perceived as most important belong to the domains; 'Enhanced collaboration', and 'Concrete results'. One new domain emerged in the open responses: 'Better interaction with patient/family'.

The finding that most MCD outcomes were seen as important can be interpreted in different ways. First, it might be an indication of healthcare professionals' *need* for a variety of MCD outcomes: MCD is not seen as something with only one category of outcomes. This is consistent with other research about the need for ethical reflection (Dauwerse et al. 2011; Weidema et al. 2013). Another interpretation of the high importance awarded to almost all of the MCD outcomes can be that the respondents did not know exactly what kind of outcomes to expect. Therefore, it will be interesting to compare the results described in this paper with their judgments of importance *after* their experiences of participating in MCD.

Reflection on perceived important outcomes in relation to goals of MCD

The top outcomes of 'collaboration' and 'concrete results' fit well with the theoretical background of MCD (i.e., hermeneutics, pragmatism, and dialogical ethics) in which mutual dialogue and practical usefulness are key values of MCD (Abma et al. 2009; Widdershoven et al. 2010). The main outcomes considered as important were apparently the need to communicate and understand each other better, as well as to determine concrete actions to take. This finding is consistent with previous MCD evaluation literature (Svantesson et al. 2008; Weidema et al. 2013). The above-mentioned theories presuppose that, in order to learn what to do in an ethically difficult situation, a joint learning process is needed, in which everyone expresses and shares their viewpoint on what is morally right. The MCD participants become open towards each other's viewpoints and they get to know and understand each other better (Molewijk et al. 2008; Weidema et al. 2013). Hence, openness towards one another and better collaboration

are both important preconditions for and results of moral learning (Molewijk et al. 2008; Hem et al. 2015).

Furthermore, according to the theoretical background of MCD, MCD always starts with a moral challenge that is experienced in a concrete situation. It does not primarily aim at a theoretical insight or a final conceptual definition (Molewijk et al. 2008; Abma et al. 2009). Rather, MCD aims at learning to deal with ethically difficult situations (Svantesson et al. 2014), improving the quality of care, and learning about what is morally right, based on moral reflections and reasoning (Abma et al. 2009). Hence, the focus on reaching concrete results as an outcome of MCD fits well with MCD's normative aim of improving practices and learning through reflection about concrete situations (Molewijk et al. 2008; Abma et al. 2009).

Besides the top domains, the new domain revealed in the responses to the open-ended questions, 'Better interaction with patient/family', was an important reminder to not forget to focus on ethics support outcomes for the patient and for improving the quality of care as the basic goal of and justification for ethics support (Molewijk et al. 2008; Dauwerse et al. 2013; Weidema et al. 2013). The main reason why this domain was not included in the original six domains of the Euro-MCD was that these outcomes were not found in the extensive literature search and were not suggested in the Delphi panel as the basis for the development of the instrument (Svantesson et al. 2014). This is supported by the recent publication regarding the content of MCD in the Swedish component of the Euro-MCD project: establishing a responsible relationship with the vulnerable patient formed the basis for the participants' moral reasoning and can be understood as relational autonomy (Heidenreich et al. 2018). Furthermore, this study showed how relational-oriented ethics may form a foundation for principle-based moral reasoning during MCD. This element, and paying more attention to the direct impact of MCD on patient care, is something that we will consider when revising the Euro-MCD instrument.

Discrepancy between MCD goal and a priori perceived importance of outcome

An essential element of MCD is reflecting upon moral questions emerging from concrete experiences by means of moral reasoning and engaging in a joint critical moral inquiry (Abma et al. 2009). MCD has been described as aiming to improve moral competencies (Førde et al. 2008). It is therefore remarkable that the outcomes deriving from the domains of moral reflexivity (e.g., analysis skills) and moral attitude (e.g., courage) were not perceived as the most important outcomes. Perhaps the respondents did not

explicitly think about improving their moral competencies in the first place. In fact, if this explanation is accurate, this assumption fits well with the pragmatist approach of ethics teaching, that is, that moral competencies are learned by doing (e.g., while reflecting upon concrete cases).

Considering the differences between subgroups

Most of the differences in perceived importance between the subgroups (profession, healthcare setting, etc.) can be explained by the variables 'country' and 'gender'. However, some of the differences might also be explained by the variables 'age' and 'professional background'. Regarding professional background, the nurse assistants, who dominated Scandinavian community care, perceived most of the outcomes as significantly more important than the other professions. An explanation for this could be that nurse assistants in general have fewer opportunities for attending team meetings or educational activities, while at the same time being confronted with many ethically difficult situations in their daily work. The physicians found many outcomes significantly less important, but with large variation (56%–96%). This may be interpreted as their having a better confidence to discriminate between outcomes and/or simply valuing MCD less than other professions.

The finding that female respondents rated so many items higher than male respondents is surprising. It might be due to differences in perceived moral distress, as it could be assumed that experiencing a higher level of moral distress would contribute to a higher need for ethical reflection, and perceiving outcomes such as better stress management or feeling more self-confident as more important. In the literature, we found some evidence for gender differences in moral distress. Possible explanations have been provided by, for instance Lutzky and Knight (1994), who suggested that men and women experience similar levels of moral distress, but that men may be reluctant to acknowledge their distress or may not even be aware of it, leading to biased results when assessing moral distress by use of self-reporting questionnaires. More recently, this gender difference was found again in a study about experiencing moral distress among critical care nurses in the U.S.A. (O'Connell 2015). We could therefore say that the possible influence of gender differences in experiencing moral distress, or in their ways of completing questionnaires, was also observed in our study. However, the female respondents form the majority of the sample (81%) and the male respondents were mainly drawn from those who work in the Netherlands (Dutch), and who worked in psychiatry, as physicians, or as therapists. Therefore, the differences between gender might overlap with the differences between countries. But, because

of the low sample size of male respondents, we were not able to further disentangle this possible influence.

There are several possible explanations for why the variable 'country' showed large differences in ratings. First, there might be cultural differences regarding the rating across the countries, and one can only speculate about the reasons. One explanation might be that Swedes and Norwegians yearn for a forum for exchange and reflection, whilst in Dutch healthcare, various forums are more established (e.g., in psychiatry, where 53% of the Dutch respondents worked). A second explanation could be the different approaches to responding to self-reported questionnaires in the three countries. Jürges (2007) found that the Swedes are more likely to report good or better health than respondents in all other countries. This tendency of Swedes, and perhaps all Scandinavian respondents, might also have occurred in our study. Third, the mode of administration of the questionnaire might have caused some differences between countries. However, no major differences in answering questions have been found in recent overviews (Muehlhausen et al. 2015). Therefore, we think that, with regard to ratings of importance of outcomes of MCD, this might be less of an issue here.

Another possible explanation for these variations relates to the differences in performing MCD in the different countries. That the Swedes and Norwegians valued outcomes related to the domain 'Enhanced emotional support' to a higher degree than the Dutch is in line with results obtained from a previous Swedish study about what MCD-participants talked about during the MCDs linked to this project. A median of 29% of the spoken time was spent on reflections on the psychosocial work environment (Svantesson et al. 2018). This raises the normative question as to what degree emotional support and psycho-social reflection should be a core component of MCD outcomes. Within the theoretical understanding of MCD that adheres to an Aristotelian view on emotions, emotions can be seen as part of moral wisdom and should therefore be an element of MCD (Molewijk et al. 2011).

Finally, the data suggest that some of the differences could be explained by age. It seems that older respondents (>50) perceived many outcomes as being more important than the younger ones. An explanation might be that these older respondents have had more experience with difficult ethical situations and thus express a stronger need for engaging in ethical reflection.

Weighing empirical results versus normative thinking about MCD outcomes

It is only after collecting the perspectives of those who have engaged in MCD that the overall normative discussion on determining the appropriateness of MCD outcomes can begin. In this discussion, we, as authors, take a middle position in that we assume that neither theoretical viewpoints nor empirical results alone can determine what 'the' right MCD outcomes are. This means that, although respondents found outcomes relating to moral competencies (i.e., moral reflexivity and moral attitude) somewhat less important as compared to other Euro-MCD outcomes, they could still be considered as important, given the fact that ethicists and MCD-facilitators argue that MCD *aims* at, among other aims, fostering moral competencies (Metselaar et al. 2015). Given the limited scope of this paper, we will elaborate on the integration of empirical findings from all Euro-MCD field studies and our normative reasoning about appropriate MCD outcomes in a future paper. Finally, we should not conflate the findings related to the importance of MCD outcomes with the aims of MCD; the outcomes and aims of clinical ethics support are not the same. Different groups and different countries seem to prefer different outcomes and different aims. For example, although not studied explicitly yet, we know anecdotally that ethicists state a more limited number of aims of clinical ethics support. Furthermore, their aims are usually focusing more on the *moral* question and *ethical* analyses of the reasoning and arguments used. Future research on these different ranges of aims and preferred outcomes of MCD may have implications regarding how to introduce MCD within health care institutions, how to train the future MCD facilitators, and on how to structure and steer the MCD sessions.

Strengths and weaknesses

A major strength in the study was the large number of responses enabling multivariable analysis. But a weakness was the heterogenic sampling of healthcare settings between the countries, which complicated comparisons between countries. However, the multivariable analysis provided evidence for healthcare setting not being associated with differences in responses. Furthermore, our main goal of the Euro-MCD project was to further develop the Euro-MCD Instrument and to find out whether MCD makes a difference at all. The heterogeneity of inclusion is in line with the observational design, meaning not interfering with the real world, i.e. the organisation of the MCD practices. However, in order to make a better generalisation, a larger field-study is needed with more even distribution of subgroups in the different countries as well as including countries outside Northern Europe. This will however be postponed until the instrument is revised.

The survey was organized differently in the three countries with regard to recruitment of potential respondents and to the format of the questionnaire (paper, web-based, email). This might have affected the response rate in Scandinavia, as the Norwegian was web-based without personal contact and in Sweden, the questionnaires were distributed besides in pigeonholes also on information meetings and reminders on the coffee room tables. Another reason of low motivation to respond might be that the Norwegian part was associated with the governmental project. However, as the results of perceived important outcomes were similar between Sweden and Norway, we interpret that the differences in response rate may not have influenced the result. In Sweden, there were more respondents but fewer workplaces included and in Norway the vice versa, which complement each other. Unfortunately, we don't know the exact response rate for the Netherlands, but the estimated response rate is in line with other questionnaire studies.

The finding that almost all of the outcomes were perceived as quite or very important might indicate both a weakness and a strength of the Euro-MCD instrument. A weakness is the lack of discrimination between items and a ceiling effect in the Scandinavian results. A strength would be the good validation of the instrument, particularly as both the qualitative and the quantitative analysis revealed more or less the same important outcomes. We are surprised by this result, as we purposively included all possible MCD outcomes with few normative preferences (Svantesson et al. 2014). The lower ratings of some items, such as those relating to 'courage to express my ethical standpoint', might imply a need for reformulation instead of deletion. A further weakness is the nature of open-ended questions, which cannot contribute with the same richness of information as qualitative interviews can.

Conclusions

Our findings indicate that, prior to participating in MCD, healthcare professionals have multiple priorities and perceive many outcomes of MCD as highly important. This indicates a need for a broad instrument, such as the Euro-MCD, but also the need to anchor the outcomes included in the instrument to ethical theory. Outcomes related to the interaction between healthcare professionals and patients and family will also be taken into account when revising the Euro-MCD Instrument.

The differences we found between countries and the complexity in understanding these, indicates that caution must be taken when making comparisons between international settings of MCD. The empirical findings also lead to another interesting question: should we delete items in the new Euro-MCD Instrument regarded as less

important while, for normative theoretical reasons, one could consider these items as essential to MCD? The empirical findings in this study will not only help to develop the Euro-MCD Instrument further, but can also be used to further discuss aims of clinical ethics support. Furthermore, the findings can be used by healthcare organisations when implementing MCD. Finally, although this study focused on MCD outcomes, we hope that these findings will inspire researchers planning evaluation of other clinical ethics support services.

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APPENDIX. Odds ratio for determinants for perceiving more or less importance for the MCD outcome compared with the other subgroups. Odds ratio (OR) were considered clinically relevant if OR<0.5 or >2 (except age, calculated for each year).

Determinants OR	**HEALTHCARE DOMAINS**				
Outcomes **ENHANCED COLLABORATION**	Netherlands vs Scandinavia	Psychiatric care vs other	Somaticcare vs others	Community care vs other	Ment. dis. care vs other
More open communication among co-workers	**0.29****	**0.32****	NS	NS	NS
Better mutual understanding of each other's reasoning and acting	NS	**0.27*****	**3.26****	NS	NS
Greater opportunity for everyone to have their say	**0.15**†*****	**0.26*****	1.68**	**3.99*****	NS
I and my co-workers manage disagreements more constructively	**0.40**†*****	0.58*	NS	**2.55***	NS
Enhanced mutual respect amongst co-workers	**0.14**†*****	**0.30*****	**2.03***	**2.18***	NS
ENHANCED EMOTIONAL SUPPORT					
Enables me to better manage the stress caused by ethically difficult situations	**0.21**†*****	**0.35*****	1.93**	**2.35****	**0.49***
I feel more secure to express doubts or uncertainty reg ethically diff. sit.	**0.31*****	**0.37*****	NS	**3.15*****	NS
Enhances possibility to share difficult emotions and thoughts	**0.37**†*****	**0.36*****	1.78*	NS	NS
Increases awareness of my own emotions regarding ethically diff. situations	**0.21*****	**0.45*****	NS	**2.11*****	NS
Strengthens my self-confidence when managing ethically difficult situations	**0.21**†*****	**0.31*****	NS	**3.61*****	NS
IMPROVED MORAL REFLEXIVITY					
Develops my skills to analyse ethically difficult situations	**0.43****	0.52*	NS	**4.96****	NS
I see the ethically difficult situations from different perspectives	**0.34*****	**0.40*****	NS	**2.79***	NS
Increases my awareness of the complexity of ethically difficult situations	**0.27*****	0.52**	NS	**2.91*****	NS
Enhances my understanding of ethical theories	0.69*	NS	NS	1.92**	NS
Develops my ability to identify the core ethical question in the diff. sit.	0.53**	**0.49****	NS	**3.29****	NS
IMPROVED MORAL ATTITUDE					
Gives me more courage to express my ethical standpoint	**0.29*****	**0.42*****	1.54*	**2.37****	0.53*
I listen more seriously to others' opinions	**0.18*****	**0.42*****	NS	**3.23*****	NS
I gain more clarity about my own responsibility in the ethically diff. sit.	**0.32**†*****	**0.36*****	NS	**2.98****	NS
I become more aware of my preconceived notions	**0.19**†*****	**0.32*****	NS	**3.06*****	NS
I understand better what it means to be a good professional	**0.26*****	0.53**	NS	**2.31****	NS
CONCRETE RESULTS					
Consensus is gained amongst co-workers in how to manage the ethic diff. sit.	NS	NS	NS	NS	NS
Enables me and my co-workers to decide on concrete actions in order to manage the ethically difficult situations	**0.47****	NS	NS	NS	NS
Find more courses of actions in order to manage the ethically diff. sit.	**0.34**†*****	NS	NS	**3.38****	**2.60****
ON ORGANIZATIONAL LEVEL					
I and my co-workers examine more critically the existing practice/ policies	NS	NS	NS	NS	NS
Contributes to the development of practice/policies in the workplace	**0.38**†*****	**0.43*****	NS	**3.33****	NS
I and my co-workers become more aware of recurring ethically diff. sit.	**0.28*****	**0.37*****	NS	**3.37****	NS

*† = also significant in multivariable logistic-regression NS= not significant p>0.05 * = p < 0.05 ** = p< 0.01 *** = p< 0.001*

	PROFESSIONS				GENDER/AGE	
	Nurse assistents vs other	Nurses vs other	Physicians vs other	Therapists vs other	Female versus male	Older age vs younger age
	NS	NS	NS	**0.31**†**	**0.27** †**	**1.05** †**
	NS	NS	**0.33***	**0.39****	**0.23*****	NS
	5.45***	NS	0.5*	NS	0.36†*****	**1.03****
	NS	NS	**0.45**†***	NS	NS	**1.03**†**
	+inf***	NS	NS	0.44****	0.40*****	**1.03****
	5.59***	1.68**	**0.35**†*****	**0.32**†*****	0.32†*****	**1.02****
	5.42***	NS	NS	NS	**0.35*****	NS
	3.21**	NS	NS	NS	**0.31**†*****	NS
	3.30***	NS	NS	0.48****	0.50****	**1.03****
	6.42***	NS	**0.40****	0.61*	**0.28**†*****	NS
	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	**0.31*****	**1.03***
	4.12***	NS	**0.43****	0.51****	**0.38*****	**1.04**†*****
	4.54†*****	NS	**0.36**†*****	NS	0.66*	**1.03**†**
	3.16**	0.64*	NS	NS	**0.46****	**1.03****
	3.06***	NS	**0.40**†****	NS	**0.44*****	NS
	8.16***	NS	0,51*	**0.38*****	0,50****	**1.03*****
	5.28***	NS	**0.41**†****	NS	**0.29**†*****	NS
	4.29***	NS	**0.32*****	NS	**0.37**†*****	NS
	6.16†*****	NS	**0.32**†*****	NS	**0.45*****	NS
	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS
	2.69*	NS	**0.45***	NS	**0.42****	**1.02***
	NS	NS	NS	NS	NS	NS
	3.30**	NS	**0.45***	**0.49****	**0.39**†*****	**1.03**†**
	4.95**	NS	NS	0.51*	**0.31*****	NS

4

Field-testing the Euro-MCD Instrument: Important outcomes according to participants before and after moral case deliberation

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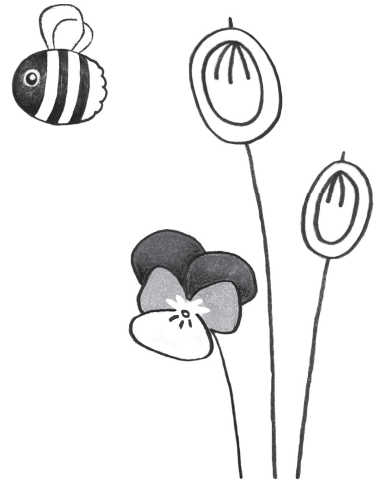

ABSTRACT

Introduction: Ethics support services like moral case deliberation (MCD) intend to support healthcare professionals in ethically difficult situations. To assess outcomes of MCD, the Euro-MCD Instrument has been developed. Field studies to test this instrument are needed and have been conducted, examining important outcomes before MCD participation and experienced outcomes. The current study aimed to 1) describe how participants' perceive the importance of MCD outcomes *after* MCD; 2) compare these perceptions with those *before* MCD participation; and 3) test the factor structure of these outcomes.

Methods: Swedish, Norwegian and Dutch healthcare professionals rated the importance of outcomes in the Euro-MCD Instrument after four and eight MCDs. Ratings were compared with those before MCD participation using paired and independent samples t-tests. The factor structure was tested using exploratory factor analyses.

Results: After four and eight MCDs, 443 respectively 247 respondents completed the instrument. More than 69% rated all MCD outcomes as 'quite' or 'very' important, especially outcomes from Enhanced collaboration, Improved moral reflexivity and Improved moral attitude. Significant differences for 16 outcomes regarding ratings before and after MCD participation were not considered meaningful. Factor analyses suggested three categories, which seemingly resemble the domains Improved moral reflexivity, Enhanced collaboration and a combination of Improved moral attitude and Enhanced emotional support.

Conclusions: After participation in MCDs, respondents confirmed the importance of outcomes in the Euro-MCD Instrument. The question on perceived importance and the categorization of outcomes need reconsideration. The revised instrument will be presented elsewhere, based on all field studies and theoretical reflections.

BACKGROUND

In the past decades, ethics support services have rapidly been developed in many healthcare settings and institutions (Molewijk et al. 2017). These services aim to support healthcare professionals in dealing with ethical dilemmas and situations in which they are uncertain or disagree about what good care would entail. In several European healthcare settings, this support is provided in the form of moral case deliberations (MCD), in which participants jointly elaborate on an ethically difficult situation under guidance of a facilitator (Molewijk et al. 2008). The increasing implementation of MCD gives reason to study what outcomes MCD leads to. Does it – according to its goals – indeed support healthcare professionals in dealing with ethically difficult situations, and in what way? Insights in how healthcare professionals – the actual end-users – benefit (or not) from participation in MCD is needed to further improve the MCD as a supportive service for them and to show its value and quality to healthcare organizations that want to implement it (Craig & May 2006; Wäscher et al. 2017; Schildmann et al. 2019). As stated by Craig and May (2006), there is a need for evaluation research notwithstanding the inherent and theoretical benefit of CES: 'As bioethicists, we are well aware of the theoretical goods such [CES] services might achieve, but should insist on evidence regarding the effectiveness of ethics consultation relative to these goods'.

Several evaluation studies showed – in general – positive results (Weidema et al. 2013;2015; Hem et al. 2015; Lillemoen & Pedersen 2015; Silén et al. 2015; Janssens et al. 2016; Seekles et al. 2016; Spijkerboer et al. 2017; Bartholdson et al. 2018; Haan et al. 2018; De Snoo-Trimp et al. 2019). These studies all focused on the satisfaction of healthcare professionals regarding the sessions themselves as well as their experiences beyond MCD in daily practice, with use of self-reported questionnaires, interviews and focus groups (Haan et al. 2018). For instance, in the study by Bartholdson et al. (2018), participants of ethics case reflection sessions (similar to MCD) were interviewed about enablers and barriers for clarifying perspectives, based on their experiences from attending the sessions. In another study (Weidema et al. 2013), healthcare professionals completed an evaluation questionnaire after each MCD session in which they had to rate the quality of the session and related elements of the session like atmosphere and relevance of the moral issue. In the review by Haan et al. (2018), empirical evidence for impact of MCD was systematically studied. They concluded that, in the included studies, 'most reported changes were considered positive'. Notwithstanding the positive findings, evaluation research in MCD and other types of clinical ethics support is still an underdeveloped area, as only few systematic comparable research studies have been done and only few structural evaluation tools exist (Haan et al. 2018; Schildmann

et al. 2019). Schildmann et al. (2019) recently described that, despite the increasing attention for quality of CES services, 'there has been a paucity of evidence on the outcomes of CES [services], and considerable controversy regarding the contribution of CES [services] to clinical practice'. Hence, there is a need for thorough and systematic research on methods for MCD evaluation.

In this evaluation research, it is important to give attention to the perspectives of participants. In the end, they are the users of this CES service. It would make no sense – for instance – to evaluate such a service only based on what clinical ethicists or managers would consider as important outcomes, because it might well be that a CES service leads to these outcomes while healthcare professionals might still not feel supported in their daily morally-challenging practice. Information about what outcomes participants define as important could further be used to tailor the implementation and the content of the CES service to participants' needs and expectations. Craig and May (2006) already warned for the danger of evaluating CES with inappropriate criteria like objective and predetermined standards or solely satisfaction rates. A bottom-up approach to evaluation involving active involvement of relevant stakeholders has been recommended (Schildmann et al. 2013; Wäscher et al. 2017). Therefore, we are interested in input from MCD participants working in healthcare practice here: how do they think about the importance of (possible) outcomes of MCD? As a response to the needs for systematic CES evaluation research, and the lack of focus on participants' perspectives on outcomes in the field of MCD, the Euro-MCD Instrument was developed (Svantesson et al. 2014).

The Euro-MCD Instrument

The Euro-MCD Instrument aims to measure outcomes of MCD by presenting 26 possible outcomes and assessing *perceptions of importance* and self-reported *experiences* of these outcomes during the sessions and in daily practice according to participants (Svantesson et al. 2014). It further contains an open question asking for possible important outcomes according to the respondents and a question to rank the five most important outcomes from the list. The instrument was developed in a comprehensive and systematic process including literature review, a Delphi expert-panel from various countries and content validity testing in the Netherlands, Norway and Sweden. The developers considered participants' perceptions of importance as an essential step in further validating the instrument: 'the specific context should have a say in which specific goals and outcomes of MCD are important' (Svantesson et al. 2014). For this, further validation in field studies was said to be needed.

Since 2014, several field studies have been conducted in Sweden, Norway and the Netherlands, using the Euro-MCD Instrument to assess what outcomes healthcare professionals perceive as important before participation in MCD (De Snoo-Trimp et al. 2017; Svantesson et al. 2019) and what outcomes they experience during the sessions and afterwards in daily practice (De Snoo-Trimp et al. 2019). In the latter study, factor analyses were performed to examine which outcomes highly correlate with each other and can be considered one domain.

However, the factor structure of MCD outcomes regarding their perceived importance has not yet been examined. This is needed to gain additional insight in possible categorization of outcomes, because correlations among the various outcomes might be different when respondents rate importance of outcomes instead of whether (or not) they experienced the outcomes. In the Euro-MCD Instrument, the 26 possible outcomes were categorized into six domains: 1) Enhanced emotional support; 2) Enhanced collaboration; 3) Improved moral reflexivity; 4) Improved moral attitude; 5) Impact on organizational level and 6) Concrete results. This categorization was based on theoretical thinking by the Euro-MCD research team and the Delphi panel (Svantesson et al. 2014). It is important to get empirical evidence about the structure of the data and explore meaningful dimensions. Furthermore, factor analysis informs about possible item reduction, i.e. deletion of outcomes which do not correlate with any other outcomes (De Vet et al. 2011).

To contribute to further validation of the Euro-MCD Instrument, the current study has three aims: 1) to examine how MCD participants perceive the importance of MCD outcomes *after* participating in MCD sessions; 2) to compare these perceptions with the perceived importance asked *before* participating in MCD sessions; and 3) to test the factor structure of these outcomes to further validate the instrument.

METHODS

Design

This quantitative study had a descriptive and comparative design.

Sampling and data collection

The Euro-MCD Instrument (Svantesson et al. 2014) was distributed among healthcare professionals in various healthcare settings in Sweden, Norway and the Netherlands. These healthcare professionals were recruited by convenience sampling of healthcare

institutions that planned to organize a series of four to eight MCDs on a monthly basis. They were invited to complete the instrument after participating in 4 (T.1) and after 8 (T.2) MCD sessions. The time between completing T.0 and T.2 was for most respondents approximately 9 months. The Euro-MCD Instrument was distributed at T.0 in 34 institutions, at T.1 in 30 and at T.2 in 25 institutions, as shown in the Appendix. The questionnaire was distributed on paper or by e-mail in Sweden and the Netherlands, and via a web-based questionnaire in Norway. A part of the responses to the instrument concerning perceived importance at T.0 and more details on data collection for T.0 have been published before (De Snoo-Trimp et al. 2017; Svantesson et al. 2019).

The Euro-MCD Instrument

As described in the Introduction, the Euro-MCD Instrument is a questionnaire containing 26 possible outcomes of MCD and asks for each one to rate the perceived importance and/or experience. The rating for perceived importance ('How important is the outcome to you?') concerns a 1-4 point Likert scale: 1 'Not important'; 2 'Somewhat important'; 3 'Quite important' and 4 'Very important'. The answer option 'Cannot take stand' can also be chosen. The results for the question on experience are published elsewhere (De Snoo-Trimp et al. 2019).

Analysis of the data

Ratings regarding perceived importance were descriptively analyzed using Statistical Package for Social Sciences (SPSS), version 22, to present percentages for each answer option at both T.1 and T.2, and T.0. To compare perceptions of importance after MCD participation (T.1/T.2) with perceptions before (T.0), ratings were compared with paired samples t-tests for individuals who completed both T.0, T.1 and/or T.2, considering a p-value of <0.05 to be statistically significant. Independent samples t-tests were also performed to compare the (independent) group of respondents who completed only T.0 with the group who completed only T.1 and/or T.2. As the ratings were not normally distributed, Wilcoxon signed-rank test and chi-square tests were used.

To examine the factor structure of the Euro-MCD Instrument, exploratory factor analyses were performed to search unprejudiced for correlations between the 26 Euro-MCD items. We looked at the Eigenvalues and scree plots, but also explored a possible classification of the data (the factor structure) that fits on the data both before (T.0) and after (T.1/T.2) MCD participation. Data from T.1 and T.2 (i.e. perceptions *after* participation) was merged in order to obtain sufficient power for comparing ratings before and after MCD participation and for the factor analyses.

We preferred to perform Exploratory Factor Analyses rather than Confirmatory Factor Analyses since the original six domains of items were loosely defined and we assumed that it was highly uncertain that these six domains would be confirmed by factor analyses. Therefore, we wanted to start as open as possible in looking for a factor structure that fits the responses of participants' perceptions of importance both before as well as after MCD participation.

From respondents who completed both T.1 and T.2 (N=129), their answers at T.2 were included in the analyses, because at T.2, they had gained more experience with MCD sessions, and based their assessment of items on a more extended and robust practice, thus covering also the sessions they had experienced when completing T.1.

Ethical considerations

Questionnaires were processed anonymously and participation was on a voluntary basis. At the start of the field study in Sweden, an advisory statement including "no objection to this study" was made by the Swedish Regional Ethical Review Board (dnr 2012/34). This statement was appropriate for Norway as well to perform the study, while the Norwegian Social Science Data Service was informed about the study. In the Netherlands, the Ethical Review Board was informed about the study and it was judged as not requiring further ethical review by law (2017.612).

RESULTS

The Euro-MCD Instrument was completed after participation in 4 MCD sessions (T.1) by 443 healthcare professionals and after 8 sessions (T.2) by 247 healthcare professionals. Before MCD participation (T.0), 756 professionals completed the instrument, of which 273 healthcare professionals completed it also after MCD participation (T.1 and/or T.2). The characteristics of respondents including distributions over countries and healthcare domains are presented in the Appendix. In this section, the perceptions on important items at T.1 and T.2 will first be described, continued by a comparison with perceptions at T.0 and the results regarding the factor structure of the items.

Table 1 Perceived importance of MCD outcomes before and after participation

	Question: How important is the outcome to you?		Not	Somewhat	Quite	Very	More or less important at T.1/T.2 than T.0?[2]
			% of respondents per answer option				
1	**Develops my skills to analyze ethical difficult situations**	before	1	8	47	44	LESS*^
		after	2	16	47	35	
2	**More open communication among co-workers**	before	0	4	34	62	LESS*^
		after	1	8	41	50	
3	**Consensus is gained amongst co-workers in how to manage the situation**	before	2	10	46	42	LESS*^
		after[1]	2	17	46	35	
4	Enables me to better manage the stress from the ethical situation	before	5	17	41	37	
		after[1]	4	20	44	32	
5	Contributes to the development of practice/policies in the workplace	before	1	13	49	36	LESS^
		after[1]	2	18	47	33	
6	Gives me more courage to express my ethical standpoint	before	4	21	47	28	
		after[1]	5	20	43	32	
7	I feel more secure to express doubts or uncertainty regarding difficult situations	before	4	19	43	34	
		after[1]	4	18	44	34	
8	**Better mutual understanding of each other's reasoning and acting**	before	0	6	40	54	LESS*^
		after	1	11	43	45	
9	**I see the situation from different perspectives**	before	0	9	44	47	LESS*^
		after[1]	1	15	47	36	
10	**I and my co-workers become more aware of recurring situations**	before	1	10	47	42	LESS^
		after[1]	1	16	46	37	
11	Increases my awareness of the complexity of the situation	before	2	17	46	35	
		after[1]	2	17	48	33	
12	Enhances my understanding of ethical theories	before	3	21	46	30	LESS^
		after[1]	5	26	43	26	
13	Enables to decide on concrete actions to manage the situation	before	1	6	44	48	LESS*^
		after[1]	2	16	48	34	
14	**Greater opportunity for everyone to have their say**	before	3	16	43	38	
		after[1]	1	16	45	38	

Table 1 Continued

	Question: How important is the outcome to you?		Not	Somewhat	Quite	Very	More or less important at T.1/T.2 than T.0?[2]
			% of respondents per answer option				
15	**Enhances possibility to share difficult emotions and thoughts**	before	0	13	44	43	
		after[1]	2	14	44	40	
16	**Find more courses of action to manage the situation**	before	0	10	46	44	LESS*^
		after	2	13	51	34	
17	**I listen more seriously to other's opinions**	before	3	18	43	36	
		after[1]	2	14	42	42	
18	Increases awareness of own emotions	before	3	19	44	34	
		after[1]	5	20	41	34	
19	Strengthens my self-confidence when managing difficult situations	before	3	14	44	39	LESS*
		after[1]	4	19	45	32	
20	Develops my ability to identify the core ethical question in difficult situations	before	1	12	48	39	LESS*^
		after[1]	3	19	47	31	
21	I and my co-workers examine more critically existing practice/ policies in workplace	before	2	14	50	34	LESS*^
		after[1]	3	23	46	28	
22	I and my co-workers manage disagreements more constructively	before	1	12	46	41	LESS*^
		after[1]	2	17	45	36	
23	I gain more clarity about own responsibility in difficult situations	before	1	13	47	39	LESS*^
		after[1]	2	20	44	34	
24	**Enhances mutual respect amongst co-workers**	before	2	9	40	49	LESS*^
		after[1]	2	14	40	44	
25	I become more aware of my preconceived notions	before	3	17	40	40	
		after[1]	4	18	42	36	
26	**I understand better what it means to be a good professional**	before	4	16	42	39	
		after[1]	3	16	41	40	

Bold items: top 10 of outcomes perceived by most respondents as quite or very important in either T.0 or T.1/T.2 data, or both

*[1]More than 10% of respondents answered the option 'Cannot take stand' or did not give any answer; [2]Only significant differences are shown: *Significant in independent samples t-test (Chi Square), with T.0 (N=515) vs T.1/T.2 (N=288), p-value <0.05; ^Significant in dependent samples t-test (Wilcoxon signed-rank test), with 273 respondents who completed T.0 and T.1 and/or T.2, p-value<0.05;*

1. Perceptions on important items after MCD participation

After participation in MCD, more than 69 percent of the healthcare professionals rated all items as 'quite' or 'very' important (see Table 1). On average, the answer option 'Not important' was chosen by only 3 percent per item (ranging from 0 to 5 percent) and the answer option 'Somewhat important' by 17 percent (ranging from 8 to 26 percent). The top-10 of items perceived as most important by most (82-91 percent) respondents included three items from the Euro-MCD domain Enhanced collaboration, namely 'More open communication among co-workers' (no. 2), 'Better mutual understanding of each other's reasoning and acting' (no. 8) and 'Enhances mutual respect amongst co-workers' (no. 24). Two items concerned the domain Improved moral reflexivity: 'Develops my skills to analyze ethical difficult situations' (no.1) and 'I see the situation from different perspectives' (no. 9). Another two items concerned the domain Improved moral attitude: 'I listen more seriously to other's opinions' (no. 17) and 'I understand better what it means to be a good professional' (no. 26). The remaining three items from these ten came from three different domains: Concrete results ('Find more courses of action to manage the situation', no. 16), Impact on the organizational level ('I and my co-workers become aware of recurring situations', no. 10) and Enhanced emotional support ('Enhances possibility to share difficult emotions and thoughts', no. 15).

2. Comparing ratings after participation with those before MCD participation

The ratings *after* participation are similar to those of respondents *before* participation, as also *before* participation the majority (more than 75 percent) of respondents rated all items as 'quite' or 'very' important and here even less respondents chose the option 'Not important' (average of 2 percent, ranging from 0 to 5 percent) or 'Somewhat important' (average of 13 percent, ranging from 4 to 21 percent). The top-10 of most important items at T.0 is similar to the top-10 at T.1/T.2 as just described, except for the items from the domain Improved Moral Attitude (no. 17 and 26). These items from the top-10 at T.1/T.2 did *not* appear in the top-10 of most important items at T.0. Instead, at T.0, two other items were highly rated: one from the domain Enhanced Collaboration ('I and my co-workers manage disagreements more constructively', no. 22) and another one from the domain of Concrete Results ('Consensus is gained amongst co-workers in how to manage the situation', no. 3).

Considering the differences in ratings of perceived importance before and after MCD participation, respondents perceived most (21 out of 26) items as *less* important at T.1/T.2 than at T.0, of which 16 changed significantly (see Table 1). These 16 items included all items from the domains Concrete results and Impact on the organizational

level, and almost all items from the domains of Improved moral reflexivity and Enhanced collaboration. Significant differences concerned a mean change of 7 percent in responses of 'quite' and 'very' important, ranging from 4 percent for the item 'More open communication among co-workers' to 10 percent for the item 'Concrete actions to manage the situation'. However, the majority of respondents (ranging from 70 to 91 percent) still rated these 16 items as 'quite' or 'very' important after participation in MCDs. For instance, the item 'More open communication among co-workers' was perceived as 'quite' or 'very' important by 96 percent before and by 91 percent after participation in MCD sessions. Hence, the significant differences in the importance ratings were not considered meaningful.

On average, 43 respondents (10 percent) and 30 respondents (12 percent) did not give any answer or chose the option 'Cannot take a stand' at T.1 respectively T.2. This number was 21 respondents (3 percent) at T.0. In Table 1, outcomes were marked where more than 10 percent of respondents did not complete the item or answered 'Cannot take stand'. In particular, three items had relatively high percentages for 'Cannot take stand' or missings on all moments (T.0, T.1 and T.2): 'I listen more seriously to other's opinions' (no. 17, 7% at T.0, 13% at T.1, 13% at T.2); 'I and my co-workers manage disagreements more constructively' (no. 22, 4% at T.0, 13% at T.1, 13% at T.2) and 'Better understanding of being a good professional' (no. 26, 4% at T.0, 13% at T.1, 17% at T.2).

3. Factor structure of importance ratings of Euro-MCD Instrument

The presumed categorization into six Euro-MCD domains was not found in the factor structures of both T.0 and T.1/T.2 data, since factor analyses in both T.0- and T.1/T.2-data suggested a classification into three factors (= categories) covering 16 out of 26 items. Yet, all items from the domain Improved moral reflexivity were associated with each other (i.e. found in the same factor), this was also the case for most items of the domain Enhanced collaboration. Items from the domain Improved moral attitude were associated with those from the domain Enhanced emotional support. Furthermore, the items from the domains of Concrete results and Impact on organizational level did not clearly cluster together.

Exploratory Factor Analysis on the 26 Euro-MCD items at T.0 revealed a model with three factors with Eigenvalues > 1. In this model, 24 out of 26 items clustered with other items. As shown in Tables 2 and 3, eight items correlated with each other in the first factor, ten items were correlated in the second factor and seven items were correlated in the third factor. The items 'Consensus is gained amongst co-workers in how to manage the situation' (no. 3) and 'I gain more clarity about own responsibility

Table 2 – Factor loadings of items Euro-MCD Instrument

Item		Responses before or after MCD participation:	Factor loading 1	2	3
1	Develops my skills to analyze ethical difficult situations	before		0.617	
		after		0.614	
2	More open communication among co-workers	before			0.700
		after			0.662
3	Consensus is gained amongst co-workers in how to manage the situation	before	-	-	-
		after			0.718
4	Enables me to better manage the stress from the ethical situation	before	0.658		
		after	-	-	-
5	Contributes to the development of practice/policies in the workplace	before		0.521	
		after			0.622
6	Gives me more courage to express my ethical standpoint	before	0.738		
		after			0.515
7	I feel more secure to express doubts or uncertainty regarding difficult situations	before	0.734		
		after			0.547
8	Better mutual understanding of each other's reasoning and acting	before			0.617
		after			0.667
9	I see the situation from different perspectives	before		0.587	
		after		0.574	0.566
10	I and my co-workers become more aware of recurring situations	before		0.588	
		after		0.585	0.550
11	Increases my awareness of the complexity of the situation	before		0.550	
		after		0.719	
12	Enhances my understanding of ethical theories	before		0.568	
		after		0.770	
13	Enables to decide on concrete actions to manage the situation	before		0.565	
		after			0.592
14	Greater opportunity for everyone to have their say	before			0.568
		after			0.559

Table 2 – Continued

Item		Responses before or after MCD participation:	Factor loading 1	2	3
15	Enhances possibility to share difficult emotions and thoughts	before			0.574
		after	0.639		
16	Find more courses of action to manage the situation	before		0.652	
		after		0.579	
17	I listen more seriously to other's opinions	before	0.571		0.509
		after	0.612		
18	Increases awareness of own emotions	before	0.718		
		after	0.648	0.524	
19	Strengthens my self-confidence when managing difficult situations	before	0.750		
		after	0.636	0.538	
20	Develops my ability to identify the core ethical question in difficult situations	before		0.622	
		after		0.655	
21	I and my co-workers examine more critically existing practice/policies in workplace	before		0.567	
		after	0.611		
22	I and my co-workers manage disagreements more constructively	before			0.627
		after	0.684		
23	I gain more clarity about own responsibility in difficult situations	before	-	-	-
		after	0.579	0.608	
24	Enhances mutual respect amongst co-workers	before			0.722
		after	0.679		0.515
25	I become more aware of my preconceived notions	before	0.549		
		after	0.586	0.518	
26	I understand better what it means to be a good professional	before	0.626		
		after	0.681		

Table 3 – Overview outcomes per factor compared to Euro-MCD domains

Factor		No. Item Euro-MCD Instrument	Euro-MCD domain^
1	Outcomes clustering in both T.0- and T.1/T.2- data	17. I listen more seriously to other's opinions*	4
		18. Increases awareness of own emotions*	1
		19. Strengthens my self-confidence when managing difficult situations*	1
		25. I become more aware of my preconceived notions*	4
		26. I understand better what it means to be a good professional	4
	only in T.0-data	4. Enables me to better manage the stress from the ethical situation	1
		6. Gives me more courage to express my ethical standpoint	4
		7. I feel more secure to express doubts or uncertainty regarding difficult situations	1
	only in T.1/T.2-data	15. Enhances possibility to share difficult emotions and thoughts	1
		21. I and my co-workers examine more critically existing practice/policies in workplace	5
		22. I and my co-workers manage disagreements more constructively	2
		23. I gain more clarity about own responsibility in difficult situations*	4
		24. Enhances mutual respect amongst co-workers*	2
2	Outcomes clustering in both T.0- and T.1/T.2-data	1. Develops my skills to analyze ethical difficult situations	3
		9. I see the situation from different perspectives*	3
		10. I and my co-workers become more aware of recurring situations*	5
		11.Increases my awareness of the complexity of the situation	3
		12. Enhances my understanding of ethical theories	3
		16. Find more courses of action to manage the situation	6
		20. Develops my ability to identify the core ethical question in difficult situations	3
	only in T.0-data	5. Contributes to the development of practice/policies in the workplace	5
		13. Enables to decide on concrete actions to manage the situation	6
		21. I and my co-workers examine more critically existing practice/policies in workplace	5
	only in T.1/T.2-data	18. Increases awareness of own emotions*	1
		19. Strengthens my self-confidence when managing difficult situations*	1
		23. I gain more clarity about own responsibility in difficult situations*	4
		25. I become more aware of my preconceived notions*	4

Table 3 – Continued

Factor		No. Item Euro-MCD Instrument	Euro-MCD domain^
3	Outcomes clustering in both T.0- and T.1/T.2-data	2. More open communication among co-workers	2
		8. Better mutual understanding of each other's reasoning and acting	2
		14. Greater opportunity for everyone to have their say	2
		24. Enhances mutual respect amongst co-workers	2
	only in T.0-data	15. Enhances possibility to share difficult emotions and thoughts	1
		17. I listen more seriously to other's opinions*	4
		22. I and my co-workers manage disagreements more constructively	2
	only in T.1/T.2-data	3. Consensus is gained amongst co-workers in how to manage the situation	6
		5. Contributes to the development of practice/policies in the workplace	5
		6. Gives me more courage to express my ethical standpoint	4
		7. I feel more secure to express doubts or uncertainty regarding difficult situations	1
		9. I see the situation from different perspectives*	3
		10. I and my co-workers become more aware of recurring situations*	5
		13. Enables to decide on concrete actions to manage the situation	6
	Not associated with any factor in T.0-data	3. Consensus is gained amongst co-workers in how to manage the situation	6
		23. I gain more clarity about own responsibility in difficult situations	4
	in T.1/T.2-data	4. Enables me to better manage the stress from the ethical situation	1

** Correlated at >1 factor*

^ Original Euro-MCD domains:

1 = Enhanced emotional support
2 = Enhanced collaboration
3 = Improved moral reflexivity
4 = Improved moral attitude
5 = Impact on organizational Level
6 = Concrete results

in difficult situations' (no. 23) did not associate with other items. The item 'I listen more seriously to other's opinions' (no. 17) correlated with items of both first and third factors.

Exploratory Factor Analyses on the T.1/T.2-responses constructed a model with two factors in which eight items were associated with both factors, which made it difficult to read this classification. As the T.0 factor analysis resulted in three factors, a forced three factor model was performed, to see whether the same three factors would arise. This classification is represented in Table 2, alongside the T.0-classification. In this model, 25 out of 26 items were correlated with other items and thus distributed into one of the three factors. The item 'Enables me to better manage the stress from the ethical situation' (no.4) did not associate with any item at any factors and seven items were still associated with items from more than one factor. Many items were distributed over the same factors when compared with the classification of the T.0-responses.

In total, 16 out of 26 items were correlated with each other according to the same classification at both T.0- as well as T.1/T.2-data. The final factor models with classification of items of T.0 and T.1/T.2, with reference to their Euro-MCD domain, are shown in Table 3. For every factor, items that associate with each other in both T.0- and T.1/T.2-data are named firstly. In the first factor, five items correlate with each other in the same way at both T.0 and T.1/T.2. This factor seems to involve the individual feelings, emotions and attitude as these items come from the Euro-MCD domains Enhanced emotional support and Improved moral attitude, indicating that these domains are related to each other. In the second factor, seven items are clustered similarly, which concern the awareness of and skills to identify, analyze and act upon ethically difficult situations. These items include all items from the domain of Improved moral reflexivity and two from the domains Concrete results and Impact on organizational level: 'Find more courses of action to manage the situation' and 'I and my co-workers become more aware of recurring situations'. This confirms the link among items of Improved moral reflexivity. This factor also indicates a need to reconsider the items in the domains Concrete results and Impact on organizational level as they might not be interpreted according to the intended meaning. The third factor seems to concern the teamwork among co-workers since it consists of 4 items, all from the Euro-MCD domain Enhanced collaboration. For this domain, the presupposed associations between items are also confirmed.

DISCUSSION

This paper described the importance of MCD outcomes according to healthcare professionals *after* MCD participation, a comparison with the perceived importance *before* MCD participation and results from the factor analyses on all rated outcomes in order to further develop the Euro-MCD Instrument.

Perceptions on importance – reconsidering the question in the Euro-MCD Instrument

Our study firstly showed that the majority of healthcare professionals, who completed the Euro-MCD Instrument, perceived all outcomes as quite or very important with only a very few respondents rating outcomes as not important. Outcomes perceived as most important mainly concerned the domain of Enhanced collaboration, including open communication, mutual understanding and respect, and outcomes referring to the domain Improved moral reflexivity, like being able to see the situation from various perspectives. These outcomes are in line with literature on underlying hermeneutical fundamentals of MCD and goals of CES in general (Widdershoven & Molewijk 2010; Porz et al. 2011; Metselaar et al. 2015): 'Clinical ethics [...] does support individual professionals in becoming more sensitive to moral issues and groups of professionals in dealing with difficult situations by improving communication and dialogical learning' (Widdershoven & Molewijk 2010). Furthermore, our findings are in line with previous evaluation studies (Weidema et al. 2013; Hem et al. 2015; Janssens et al. 2016; Silén et al. 2016; Haan et al. 2018). Based on 25 empirical studies on impact of MCD, Haan and colleagues (2018) concluded that most changes concerned the interaction and understanding of perspectives among healthcare professionals (i.e. collaboration) and the 'awareness of the moral dimension of one's work and awareness of the importance of reflection' (i.e. moral reflexivity).

Our study adds to existing literature on importance of MCD outcomes that also *after* participation in MCD, most respondents perceive outcomes as quite or high important. The finding that all outcomes were perceived as important by the majority of respondents *before* participating in MCD has also been described in previous Euro-MCD field studies (De Snoo-Trimp et al. 2017; Svantesson et al. 2019). A possible reason for these high rates at both T.0 and T.1/T.2 is that participants might have interpreted the question 'How important is the outcome to you?' in (at least) two ways: 'Do you feel the need for this outcome?' or 'Do you expect that MCD would lead to this outcome?. This might explain the high rates at T.0, where respondents just had high needs for certain MCD related outcomes or high expectations of what MCD could lead to. After

participation in MCD, respondents might perceive outcomes also as highly important to (still) stress the need for MCD related outcomes or to express that MCD indeed leads to these outcomes according to their expectations.

Our findings further showed that 16 outcomes were perceived as significantly less important *after* participation in MCD than *before*. A reason for this might be that respondents considered some outcomes as less relevant when learning what MCD really is, as they had no idea prior to participation, or because they had too high expectations beforehand and adjusted these afterwards. Although these changes are statistically significant, they are small and we do not consider them as meaningful and clinically relevant changes. Note that these outcomes were still perceived as quite or very important by the majority (>70%) of respondents. For instance, almost all outcomes from the domains of Improved moral reflexivity and Enhanced collaboration changed significantly but were still rated as the most important after MCD participation.

With regard to further development of the Euro-MCD Instrument, our findings indicate that the respondents – the healthcare professionals who take part in the MCD sessions – confirmed the importance and relevance of outcomes in the instrument and that they did not decisively differ in perceptions when asked for it (before or after MCD participation). Since respondents did not obviously discriminate among the presented outcomes, it would not be possible to tailor the content of MCD to prioritized outcomes or to weigh experienced outcomes against the prioritized outcomes. Hence, the usefulness of the question on perceived importance is not so clear anymore. We can therefore conclude that the question on perceived importance needs reconsideration and perhaps might even not be necessary in the future revision of the Euro-MCD Instrument.

Testing the factor structure of Euro-MCD items on perceived importance

Secondly, our study showed that the presupposed categorization of outcomes into six domains was not confirmed in the factor analyses, but that three distinct domains with 16 outcomes can be recognized. Yet, the Euro-MCD domains Improved moral reflexivity and Enhanced collaboration could be recognized in these factor analyses because most of their items were indeed associated with each other. These domains therefore seem to reflect separate constructs, either referring to individual moral skills (i.e. outcomes from Improved moral reflexivity) or group collaboration (i.e. outcomes from Enhanced collaboration). Furthermore, the domains Improved moral attitude and Enhanced emotional support seemed to refer to the same underlying construct as their outcomes associated with each other in the same category. This correlation between

outcomes of these two domains was also found in our other study concerning the factor structure of items regarding *experienced* MCD outcomes, both during the MCD sessions and beyond the MCD sessions in daily practice (De Snoo-Trimp et al. 2019). Considering this, we think that outcomes in these two Euro-MCD domains refer to individual virtues in which feelings and character aspects play a role, as we also suggested in our other study (De Snoo-Trimp et al. 2019). Lastly, the domains of Concrete results and Impact on organizational level were not clearly reflected in the factor models, indicating a need to reconsider and revise these domains. In these domains, some outcomes might have been unclear by having different meanings, resulting in a lack of correlations with other outcomes. For instance, the outcome 'Consensus is gained amongst co-workers in how to manage the situation' loaded on two factors. It might have been interpreted as a collaboration-outcome by respondents: '*we as a group* reached consensus', while it originally refers to Concrete results and was intended to assess the joint *ability to concretely manage* the situation. It might however be a question if consensus should be an outcome of MCD at all as it is not as such emphasized in literature on fundamentals and goals of MCD (Widdershoven & Molewijk 2010; Metselaar et al. 2015). Normative decisions (i.e. on what *should* be an outcome and why) need to be made in the further revision of these outcomes.

To conclude this part, the factor analyses from both this study and our other study on experienced MCD outcomes (De Snoo-Trimp et al. 2019) provided important insights in the associations of the Euro-MCD domains, to be used in the future revision of the instrument. Our finding that 16 outcomes showed similar correlations in both studies indicates that these outcomes are relevant, clear and stable as they are interpreted similarly when applied to different questions (i.e. regarding importance and experience), different moments (i.e. before and after participation) and different settings (i.e. during the MCD sessions and after the MCD sessions in daily practice).

Strengths and limitations

A strength of this study is that we performed the current and other field studies with an open mind, not being reluctant to criticize the original structure and outcomes, which is important when developing or revising measurement instruments (De Vet et al. 2011). Another strength of this study is the large and heterogeneous population in which we could test the Euro-MCD Instrument, as the instrument intends to be applicable in various settings and contexts in which MCD is done (Svantesson et al. 2014). A limitation however is that because of this heterogeneity (in countries, settings and professional backgrounds), the number of respondents per subgroup was too small to allow for subgroup comparisons (e.g. the Dutch versus the Swedish or Norwegian respondents).

We did not consider this as a major weakness, as comparisons of subgroups was not the aim of this study. Another limitation is the limited data on perceived importance after participation in 8 MCD sessions (T.2). Therefore, we had to merge T.1 and T.2 data to obtain sufficient power for the factor analyses. As a consequence, this study does not show if respondents change their perceptions of importance when their participation in MCD develops further (i.e. between 4 and 8 MCD sessions).

Relevance

This study contributes to the empirical evidence (De Snoo-Trimp et al. 2017;2019; Svantesson et al. 2019) for revising the Euro-MCD Instrument as a profound tool for measuring outcomes of MCD. Insight in participants' perceptions of importance is crucial in this process since, in the end, they are the ones who should benefit from MCD. MCD, like any CES service, aims to improve quality of care mainly by supporting healthcare professionals in dealing with ethically difficult situations. Input from participants themselves is therefore important to define suitable outcomes that they are able to recognize, value and experience.

Insight into the factor structure of responses is highly relevant for further development of the instrument. Validated dimensions (i.e. categories) of outcomes will facilitate future use of the instrument as results can be presented per domain instead of per outcome, and these results will also become more reliable if a domain is measured by multiple related outcomes. As already stated by the developers, it is important 'to know *if* there is a systematic pattern of MCD outcomes within the Euro-MCD' (Svantesson et al. 2014). Furthermore, since the Euro-MCD Instrument consists of a rather long list of 26 outcomes, one of the aims of the field study was to reduce the number of outcomes to make it a feasible and easy-to-use tool for practice (Svantesson et al. 2014). The current findings therefore form valuable information for reducing outcomes as it showed for instance that some outcomes showed hardly any correlation with any of the other outcomes and thus need thorough reconsideration.

Conclusion

This study confirmed that also after MCD participation, healthcare professionals gave high rates to importance of Euro-MCD outcomes. Findings indicate the need to reconsider whether we should still include the question on perceived importance in the revised Euro-MCD Instrument as well as the initial categorization of outcomes into six domains. Thus, the study contributes to empirical evidence for the revision of the instrument. In this revision process, empirical evidence will be combined with researchers' reflections, dialogues and theoretical justifications. This integration of

empirical evidence and theoretical reflections will ultimately determine what outcomes *should* be MCD outcomes and why, and how these should be included in the instrument. The revised Euro-MCD Instrument will be published elsewhere in the near future.

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APPENDIX - Characteristics respondents Euro-MCD Instrument			
	Before MCD (T.0)	After 4 MCDs (T.1)	After 8 MCDs (T.2)
Total N	756	443	247
Country N (%)			
Sweden	275 (36)	130 (29)	142 (58)
Netherlands	384 (51)	232 (52)	53 (21)
Norway	97 (13)	82 (18)	52 (21)
Male/female %	24/76	20/80	13/87
Age, mean (range)	44 (20-68)	45 (21-75)	45 (20-65)
Years of experience, mean (range)	18 (0-50)	18 (0-45)	19 (1-45)
Profession N (%)			
Nurse[1]	342 (45)	160 (37)	126 (53)
Nurse assistant	120 (16)	73 (17)	58 (24)
Doctor/specialist/psychiatrist	49 (7)	18 (4)	6 (3)
Therapist[2]	143 (19)	121 (28)	23 (9)
Manager[3]	45 (6)	32 (7)	19 (8)
Others[4]	47 (6)	28 (7)	6 (3)
Respondents per setting N (%)			
Community care services	137 (18)	110 (25)	77 (31)
Somatic hospital care	342 (45)	140 (32)	119 (48)
Psychiatric care	213 (28)	148 (33)	31 (13)
Mentally disabled care	49(7)	26 (6)	12 (5)
Health Inspection/Research	15 (2)	19 (4)	8 (3)
Institutions N	34	30	25
MCD participation, mean (range)	0 (0-5)	3 (0-6)	4 (0-10)
missing MCD participation %	30	60	51

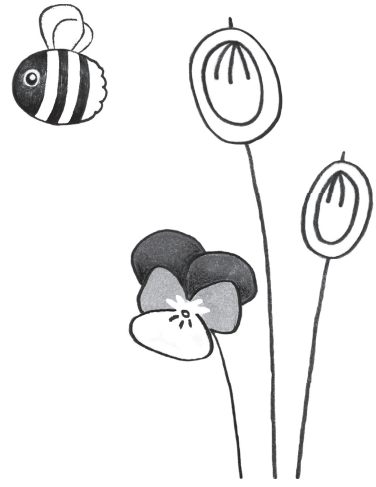
[1]Including registered nurses; support workers and psychosocial workers; [2]Including physiotherapists; psychologists; spiritual caregivers; social workers; [3]Including head of departments and policy makers, [4]Including volunteers, clients, researchers, trustees, secretary and interns

5

Field-testing the Euro-MCD Instrument: Experienced outcomes of moral case deliberation

De Snoo-Trimp J.C., Molewijk B., Ursin G., Brinchmann B.S., Widdershoven G.A.M., De Vet H.C.W., Svantesson M. (2019).

Nursing Ethics, 1-17.



ABSTRACT

Background: Moral case deliberation is a form of clinical ethics support to help healthcare professionals in dealing with ethically difficult situations. There is a lack of evidence about what outcomes healthcare professionals experience in daily practice after moral case deliberations. The Euro-MCD Instrument was developed to measure outcomes, based on the literature, a Delphi panel and content validity testing. To examine relevance of items and adequateness of domains, a field study is needed.

Aim: To describe experienced outcomes after participating in a series of moral case deliberations, both *during sessions* and *in daily practice;* and to explore correlations between items to further validate the Euro-MCD Instrument.

Methods: In Sweden, the Netherlands and Norway, healthcare institutions that planned a series of moral case deliberations were invited. Closed responses were quantitatively analyzed. The factor structure of the instrument was tested using exploratory factor analyses.

Ethical considerations: The study was approved in Sweden by a review board. In Norway and the Netherlands, data services and review boards were informed about the study.

Results: The Euro-MCD Instrument was completed by 443 and 247 healthcare professionals after 4 and 8 moral case deliberations, respectively. They experienced especially outcomes related to a better collaboration with co-workers and outcomes about individual moral reflexivity and attitude, both during sessions and in daily practice. Outcomes were experienced to a higher extent *during sessions* than *in daily practice*. The factor structure revealed four domains of outcomes, which did not confirm the six Euro-MCD domains.

Conclusions: Field-testing the Euro-MCD Instrument showed the most frequently experienced outcomes and which outcomes correlated with each other. When revising the instrument, domains should be reconsidered, combined with theory about underlying concepts. In the future, a feasible and valid instrument will be presented to get insight into how moral case deliberation supports and improves healthcare.

BACKGROUND

Supporting healthcare professionals, patients and family in dealing with ethically difficult situations is the main goal of clinical ethics support: a service that can take various forms, such as individual ethics consultants, ethics committees and moral case deliberation (MCD) (Molewijk et al. 2015). MCD[1] has been implemented now for more than two decades in many healthcare settings (Bartholdson et al. 2014; Dauwerse et al. 2014; Lillemoen & Pedersen 2015; Spijkerboer et al. 2017). MCD is a group dialogue in which professionals (sometimes with patients and family) jointly investigate a moral question that emerges out of a situation they experienced in their daily practice, by reflecting on relevant values and norms from different perspectives and on possible solutions. The dialogue is led by a trained facilitator (Stolper et al. 2015).

In literature about MCD, various goals have been described, like improving collaboration among colleagues, learning to identify moral questions and, by becoming aware of one's own viewpoint, acknowledging viewpoints of others (Stolper et al. 2015; Metselaar et al. 2015; Grönlund et al. 2016). Furthermore, several studies have been carried out to evaluate MCD through ways of dealing with moral dilemmas (Söderhamn et al. 2014; Spijkerboer et al. 2017), satisfaction among MCD participants (Hem et al. 2015; Silén et al. 2016) and assessment of MCD-content (Grönlund et al. 2016; Rasoal et al. 2016; Tønnessen et al. 2015;2017). As such, these studies were qualitative in nature and focused on the experiences of participants *during* the MCD sessions. However, as far as we know, there is no quantitative research, and also not much known about what outcomes these participants experience *after* the sessions, i.e. in daily practice.

In the research field of clinical ethics support services like MCD, there is yet no consensus about what outcomes MCD *should* lead to (Molewijk et al. 2017). To evaluate experienced outcomes of MCD, both *during* sessions as well as *in daily practice,* a preliminary instrument has been developed: the Euro-MCD Instrument (Svantesson et al. 2014). It measures the perceived importance and experience of outcomes after a series of 4 (T.1) and 8 (T.2) MCD sessions. The reason for two moments for measurement is that the developers were interested in whether the experience of outcomes would increase after participating in more MCD sessions, as it might take time for outcomes to settle. Frequent participation in MCD sessions may have a learning effect, as participants for instance learn what norms and values mean in a certain situation. Therefore, the skill of identifying norms and values becomes stronger after frequent

1 Also referred to as 'ethics reflection groups' (Lillemoen & Pedersen 2015) or 'ethics case reflections' (Bartholdson et al. 2014).

participation. Furthermore, the experience of for instance mutual understanding and open communication may increase in iterative MCD sessions. Also, MCD participants are asked to rate experienced outcomes both with regard to the *MCD sessions* and *in daily practice*. The reason for this distinction is that it is yet unknown if there is a difference between experienced outcomes *during* the sessions and those *in daily practice,* and that especially the latter category is of great importance.

Focus on the experienced outcomes of the MCD participants themselves is needed because MCD-outcomes such as growth in moral attitude are difficult to capture through objective measures like duration of hospital stay or in patient-reported quality of care scores (Schildmann et al. 2013; Haan et al. 2018). Furthermore, insight in the outcomes of MCD is important for organizations who use or want to use MCD; they probably want to know the potential impact of MCD sessions (besides the value of MCD sessions themselves). Thus, learning how healthcare professionals report to act after participation in a series of MCD is highly relevant.

The Euro-MCD Instrument was the product of an extensive process including a literature review, a Delphi-panel and content validity testing (Svantesson et al. 2014). It needs further validation and therefore it is currently being tested in a large field study in Sweden, the Netherlands and Norway. So far, data about perceived importance of outcomes by healthcare professionals *before* their participation in MCD have been published (De Snoo-Trimp et al. 2017; Svantesson et al. 2019). The ultimate purpose of the larger field study is to test and further develop the Euro-MCD Instrument for use in clinical practice and future evaluation research. Exploring correlations of outcomes of the instrument can inform possible categorization of outcomes. A clear and reliable categorization of outcomes is relevant for future studies, as domain scores can be presented instead of the separate results of each individual outcome.

Aim

The aim of the current study was twofold: 1) to describe the experienced outcomes *after* a series of MCD sessions, both during the sessions as well as in daily practice, and 2) to explore the correlations between items of the Euro-MCD Instrument and to inform about possible domains.

METHODS

Design

Descriptive longitudinal field survey and psychometric testing.

Sampling and data collection

Convenience sampling was used to recruit a large number of healthcare institutions that wanted to organize a series of at least 4 and preferably 8 MCD sessions. This recruitment took place between 2012 and 2017. Healthcare institutions were asked to organize MCD sessions on a monthly basis. On average, the time between 4 and 8 MCD sessions was 4 months. In Sweden and the Netherlands, various kinds of healthcare institutions that wanted to implement MCD or ethics reflection groups were invited to participate. In Norway, institutions were included via a national project supported by the Norwegian government to implement ethics reflection within community care institutions. In total, 30 healthcare institutions (6 in Sweden, 10 in the Netherlands and 14 in Norway) were included to complete the instrument after a series of 4 MCDs (T.1). In 25 institutions (6 in Sweden, 5 in the Netherlands and 14 in Norway), MCD participants also completed the instrument after a total of 8 MCD sessions (T.2). The institutions included community care, somatic hospital care, psychiatry, care for mentally disabled people, the Dutch health inspectorate and policy departments of hospitals. The instrument was administered on paper in Sweden and both on paper and by e-mail in the Netherlands. In Norway, the questionnaire was sent via a web-based questionnaire. In all countries, two reminders were sent. Table 1 shows the background of the respondents, including country and healthcare setting.

The Euro-MCD Instrument

The Euro-MCD Instrument consists of 26 possible outcomes of MCD, categorized in six domains: 1) Enhanced emotional support; 2) Enhanced collaboration; 3) Improved moral reflexivity; 4) Improved moral attitude; 5) Impact at organizational level and 6) Concrete results. The instrument was developed in a process including a literature review, a Delphi-panel and content validity testing as described in more detail by Svantesson et al. (2014). The instrument was translated and culturally adapted into Swedish, Norwegian and Dutch with the use of two independent translators, back-translation and 'think-aloud'-interviews (in each country). The instrument was administered *after* participation in a series of 4 (T.1) and 8 (T.2) MCDs, asking *both* the *perceived importance* as well as the *experience* of the 26 outcomes based on all MCDs they participated in. In this paper, we will focus on the *experienced* outcomes. By 'experience' we mean whether they recognize the described outcome as being present, either during or beyond the MCD sessions.

Respondents rated the extent to which they had experienced each outcome both *during the MCD sessions* as well as *in their daily practice* on a 4-point Likert scale, from 'not at all' to 'in a high degree'. The answer option 'cannot take a stand' was also presented as a response option. Next to presenting the 26 outcomes, the survey also contained three *open* questions about experienced outcomes and aspects that should be improved during the MCD sessions; these results will be published elsewhere.

Data analysis

Statistical Package for Social Sciences (SPSS), version 22, was used for all analyses. Data was not normally distributed so non-parametric tests (Wilcoxon Signed Rank Test and Chi-Square Test) were used to calculate the significance of differences between experiences *during the sessions* and experiences *in daily practice,* and between T.1 and T.2.

We performed an Exploratory Factor Analysis to examine how many factors (i.e. a cluster of correlated MCD outcomes) could be detected in the responses to the instrument. This was examined with use of Principal Component Analysis to show the correlations between the ratings of items (De Vet et al. 2011). We were looking for a factor structure that represented both experienced outcomes *during the MCD sessions* as well as experienced outcomes *in daily practice*. The developers of the Euro-MCD Instrument suggested six different domains of outcomes (Svantesson et al. 2014): 1) Enhanced emotional support; 2) Enhanced collaboration; 3) Improved moral reflexivity; 4) Improved moral attitude; 5) Impact on organizational level and 6) Concrete results.

Ethical considerations

In Sweden, an advisory statement including "no objection to this study" was made by the Regional Ethical Review Board (dnr 2012/34). In the Netherlands, the Ethical Review Board (2017.612) and in Norway, the Norwegian Social Science Data Service were informed about the study.

Healthcare professionals of the participating institutions received the instrument accompanied by an information letter. In this information letter, the background and aim of the study were explained and it was specified that completing the instrument was on voluntary basis and that they could also withdraw from this study at any moment without giving reasons for that. Furthermore, they learned that responses would be handled confidentially and completed instruments would be sent directly to the researchers outside the institution.

Table 1 – Characteristics of respondents Euro-MCD Instrument

	Who completed T.1 (after 4 MCDs)	Who completed T.2 (after 8 MCDs)	Who completed both T.1 &T.2*
Total N	443	247	129
Country N (%)			
Sweden	130 (29)	142 (58)	81 (63)
Netherlands	232 (52)	53 (21)	31 (24)
Norway	82 (18)	52 (21)	17 (13)
Male/female %	20/80	13/87	13/87
Age, mean (range)	45 (21-75)	45 (20-65)	46 (23-65)
Years of experience, mean (range)	18 (0-45)	19 (1-45)	19 (1-45)
Profession N (%)			
Nurse[1]	160 (37)	126 (53)	65 (50)
Nurse assistant	73 (17)	58 (24)	31 (24)
Doctor/specialist/psychiatrist	18 (4)	6 (3)	2 (2)
Therapist[2]	121 (28)	23 (9)	13 (10)
Manager[3]	32 (7)	19 (8)	8 (6)
Others[4]	28 (7)	6 (3)	3 (2)
Respondents per setting N (%)			
Community care services	110 (25)	77 (31)	37 (29)
Somatic hospital care	140 (32)	119 (48)	63 (49)
Psychiatric care	148 (33)	31 (13)	16 (12)
Mentally disabled care	26 (6)	12 (5)	6 (5)
Health Inspection/policy departments	19 (4)	8 (3)	7 (5)
Institutions N	30	25	18
MCD participation, mean (range)	3 (0-6)	4 (0-10)	T1: 3 (0-5) T2: 5 (1-10)
missing MCD participation %	60	51	T1: 73 T2: 50

**These respondents are also represented in the T.1 and T.2 colons*
[1]Including registered nurses; support workers and psychosocial workers; [2]Including physiotherapists; psychologists; spiritual caregivers; social workers; [3]Including head of departments and policy makers, [4]Including volunteers, clients, researchers, trustees, secretary and interns

RESULTS

The Euro-MCD Instrument was completed by 443 healthcare professionals after participating in 4 MCDs (T.1) and by 247 healthcare professionals after participating in 8 MCDs (T.2), of which 129 healthcare professionals completed both T.1 and T.2. The characteristics of these healthcare professionals, including countries, professions and healthcare domains are presented in Table 1. In the following part, we will outline the top-three outcomes as experienced in a 'quite high' or 'high' degree by most respondents, both during the MCD sessions and in daily practice, followed by the top-three of outcomes that were indicated as 'not experienced'. These outcomes (most experienced and not experienced) are considered most informative in view of the further validation of the instrument. Secondly, we present the results of the factor analyses.

Experienced outcomes during the MCD sessions

During the MCD sessions, all 26 items were experienced by 43 to 80 percent of the respondents in 'quite high' or 'high' degree (see Table 2). After 4 sessions (T.1), the top-three items that respondents experienced in a 'quite high' or 'high' degree were: 'I see the situation from different perspectives' (79%); 'Better mutual understanding of each other's reasoning and acting' (77%) and 'More open communication among co-workers' (74%) (no. 2, 8 and 9 in Table 2). After 8 sessions (T.2), the three highest scores occurred for the items: 'I listen more seriously to other's opinions' (80% at T.2); 'Greater opportunity for everyone to have their say' (80%) and (like T.1) 'Better mutual understanding of each other's reasoning and acting' (78%) (no. 8, 14 and 17 in Table 2). These items mainly come from the original Euro-MCD domain 'Enhanced collaboration'. Respondents who completed only the T.2 questionnaire rated their experience of 5 outcomes significantly higher than respondents who completed only the T.1 questionnaire (see Table 2). For these 5 outcomes, when looking at the groups of respondents who completed only T.1 or only T.2, percentages for experiencing it in a 'quite high' and 'high' degree at T.2 were on average 16 percent higher than at T.1 (range 10-28%) (not in a table). Respondents who completed both questionnaires (N=129) did not significantly change in their experience of outcomes at T.2 compared to T.1.

Experienced MCD outcomes in daily practice

In daily practice, all items were experienced to a 'quite high' or 'high' degree by 34 to 64 percent of the respondents. All outcomes were experienced to a significantly lower degree in this setting of daily practice than *during MCD sessions.* On average, at T.1, the percentage of respondents rating an outcome as having experienced it to a 'quite high'

or 'high' degree *during the sessions* was 13 percent (range 5 to 28%) higher than *in daily practice.* This difference was 14 percent (range 5-23%) at T.2 (*not in a table*). At both T.1 and T.2, two items were rated by most respondents as having been experienced to a 'quite high' or 'high' degree: 'I see the situation from different perspectives' (60% at T.1 and 62% at T.2), 'Increases my awareness of the complexity of situations' (57% at T.1 and 63% at T.2) (no. 9 and 11 in Table 3). At T.1, the item 'Better mutual understanding of each other's reasoning and acting' (no. 8) was also experienced in a 'quite high' or 'high' degree (56%) and at T.2, the item 'I listen more seriously to other's opinions' (no. 17; 64%) was also one of the top-3 items at T.2. When looking at the Euro-MCD domains, the most experienced outcomes belong to Improved moral reflexivity, Improved moral attitude and Enhanced collaboration. Table 3 presents the experience of MCD items in *daily practice*, comparable to Table 2. Respondents who completed only T.2 rated their experience significantly higher for 10 outcomes compared with respondents who completed only T.1, with a mean difference of 13 percent (4-18%) for experiencing it in a 'quite high' and 'high' degree (not in a table, Table 3 presents percentages of all respondents not only those who completed only T.1 or only T.2). Respondents who completed both T.1 and T.2 (N=129) did not significantly change in their experiences.

Table 2 Experienced outcomes during MCD sessions after 4 (T.1) and 8 sessions (T.2)

	To what degree did you experience this outcome?		Not	Somewhat	Quite high & High	More or less experienced at T.2 than T.1?**
			% of respondents per answer option			
1	Develops my skills to analyze ethical difficult situations	T.1	3	31	65	
		T.2	2	30	68	
2	More open communication among co-workers	T.1	4	22	74	
		T.2	3	21	76	
3	Consensus is gained amongst co-workers in how to manage the situation	T.1	6	36	59	
		T.2	3	36	60	
4	Enables me to better manage the stress from the ethical situation	T.1*	22	34	45	
		T.2	13	45	43	
5	Contributes to the development of practice/policies in the workplace	T.1	12	45	43	
		T.2*	9	44	47	
6	Gives me more courage to express my ethical standpoint	T.1	11	30	60	
		T.2	7	24	70	
7	I feel more secure to express doubts or uncertainty regarding difficult situations	T.1	12	30	58	More (p=0.010)
		T.2	5	27	68	
8	Better mutual understanding of each other's reasoning and acting	T.1	3	21	77	
		T.2	1	21	78	
9	I see the situation from different perspectives	T.1	2	19	79	
		T.2	1	23	76	
10	I and my co-workers become more aware of recurring situations	T.1	7	25	68	
		T.2	1	28	71	
11	Increases my awareness of the complexity of the situation	T.1	6	26	68	
		T.2	3	22	75	
12	Enhances my understanding of ethical theories	T.1	13	37	50	
		T.2	7	36	57	
13	Enables to decide on concrete actions to manage the situation	T.1	9	35	55	
		T.2	4	34	62	
14	Greater opportunity for everyone to have their say	T.1	6	27	67	More (p=0.010)
		T.2	2	18	80	

Table 2 Continued

To what degree did you experience this outcome?		Not	Somewhat	Quite high & High	More or less experienced at T.2 than T.1?**
		% of respondents per answer option			
15 Enhances possibility to share difficult emotions and thoughts	T.1	4	27	70	
	T.2	2	24	74	
16 Find more courses of action to manage the situation	T.1	5	31	64	
	T.2	2	30	68	
17 I listen more seriously to other's opinions	T.1	12	27	61	More (p=0.000)
	T.2	3	18	80	
18 Increases awareness of own emotions	T.1	12	31	58	More (p=0.009)
	T.2	5	27	67	
19 Strengthens my self-confidence when managing difficult situations	T.1	12	32	56	
	T.2	7	31	62	
20 Develops my ability to identify the core ethical question in difficult situations	T.1	8	35	58	
	T.2*	4	33	63	
21 I and my co-workers examine more critically existing practice/policies in workplace	T.1	14	34	53	
	T.2*	8	36	56	
22 I and my co-workers manage disagreements more constructively	T.1	14	35	52	
	T.2*	11	33	57	
23 I gain more clarity about own responsibility in difficult situations	T.1	10	34	57	
	T.2	4	30	66	
24 Enhances mutual respect amongst co-workers	T.1	10	28	63	
	T.2	4	24	72	
25 I become more aware of my preconceived notions	T.1	12	31	57	More (p=0.031)
	T.2	4	30	65	
26 I understand better what it means to be a good professional	T.1	12	32	56	
	T.2*	4	28	68	

**More than 15% of respondents answered the option 'Cannot take stand' or did not give any answer*
***Only significant changes are shown, in the independent samples t-test (Chi-Square): respondents who completed only T.1 (N=314) or T.2 (N=118), calculated on basis of mean score (on 1-4 Likert scale) for every item, p-value <0.05*
There were no significant differences in the dependent samples t-test (Wilcoxon signed-rank test), with 129 respondents who completed both T.1 and T.2, p-value<0.05

Table 3 Experienced outcomes in *daily practice* after 4 (T.1) and 8 MCD-sessions (T.2)

	To what degree did you experience this outcome?		Not	Somewhat	Quite high & High	More or less experienced at T.2 than T.1?**
			% of respondents per answer option			
1	Develops my skills to analyze ethical difficult situations	T.1	10	48	42	More (p=0.004)
		T.2	4	46	50	
2	More open communication among co-workers	T.1	12	43	46	More (p=0.036)
		T.2	4	42	54	
3	Consensus is gained amongst co-workers in how to manage the situation	T.1	12	49	39	
		T.2	11	51	38	
4	Enables me to better manage the stress from the ethical situation	T.1	23	44	34	
		T.2*	19	36	45	
5	Contributes to the development of practice/policies in the workplace	T.1	15	48	37	More (p=0.035)
		T.2*	14	45	42	
6	Gives me more courage to express my ethical standpoint	T.1	13	41	47	
		T.2	10	32	58	
7	I feel more secure to express doubts or uncertainty regarding difficult situations	T.1	15	38	48	More (p=0.001)
		T.2	7	33	61	
8	Better mutual understanding of each other's reasoning and acting	T.1	7	36	56	
		T.2	3	38	59	
9	I see the situation from different perspectives	T.1	7	33	60	
		T.2	3	36	62	
10	I and my co-workers become more aware of recurring situations	T.1	10	39	52	
		T.2	6	36	58	
11	Increases my awareness of the complexity of the situation	T.1	8	35	57	More (p=0.015)
		T.2	4	33	63	
12	Enhances my understanding of ethical theories	T.1	19	38	43	
		T.2	14	41	45	
13	Enables to decide on concrete actions to manage the situation	T.1	16	40	44	
		T.2	11	37	52	
14	Greater opportunity for everyone to have their say	T.1	15	37	48	More (p=0.039)
		T.2	7	36	57	

Table 3 Continued

To what degree did you experience this outcome?		Not	Somewhat	Quite high & High	More or less experienced at T.2 than T.1?**
		% of respondents per answer option			
15 Enhances possibility to share difficult emotions and thoughts	T.1	12	39	49	
	T.2	5	43	52	
16 Find more courses of action to manage the situation	T.1	11	46	43	
	T.2	8	41	51	
17 I listen more seriously to other's opinions	T.1	14	32	54	More (p=0.000)
	T.2	4	32	64	
18 Increases awareness of own emotions	T.1	13	33	53	
	T.2	8	35	58	
19 Strengthens my self-confidence when managing difficult situations	T.1	16	35	49	
	T.2	9	35	57	
20 Develops my ability to identify the core ethical question in difficult situations	T.1	12	41	47	
	T.2*	6	41	53	
21 I and my co-workers examine more critically existing practice/policies in workplace	T.1	18	43	39	
	T.2*	14	44	42	
22 I and my co-workers manage disagreements more constructively	T.1	17	41	42	
	T.2*	13	48	40	
23 I gain more clarity about own responsibility in difficult situations	T.1	11	37	51	
	T.2	5	40	55	
24 Enhances mutual respect amongst co-workers	T.1	12	35	53	More (p=0.023)
	T.2	6	37	57	
25 I become more aware of my preconceived notions	T.1	15	37	48	More (p=0.009)
	T.2	5	37	58	
26 I understand better what it means to be a good professional	T.1	13	37	50	More (p=0.040)
	T.2*	5	36	60	

**More than 15% of respondents answered the option 'Cannot take stand' or did not give any answer*
***Only significant changes are shown, in the independent samples t-test (Chi Square): respondents who completed only T.1 (N=314) or T.2 (N=118), calculated on basis of mean score (on 1-4 Likert scale) for every item, p-value <0.05*
There were no significant differences in the dependent samples t-test (Wilcoxon signed-rank test), with 129 respondents who completed both T.1 and T.2, p-value<0.05

Outcomes rated as 'not experienced' or 'cannot take a stand' or where no answer was given

Overall, the percentage of respondents who rated one of the items as 'not experienced' ranged from 1% to 23%. The three items rated most often as 'not experienced' were the same for experiences *during MCD sessions* and *in daily practice* (no. 4, 21 and 22 in Table 2 and 3): 'Enables me to better manage the stress from the ethical situation' (22% and 13% at T.1 and T.2 resp. *during MCD sessions* and 23% and 19% at T.1 and T.2 resp. *in daily practice*); 'I and my co-workers examine more critically existing practice/policies in workplace' (14% at T.1 and 8% at T.2 *during MCD sessions* and 18% and 14% at T.1 and T.2 resp. *in daily practice*) and 'I and my co-workers manage disagreements constructively' (14% and 11% at T.1 and T.2 resp. *during MCD sessions* and 17% and 13% at T.1 and T.2 resp. *in daily practice*). Nevertheless, all these outcomes were still experienced in a 'quite high' or 'high' degree by more than 40 percent of the respondents *during MCD sessions* and more than 34 percent *in daily practice*. Furthermore, regarding all items, 7-17 percent of the respondents (N=23-73) could not provide an answer (they filled in 'Cannot take a stand' or did not give an answer). In Tables 2 and 3, items with a high percentage (>15%) of respondents who could not take a stand are marked.

The factor structure of the outcomes

For the factor analyses, responses from T.1 and T.2 were merged in order to get sufficient power. For the respondents who completed both T.1 and T.2, we decided to take their responses at T.2. We assumed that these T.2 responses referred to their experiences in all MCD sessions. By this, we aimed to get the most complete and reliable insight in their experiences.

Table 4 shows the merged results of factor analyses for experience of outcomes *during MCD sessions* and *in daily practice*. In all analyses, no items correlated less than 0.2 or more than 0.9 with other items. Regarding the experienced outcomes *during MCD sessions*, Principal Component Analysis suggested that the items represent two different classes of outcomes (two factors). However, five out of 26 outcomes were associated with outcomes of both of these two factors, so the distinction was not adequate and thus, this factor model was not considered informative enough. Next, a forced three factor model was constructed by forcing SPSS to split the responses into three classes. This was not considered informative either since four outcomes were still associated with items of more than one factor (or class). Therefore, a forced four factor model was performed. This four factor model showed a better distinction of outcomes into four classes where only one outcome was associated with more than one factor, and only one outcome did not associate to any factor.

Regarding the experience of outcomes in *daily practice*, Principal Component Analysis primarily suggested a one factor model, indicating that outcomes represent only one class of outcomes. This was not considered distinctively powerful because we wanted to know how responses could be divided into separate (and thus more than one) classes. Therefore, we forced the data to divide responses into two and three factors, by performing forced two and three factor models. Both models did not show clear divisions of data either, since many (respectively 12 and 8) outcomes were associated with outcomes of more than one factor. Subsequently, in a four factor model, only three outcomes were associated with outcomes of more than one factor. Therefore, a four factor model for experienced outcomes in daily practice was considered to be the best informative model (see Table 4).

In short, the factor structure of all experienced outcomes (both *during the sessions* and *in daily practice*) did not confirm the 6 Euro-MCD domains (see Method section) because it revealed a division of the items into four classes (i.e. factors, or domains). Both factor analyses of outcomes experienced *during MCD sessions* and outcomes experienced in *daily practice* finally provided a four factor model, although the contents partly differed among each other. We see – to some extent – the following content in these four factors: firstly, outcomes referring to virtues were correlated (e.g. respect and being a good professional). In another factor, outcomes involving skills for ethical analysis were correlated (e.g. identifying difficult situations and the core ethical question). Next, outcomes about sharing feelings (like feeling secure to express doubts and mutual understanding) associated in the same factor, and fourthly, outcomes about actions (concerning the development of policies and concrete decisions) were correlated. To facilitate readability, both an overview of outcomes that loaded at the same factor in both factor analyses (of during MCD sessions and of after MCD in daily practice), as well as an overview of the outcomes that were associated with each other in *only one of these two* factor analyses, is presented in Table 5. For every factor, at least three outcomes were associated with each other in both analyses of *MCD sessions* and *daily practice* (see also Table 4). Also, the link with the original Euro-MCD domain is shown in Table 5.

Table 4 – Factor loadings of items Euro-MCD Instrument (during MCD sessions and in *daily practice*)

Item		Experienced in MCD or practice:	Factor loading			
			1	2	3	4
1	Develops my skills to analyze ethical difficult situations	MCD		0.651		
		practice				0.659
2	More open communication among co-workers	MCD			0.624	
		practice		0.692		
3	Consensus is gained amongst co-workers in how to manage the situation	MCD				0.563
		practice		0.747		
4	Enables me to better manage the stress from the ethical situation	MCD	-	-	-	-
		practice		0.523		
5	Contributes to the development of practice/policies in the workplace	MCD				0.702
		practice		0.705		
6	Gives me more courage to express my ethical standpoint	MCD			0.653	
		practice			0.502	
7	I feel more secure to express doubts or uncertainty regarding difficult situations	MCD			0.593	
		practice			0.530	
8	Better mutual understanding of each other's reasoning and acting	MCD			0.638	
		practice		*0.552*	*0.570*	
9	I see the situation from different perspectives	MCD		0.700		
		practice			0.679	
10	I and my co-workers become more aware of recurring situations	MCD		0.605		
		practice			0.657	
11	Increases my awareness of the complexity of the situation	MCD		0.605		
		practice			0.630	
12	Enhances my understanding of ethical theories	MCD		0.678		
		practice				0.501
13	Enables to decide on concrete actions to manage the situation	MCD				0.534
		practice		0.578		

Table 4 – Continued

Item		Experienced in MCD or practice:	Factor loading			
			1	2	3	4
14	Greater opportunity for everyone to have their say	MCD			0.551	
		practice		0.559		
15	Enhances possibility to share difficult emotions and thoughts	MCD			0.591	
		practice	0.581			
16	Find more courses of action to manage the situation	MCD		0.540		
		practice		0.519		
17	I listen more seriously to other's opinions	MCD	0.711			
		practice	0.647			
18	Increases awareness of own emotions	MCD	0.708			
		practice	0.575			0.519
19	Strengthens my self-confidence when managing difficult situations	MCD	0.618			
		practice	0.518			0.558
20	Develops my ability to identify the core ethical question in difficult situations	MCD		0.592		
		practice				0.632
21	I and my co-workers examine more critically existing practice/policies in workplace	MCD				0.676
		practice	0.627			
22	I and my co-workers manage disagreements more constructively	MCD				0.578
		practice	0.665			
23	I gain more clarity about own responsibility in difficult situations	MCD	0.617			
		practice	0.627			
24	Enhances mutual respect amongst co-workers	MCD	0.585			
		practice	0.691			
25	I become more aware of my preconceived notions	MCD	0.718			
		practice	0.693			
26	I understand better what it means to be a good professional	MCD	0.693			
		practice	0.686			

Table 5 – Overview outcomes per factor compared to Euro-MCD domains

Factor		No. Item Euro-MCD Instrument	Euro-MCD domain^
1	Outcomes clustering in both experiences *during MCD* and *in daily practice*	17. I listen more seriously to other's opinions	4
		18. Increases awareness of own emotions*	1
		19. Strengthens my self-confidence when managing difficult situations*	1
		23. I gain more clarity about own responsibility in difficult situations	4
		24. Enhances mutual respect amongst co-workers	2
		25. I become more aware of my preconceived notions	4
		26. I understand better what it means to be a good professional	4
	only *in daily practice*	15. Enhances possibility to share difficult emotions and thoughts	1
		21. I and my co-workers examine more critically existing practice/policies in workplace	5
		22. I and my co-workers manage disagreements more constructively	2
2	Outcomes clustering in both experiences *during MCD* and *in daily practice*	1. Develops my skills to analyze ethical difficult situations	3
		12. Enhances my understanding of ethical theories	3
		16. Find more courses of action to manage the situation	6
		20. Develops my ability to identify the core ethical question in difficult situations	3
	only *during MCD*	9. I see the situation from different perspectives	3
		10. I and my co-workers become more aware of recurring situations	5
		11.Increases my awareness of the complexity of the situation	3
	only *in daily practice*	14. Greater opportunity for everyone to have their say	2
		18. Increases awareness of own emotions*	1
		19. Strengthens my self-confidence when managing difficult situations*	1
3	Outcomes clustering in both experiences *during MCD* and *in daily practice*	6. Gives me more courage to express my ethical standpoint	4
		7. I feel more secure to express doubts or uncertainty regarding difficult situations	1
		8. Better mutual understanding of each other's reasoning and acting*	2
	only *during MCD*	2. More open communication among co-workers	2
		14. Greater opportunity for everyone to have their say	2
		15. Enhances possibility to share difficult emotions and thoughts	1
	only *in daily practice*	9. I see the situation from different perspectives	3
		10. I and my co-workers become more aware of recurring situations	5
		11.Increases my awareness of the complexity of the situation	3
4	Outcomes clustering in both experiences *during MCD* and *in daily practice*	3. Consensus is gained amongst co-workers in how to manage the situation	6
		5. Contributes to the development of practice/policies in the workplace	5
		13. Enables to decide on concrete actions to manage the situation	6
	only *during MCD*	21. I and my co-workers examine more critically existing practice/policies in workplace	5
		22. I and my co-workers manage disagreements more constructively	2
	only *in daily practice*	2. More open communication among co-workers	2
		4. Enables me to better manage the stress from the ethical situation	1
		8. Better mutual understanding of each other's reasoning and acting*	2
Not associated with any factor (during MCD)		4. Enables me to better manage the stress from the ethical situation	1

** Correlated at >1 factor*
^ Original Euro-MCD domains:
1 = Enhanced emotional support
2 = Enhanced collaboration
3 = Improved moral reflexivity
4 = Improved moral attitude
5 = Impact on organizational Level
6 = Concrete results

DISCUSSION

The majority of the 561 healthcare professionals in this study indicated that *during the MCD sessions,* they experienced outcomes relating to a better collaboration with co-workers. These outcomes were also experienced by many respondents *in daily practice*, i.e. after the MCD sessions. Next, many respondents reported that they experienced outcomes about own moral reflexivity and attitude, both *during MCD sessions* as well as *in daily practice*. The factor analyses did not confirm the division of the six original Euro-MCD domains.

Experienced MCD outcomes

The findings are in line with previous literature about the impact of MCD on collaboration among colleagues (Hem et al. 2015; Spijkerboer et al. 2017; Haan et al. 2018; Magelssen et al. 2018) and moral self-reflection and moral attitude (Söderhamn et al. 2014; Silén et al. 2016; Spijkerboer et al. 2017). For instance, in the study of Söderhamn et al. (2014), healthcare professionals reported to have experienced an enhanced moral awareness of ethical issues and that they learned more about themselves in order to become better healthcare professionals. More recently, and also with use of a (quantitative) questionnaire, Spijkerboer et al. (2017) found that MCD fosters working together and fosters communication. Furthermore, a recent literature review reported that impact of MCD was mainly shown at both the individual level as well as in the relationships between professionals (Haan et al. 2018). These results seem to be plausible given the features of MCD itself: in MCD, 'participants are encouraged in their attempts to put their moral understandings into words and to listen actively, to open up to the other and to put their prejudices into play' (Widdershoven & Metselaar 2012). Yet, the fact that respondents say that they also experienced better collaboration and improved moral reflexivity and attitude after MCD, in daily practice, has not been demonstrated that systematically before.

Comparison of outcomes between during MCD sessions and afterwards in daily practice

As anticipated, MCD outcomes were experienced stronger *during MCD sessions* than *in daily practice* (although still more than one third reported to have experienced outcomes in quite high or high degree in the latter setting). First, a possible explanation is that Euro-MCD outcomes might be easier to link to the MCD sessions. For instance, an exchange of ideas does explicitly take place *during the session* and might thus rather directly lead to experiences of seeing others' perspectives. Second, the MCD session is an intense and set moment that might be easier to link outcomes to than the

daily practice in which the experience of outcomes might be less readily recognized. Our findings showed that in evaluating MCD, it is important to distinguish between experiences *in* and *after* the sessions, since experiencing outcomes *during MCD* does not necessarily mean that MCD influences participants' thinking and acting in daily practice to the same extent. This difference between experiences *in* and *after* MCD was also shown in the study of Silén et al. (2016), in which healthcare professionals were interviewed after participating in ethics rounds (comparable to MCDs). They said to have obtained better insights in and more awareness of ethically difficult situations *in* the sessions, but that they had not experienced changes *afterwards,* in their daily work. However, Magelssen et al. (2018) recently showed that facilitators of ethics activities thought that the activities did have a significant impact on daily practice. Future observational research is needed to get more grip on the impact of MCD in *daily practice*.

Changes over time

The change in experience of outcomes between T.1 and T.2 was not significant for the group of respondents who completed *both* T.1 and T.2. Respondents who completed *only* T.2 experienced outcomes (both *during MCD* and *in daily practice*) to a higher extent compared to respondents who completed *only* T.1. The reasons for these differences are unclear as we do not know exactly why some respondents only responded to one of the two questionnaires. Some healthcare institutions organized only 4 sessions due to organizational issues, which made a T.2-questionnaire not possible. Another possible reason that respondents only completed only one of the two questionnaires might be staff-turnover during the time the fifth to eighth MCD sessions were held.

The finding that respondents who completed only T.2 highly rated their experience of outcomes might be due to selection bias, assuming that participants who had positive experiences with MCD outcomes participated more often in 8 sessions than those who were not that positive, as those who had less positive experiences did only attend 4 MCD sessions. It could also be that participants actually experienced more outcomes after attending more MCD sessions. But these are merely possible explanations. Therefore, we need to further reflect on the link between duration of the series of MCD sessions and the experience of MCD outcomes. This will also inform future MCD evaluation research: what is the right moment to ask MCD participants for their experienced outcomes?

Relationship of the factor structure with the original Euro-MCD domains

The factor analyses suggested a division into four classes (covering partly overlapping items) for both experiences *during MCD sessions* as well as *in daily practice*, but different

from the original categorization of six domains of MCD outcomes. However, when looking at the outcomes that were associated with each other according to the factor analyses, some similarities between the classes and the Euro-MCD domains can be recognized. These links form useful suggestions for the further development of the Euro-MCD Instrument. First, outcomes from the Euro-MCD domains 'Improved moral attitude' and 'Improved moral reflexivity' were not correlated in the current factor analyses, indicating that they (as envisaged by the developers) indeed refer to different categories of outcomes (e.g. perhaps moral attitude might refer more to virtues and moral reflexivity more to skills). Furthermore, it seemed that the domain 'Improved moral attitude' was more closely linked to the domain 'Enhanced emotional support' than 'Improved moral reflexivity' since many outcomes from these domains clustered into one factor. Finally, the items of the domains 'Enhanced collaboration'; 'Impact on organizational level' and 'Concrete results' were associated with items from all other domains and might thus not be so clearly to interpret according to their original meaning. These items would therefore need thorough thinking and revision to be included (or not) as items with clear meanings in the future version of the instrument.

Various empirical data sources and normative reasoning determine content of revised Euro-MCD

We want to emphasize here that the final categorization of outcomes for the Euro-MCD Instrument should not be based on the results of these factor analyses only. Developing a measurement instrument for outcomes of a clinical ethics supportive intervention like MCD is a complex (but highly needed) process (Schildmann et al. 2016). For the revision of the Euro-MCD Instrument, various empirical findings from different field studies (Rasoal et al. 2017; De Snoo-Trimp et al. 2017;2018; Svantesson et al. 2018;2019) should be combined with conceptual and normative discussions on what outcomes *should* be included based on the (theoretically described) goals of MCD. The main relevance of the factor analysis as done in the current study is that it informs us about the correlations among items and about what possible clustering of items would be meaningful in the sense that items indeed refer to the same underlying construct. If clear factors are found in factor analysis, presentation of outcomes in future studies can be more limited as domain scores can be presented instead of presenting the separate results of each individual outcome.

Strengths and limitations

This study is unique in the field of evaluating clinical ethics support, since we were able to include a large sample of healthcare professionals from three countries and from different healthcare settings. Furthermore, the healthcare professionals participated in

multiple MCD sessions and could thus base their experience on not just a single session of ethics support. Besides, we were able to compare their experience on short (T.1) and long term (T.2) and to distinguish between their experiences *during* the sessions and *in daily practice,* which has not been done before. However, the large sample was highly heterogeneous with small sample sizes of subgroups from different countries and with different professional backgrounds. This, on the one hand, gave robust results over all included subgroups and is informative for further developing an actual *European* instrument that is applicable to various settings. But on the other hand, it made it impossible to reliably compare subgroups of respondents in how they experienced the outcomes. Furthermore, we could not provide data about the response rates for every country. Since this field study is primarily aimed at validating the instrument, we do not see this and the heterogeneity of our data as a major limitation. But one limitation is that we lack information from several respondents regarding how many sessions they actually attended (see Table 1). This means that the contrast between the groups completing the instrument after 4 sessions (T.1) and after 8 sessions (T.2) is not definitive. We can therefore not make any strong conclusions regarding the differences we found between T.1 and T.2. Finally, the number of respondents at T.2 was low, so that we had to merge the T.1 and T.2-answers to attain sufficient power for the factor analysis. Since respondents who completed both questionnaires did not significantly change their ratings between T.1 and T.2, as has been described before (and as shown in Table 2 and 3), the decision that we took their T.2-answers for factor analyses did not influence the results.

Future perspectives

The findings on the experienced outcomes and the factor structure add to the data from other Euro-MCD field studies to further validate and revise the Euro-MCD Instrument (Rasoal et al. 2017; De Snoo-Trimp et al. 2017;2018; Svantesson et al. 2018;2019). Other ongoing field studies include the perceived importance of the outcomes (by healthcare participants) after MCD participation, the facilitator's role and the manager's views on impact. In the overall process of developing a new Euro-MCD Instrument, which is currently taken place, the empirical evidence will be combined with normative reflections by the research team, ethics experts as well as healthcare professionals from the field. In the end, a feasible and valid tool to assess outcomes of MCD will be presented to be used in future evaluation research, the training of MCD facilitators and in clinical practice for those who are about to implement MCD in their healthcare organization. After finishing this validation process resulting in a revised instrument, validation should continue, as instrument validation will never end.

Conclusions

Healthcare professionals, after participating in a series of MCD sessions, seem to experience a better collaboration with their co-workers and a growth in personal moral reflexivity and moral attitude. Many of the Euro-MCD outcomes were experienced during MCD sessions and to a lesser extent in daily practice. Testing the factor structure of the Euro-MCD Instrument did not confirm the originally suggested six domains but revealed four different domains of outcomes with some overlap between experienced outcomes during the MCD sessions and experienced outcomes in daily practice (i.e. after the MCD sessions). The findings however suggested that items belonging to the domains of Improved moral reflexivity and Improved moral attitude refer to separate constructs and that the domain Enhanced emotional support might be close to Improved moral attitude. Results further showed that items from the other domains had no clear correlations according to their original categorisations. In the revision process of the Euro-MCD Instrument, the domains of items should thus be reconsidered, combined with theoretical thinking about the underlying concepts. The revised instrument will contribute to further outcomes research in order to professionalize the use of MCD as a form of clinical ethics to support and improve healthcare practices.

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6

Defining and categorizing outcomes of moral case deliberation (MCD): concept mapping with experienced MCD participants

De Snoo-Trimp J.C., Molewijk A.C., De Vet H.C.W. (2018).

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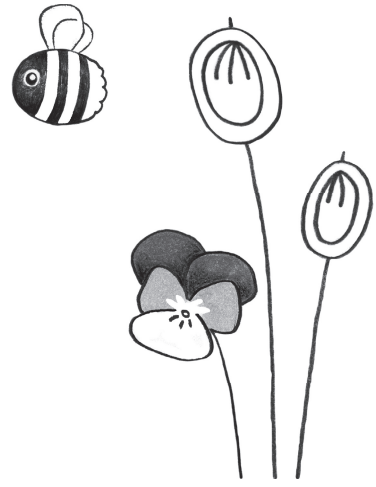

ABSTRACT

Background: To support healthcare professionals in dealing with ethically difficult situations, clinical ethics support (CES) services like moral case deliberation (MCD) are increasingly implemented. To assess the impact of CES, it is important to evaluate outcomes. Despite general claims about outcomes from MCD experts and some qualitative research, there exists no conceptual analysis of outcomes yet. Therefore, the aim of this study was to systematically define and categorize MCD outcomes. An additional aim was to compare these outcomes with the outcomes in the Euro-MCD Instrument from 2014, to further validate this instrument.

Methods: The concept mapping method was used and involves qualitative and quantitative steps including brainstorming, individual structuring, computation of concept maps (by principal component analysis and cluster analysis), group interpretation and utilization. In total, 12 experienced MCD participants from a variety of professional backgrounds participated in two sessions.

Results: The focus group brainstorm resulted in a list of 85 possible MCD outcomes, of which a point map and concept maps were constructed. After a thorough discussion of each cluster, final consensus was reached on the names and position of 8 clusters of MCD outcomes: 1) Organisation and policy; 2) Team development; 3) Personal development focused on the other person; 4) Personal development as professional, focused on skills; 5) Personal development as professional, focused on knowledge; 6) Personal development as an individual; 7) Perception and connection; and 8) Concrete action.

Conclusions: This study explored and categorized MCD outcomes in a concept mapping focus group. When comparing the results with the Euro-MCD Instrument, our study confirms that outcomes of MCD can be categorized in clusters referring to the organisational level, team development, personal development (both as an individual and a professional) and the concrete case-level. In developing CES evaluation tools, it is important to be explicit if an outcome refers to the individual or the team, to knowledge or skills, to the organisation or the specific case. The findings will be used in the further validation of the Euro-MCD Instrument. The current study further contributes to the field of evaluating CES in general and defining outcomes of MCD in particular.

BACKGROUND

Healthcare professionals are confronted with ethically difficult situations every day. When aiming for good care, they face moral questions like: What is good care in this situation? Who should determine what good care is? How to deal with different viewpoints on good care? Clinical ethics support (CES) aims to help healthcare professionals in dealing with these situations. CES can take many forms, one of which is moral case deliberation[1] (MCD) (Molewijk et al. 2008). In an MCD, healthcare professionals jointly engage in a dialogue about a situation from their own clinical practice which they experienced as ethically challenging, under supervision of a trained facilitator and using a structured conversation method (Molewijk et al. 2008; Stolper 2015).

While the presence of and need for CES services like MCD is increasing (Dauwerse et al. 2014), empirical research about their quality and their impact on healthcare has been scarce (Pfäfflin et al. 2009; Schildmann & Vollmann 2010; Dauwerse et al. 2014; Molewijk et al. 2017). MCD evaluation research focusing on outcomes is important in order to know whether MCD actually *supports* healthcare professionals in dealing with ethical challenges, and if so, in which way. Furthermore, evaluation results can be used for the training of future MCD facilitators (Stolper 2015) and the implementation of MCD (Weidema 2014). Finally, evaluation results can inform the normative discussion what impact of MCD *should* be (e.g. which outcomes are appropriate and which are not?).

Recent evaluation research in the field of MCD showed positive results regarding the participant's need for and their satisfaction with the CES services (Lillemoen & Pedersen 2015; Weidema et al. 2015;2013; Janssens et al. 2016; Seekles et al. 2016; Silén et al. 2016; Molewijk et al. 2017; Spijkerboer et al. 2017). However, despite increasing attention for evaluating MCD itself, only few studies systematically evaluated the outcomes of MCD sessions. For instance, Lillemoen and Pedersen (2015) have evaluated ethics reflection groups by using qualitative research methods in which they asked 'What is the significance of ethics reflection groups on health care professionals' practice?'. Recently, Hem et al. (2018) have also studied the significance of ethics reflection groups in mental healthcare. Weidema and colleagues (2013) tried to measure the impact of MCD (described as 'harvest') by asking MCD participants to answer the question 'What changes would you apply to your practice after this session?'. In all studies, they found that the ethics reflection groups or MCDs positively influenced the cooperation among colleagues and made professionals better able to deal with ethical challenges

1 *Also described as 'ethics rounds' (Svantesson et al. 2008; Silén et al. 2016); 'ethics reflection groups' (Lillemoen & Pedersen 2015) and 'ethics case reflection sessions' (Bartholdson et al. 2018).*

in everyday practice (Weidema et al. 2013; Lillemoen & Pedersen 2015; Hem et al. 2018). Questions about the significance and harvest of MCD are relevant, but it remains unclear what these terms exactly entail. For future CES and MCD evaluation it is important to systematically develop clear conceptual categories which can be used within various European settings. This leads to questions such as: How should we define outcomes of MCD sessions and how should we conceptualize different categories of MCD outcomes? In literature, there exists no systematic conceptual analysis of MCD outcomes yet.

Since MCD aims to support healthcare professionals and because MCD focuses on the experiences and perspectives of the MCD participants themselves, it is important to involve actual MCD participants in empirical research about possible MCD outcomes. This does not imply that outcomes that are reported, experienced or valued by MCD participants should automatically become the *normative* goals of MCD. Yet, experiences from MCD participants play an important role in defining possible outcomes since they are the actual users of MCD. They can, based on their experiences with MCD, help in reporting which outcomes they experienced and how they think MCD outcomes are connected to one another.

In order to contribute to the professionalization of both MCD itself as well as the evaluation research of MCD, a European research project on outcomes of MCD has been started. In this project, an MCD evaluation tool called the 'Euro-MCD Instrument' has been developed (Svantesson et al. 2014). The Euro-MCD Instrument is a questionnaire for actual MCD participants and lists 26 possible outcomes of MCD, divided over 6 domains (Emotional support; Moral reflexivity; Moral attitude; Collaboration; Concrete results and Impact on organisational level) (Svantesson et al. 2014). MCD participants rate the 'perceived importance' of these 26 outcomes of MCD both before and after participation in a series of 4 to 8 MCD sessions. They also rate whether they actually 'experienced these outcomes within the MCD sessions and in daily practice' (Svantesson et al. 2014; De Snoo-Trimp et al. 2017). The list of 26 possible outcomes was established by a European research team (of which ACM is author of this paper); based on a combination of explorative literature review and a Delphi panel with European CES and MCD experts (Svantesson et al. 2014). Currently, a large European field study is carried out to collect empirical data and validate the Euro-MCD Instrument (De Snoo-Trimp et al. 2017).

Although the Euro-MCD Instrument asks for the input of MCD participants regarding their perceived importance and experience of MCD outcomes, MCD participants did

not play a role in the development of the instrument. Therefore, it is yet unknown what outcomes they would mention themselves and how they would categorize these outcomes. In order to explore and define possible MCD outcomes as mentioned by experienced MCD participants and to form an evidence-based categorization of these outcomes, the current study was performed. The ultimate goal of the larger Euro-MCD field study (of which this study was part of) was to improve and further validate the current Euro-MCD Instrument in order to professionalize future CES and MCD evaluation research. Therefore, we compared the findings with the original items of the Euro-MCD Instrument in the Discussion section.

METHODS

Steps of concept mapping

Concept mapping is a methodology for conceptualization and categorization of a complex topic (Trochim 1989; Kane & Trochim 2007). A 'collaborative, participatory process' takes place in a focus group, consisting of 6 qualitative and quantitative steps (using visualization techniques), as shown in Fig. 1 (Kane & Trochim 2007). Qualitative steps include brainstorming, structuring and interpretation while quantitative steps include the computation of a concept map. Focus group members are involved from step 2-5; from the initial brainstorming until the analysis of the final concept map, including the naming of the final categories. These steps took place during two sessions. The final result is a graphic representation of ideas (the concept map), build, understood and clarified by all focus group members.

We will now describe how we performed these six steps.

Preparation: focus and participants

In the preparation phase, the research team determined the focus for the concept mapping by articulating the *focus statement* (Kane & Trochim 2007): 'What are possible outcomes of Moral Case Deliberation?' We aimed to exclude both too abstract outcomes and too concrete outcomes, (e.g. about healthcare in general, or about a specific case). One member of our research team (ACM) was the facilitator.

The first step further consisted of selecting the participants. The aim in our study was to form a group with experienced MCD participants, preferably from many various settings where MCD is practiced and from diverse professional backgrounds. They were recruited by JCDST in two ways: 1) by inviting all trainees of the current Dutch national

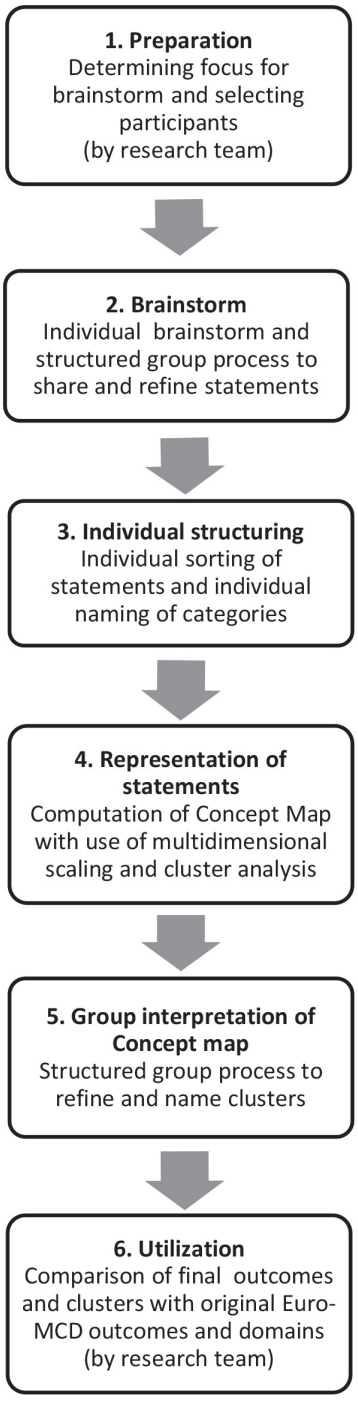

Figure 1 - Steps Concept Mapping
modified from Kane and Trochim (2007)

training program for becoming a MCD facilitator, and 2) by inviting members of the national network of certified and experienced MCD facilitators. Trainees needed to have extensive experience with participating in MCD sessions before the start of the training program (Stolper 2015). At the time of the focus group, the MCD facilitator training program was almost finished, therefore, the trainees were experienced and well-known with MCD.

Brainstorm

The second step formed the start of the actual concept mapping process. The aim was to generate a list of statements that 'ideally, will represent the entire conceptual domain for the topic of interest' (Kane & Trochim 2007).

During the first meeting, the facilitator (ACM) firstly asked focus group members to take 10-15 minutes to think of possible MCD outcomes individually. He then asked them to present their statements one by one. The statements were directly entered into a word processing program by a research team member (JCDST) and projected on a large screen. By this, all focus group members could see the statements and discuss the distinctiveness and clarity of them, as it was important that everyone understood and agreed on the generation of statements (i.e. that statements were not on the screen already or too vague to understand).

After the round in which participants shared their own statements, one member of our research team (JCDST) presented additional MCD outcomes from the Euro-MCD study that were not yet included in the list made during

the focus group. These outcomes came from the list of 26 items of the Euro-MCD Instrument and outcomes mentioned by Dutch respondents to the open question in the instrument asking for possible MCD outcomes (Svantesson et al. 2014). The characteristics of these respondents are shown in Appendix I. JCDST only presented outcomes that were not yet mentioned, and the focus group had the final say in adding the suggested outcome to the list, depending on their distinctiveness and clarity. By this, we aimed to get as rich data as possible.

The step of sharing and refining would finally result in a list of unique and clear statements. The facilitator (ACM) aimed to generate no more than 100 statements, in order to avoid practical difficulties with the next steps of the concept mapping process (Kane & Trochim 2007).

Individual structuring
In the third phase, focus group members were asked by the facilitator (ACM) as an individual task to structure the statements into piles 'in a way that makes sense to you' (Kane & Trochim 2007) and to give a unique name to each pile (without communicating with other focus group members). They were not allowed 1) to make a single pile including all statements; 2) to make as many piles as statements; and 3) to make a pile 'remaining/other statements'. Next, if focus group members wanted to make a pile including only one statement, they should still give this pile a unique name.

In our study, the research team printed all outcomes from the brainstorm on separate cards, and gave everyone the complete set of cards. After the individual sorting task, we collected all piles including names with paper clips and put them into envelopes; one envelope per focus group member.

Representation of statements
The fourth phase consisted of the computation of concept maps based on the thematic clusters (piles) made by all focus group members individually. This was done in-between the two sessions, in which the research team (JCDST and HCWDV) entered the piles from all members into a concept mapping software program, Ariadne (Severens 2015). This software program examines the frequency of any two statements occurring in the same pile. The number of similarities are then put into an aggregated group matrix, on which a Principal Component Analysis (PCA) was performed, resulting in a point map. PCA translates the correlations between statements into distances and coordinates on the point map (Trochim 1989). Statements that were put in the same pile by many members would be located close to each other on the map; statements that were not

put together in the previous phase or only by a few members would be located on the map with more distance. The software ignores the names given to the piles by the focus group members. Next, the software performs cluster analysis to make a cluster map, in which closely-related statements are represented as clusters. The number of clusters could be determined by the researchers and as such, different cluster maps could be presented. The research team chose a concept map with an ample number of clusters to take as starting point for the second session of the focus group. This concept map was chosen because it leaves room for focus group members to still merge clusters.

Group interpretation of concept map

A month after the first session, the second session was organized. In the fifth step, the concept map was discussed and interpreted with the focus group. Firstly, the point map and concept map were presented to the focus group. Secondly, focus group members were asked by the facilitator (ACM) to take some time to read all statements and explore their place on the map, and to write down possible names for each cluster. Thirdly, the focus group engaged in a dialogue about the map. Cluster by cluster, members presented their thoughts and names and tried to reach agreement on the final name of each cluster. This phase could also include refining clusters by changing the position of separate statements.

In our study, the research team showed the concept map on the screen and on paper for each focus group member. The facilitator (ACM) aimed to reach consensus among the participants on the final number and naming of clusters, by discussing them cluster by cluster. If no consensus could be achieved, the majority decided, but other research team members (JCDST and HCWDV) made a note of this. The facilitator of the focus group (ACM) invited members repeatedly to express their opinions, in particular if they disagreed with others regarding the number and naming of the clusters. Those who still disagreed after discussion could withdraw from further discussion on the naming or content of that specific cluster. All disagreements and withdrawals from discussions on clusters were reported by the research team.

Utilization

The final concept map can be used for planning and evaluation purposes. With regard to evaluation, it can be seen as a guide for measurement development, or as a framework for examining patterns of outcomes as it provides a clear overview of statements and their mutual relations (Kane & Trochim 2007). For instance, in developing a questionnaire, the concept map can be used as basis for building domains and topics of questions.

The research team compared the final statements and clusters of the concept map with the original outcomes and domains of the Euro-MCD Instrument. This will be described in the Discussion section.

Research ethics

Conform the ethical principles for medical research as stated in the Declaration of Helsinki (2013), all focus group members signed an informed consent form describing the purpose of the study and the way data would be collected and analyzed. All members were informed that participation was voluntary and that they could withdraw from participation in this study at any moment and without giving any reason. The collected data from focus group members was anonymized and inserted into the concept mapping software with codes not able to trace back to individual members.

RESULTS

In total, 12 experienced MCD participants, from a variety of professional backgrounds, took part in the concept mapping focus group. The characteristics of them are presented in Table 1. Almost all of them were MCD facilitators with an average of 5 year experience. They were all present in both sessions of the focus group, lasting 2 hours each.

Table 1 - Characteristics Focus group members (N=12)

Female/male	8/4
Mean age (range)	53 (31-64)
Mean working experience (range)	15 (2-30)
Facilitator of MCD/in training	9/3
Mean experience as facilitator (range)	5 (0-10)
Profession	1 Nurse 1 Physician 2 Spiritual Caregivers 3 Coaches 2 Researchers/Teachers 1 Manager 1 Head of Ethics Committee 1 Quality Officer

Settings where they facilitate MCDs: Elderly care, nursing homes, hospitals, care for mentally disabled, psychiatry, science, prisons, municipality, business, education

In the first session, the brainstorm phase resulted in a list of 85 unique and clear statements, according to the focus group members, as presented in Appendix II. From these 85, 68 came from the focus group members themselves. The other 17 statements

came from a list of 19 statements that was presented by the research team after the focus group had completed their own brainstorm phase. From these 17 statements, 11 came from the original Euro-MCD Instrument and 6 statements came from open answers of Dutch respondents to the Euro-MCD Instrument in an earlier study (their characteristics are shown in Appendix I). The 17 statements were adopted based on consensus among the focus group members, as they had the final say in adding the statement with regard to its distinctiveness and clarity.

All focus group members finished the step of individual structuring. They sorted the statements into 5-20 piles. Figure 2 shows the resulting point map, in which all 85 statements are represented. Their position is dependent on their relations with other statements. For example, the statements 'A concrete plan of action, a or b' (no. 10) and 'Plan of action on how to deal with damage' (no. 11) are located very close to each other on the point map since these statements were put into the same pile by 11 out of 12 focus group members.

The cluster analysis provided the possibility to construct 2 to 12 clusters, which were discussed with the research team (JDST, HCWDV, ACM). The concept map of 10 clusters was chosen as starting point for the next session of the focus group (see Fig. 3) because all clusters had at least 3 items and the more clusters a map has, the more possibilities participants have for merging clusters, which gave us more nuanced conceptual information.

The concept map with 10 clusters was discussed with the focus group in the second session, with the aim to find consensus on the number and naming of the clusters, as described in the Methods section. Focus group members were explicitly asked to express their (dis)agreement with categorizations and possible names of clusters. This was the case during the categorization or specification of a few clusters, which will be described to more detail below. In the end, after some statement replacements, consensus was achieved on the names and position of all statements in 8 final clusters. The final concept map is presented in Fig. 4, where the names of the clusters (defined by the focus group members) are added to the clusters of statements as described earlier. The striped arrows show which items have been replaced to another cluster, based on the group discussion, and the dashed circled statements represent statements that were discussed but not replaced. The final categorization of clusters and statements is presented in Table 2. We will now describe the 8 final clusters on which the group reached consensus in more detail, according to the order they were discussed in the focus group.

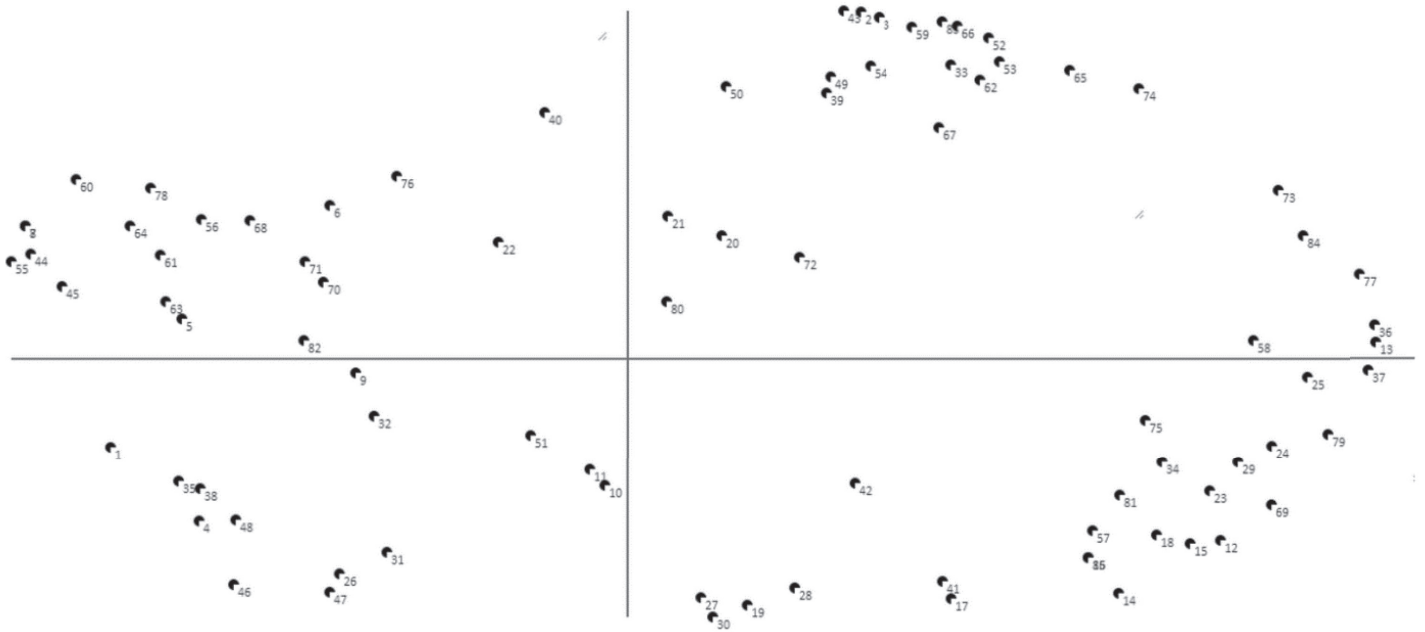

***Figure 2* – Point map based on the individual categorizations of focus group members**

Each point represents a statement from the brainstorm phase. Statements that are put in the same pile (during the previous step of individual sorting) by many members will be located close to each other on the map; statements that are not put together in the same pile or only by a few focus group members will be located on the map with more distance.

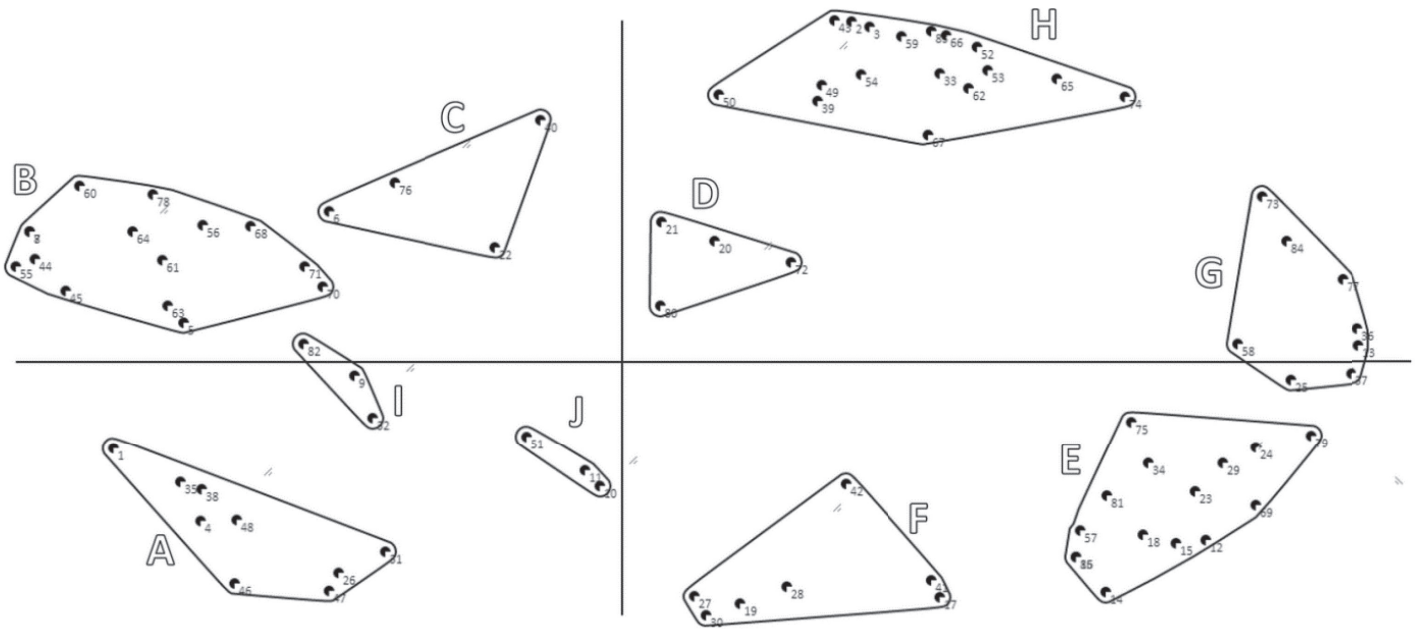

Figure 3 **– Concept map with 10 clusters (A-J) of MCD outcomes, based on individual categorizations of focus group members**

Each point represents a statement from the brainstorm phase. Statements that are put in the same pile (during the previous step of individual sorting) by many members will be located close to each other on the map; statements that are not put together in the same pile or only by a few focus group members will be located on the map with more distance. The contoured forms represent clusters of closely-related statements, as made by the concept mapping software program (Ariadne©). The letters A to J refer to the 10 clusters in the order of how they were presented for discussion during the second session of the focus group.

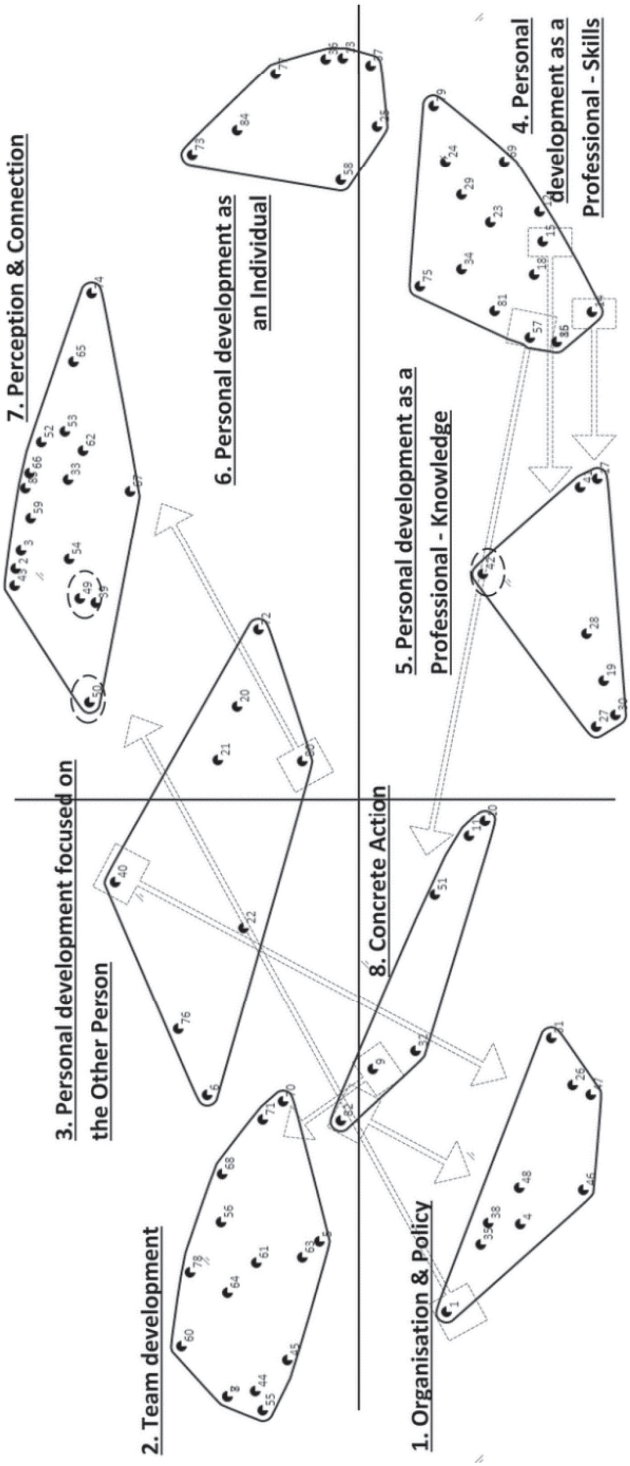

***Figure 4* - Concept map with 8 final clusters, including names and item replacements, based on group interpretation.** *Each point represents a statement from the brainstorm phase. Statements that are put in the same pile (during the previous step of individual sorting) by many members will be located close to each other on the map; statements that are not put together in the same pile or only by a few focus group members will be located on the map with more distance. The contoured forms represent clusters of closely-related statements, as made by the concept mapping software program (Ariadne©). The text next to each cluster represents the final name given to that cluster by the focus group. Statements in dotted boxes were discussed during the focus group and considered to fit better in another cluster; the striped arrow shows into which cluster it was reallocated. Statements circled by dashed lines were discussed during the focus group but not replaced (see also Table 2)*

Table 2 – Final clusters of MCD outcomes, including items and comparison with Euro-MCD items and domains

Clusters	# Items ***Original items from Euro-MCD Instrument**	
1. Organisation and Policy *(A in Fig. 3)*	4	Support to proceed in a particular direction
	26	Identify relevant themes
	31	Clarify what good care entails
	35	Contribute to organisational change or cultural shift
	38	Support in the development of new products and services
	40	Less absence due to sickness
	46	Prevention of similar case/event in the future
	47	Anticipate, show restraint in similar case/event
	48	Initiate formulation of policy
	82	Better quality of work
2. Team development *(B. in Fig. 3)*	5	Accepting an outcome
	7	Unity in teams/increased mutual cohesion
	8	Team spirit/sense of belonging to group
	9	Difficult themes can become subject of discussion
	44	Team continues with method of examination as in MCD
	45	Team jointly determines team values
	55	Less hierarchical interaction
	56	Gentler communication
	60	Get to know each other better
	61	Enhance professional identity
	63	Commitment to the organisation
	64	Help each other more readily
	68	**More open communication***
	70	**Greater opportunity for everyone to have their say***
	71	**Share difficult emotions and thoughts***
	78	**Mutual respect***
3. Personal development focused on the other person *(C and D in Fig. 3)*	6	Curiosity about the other person
	20	More sensitive to the perspective of another person
	21	Accepting other person's perspective
	22	Appreciate other person's perspective
	72	**I listen more seriously to others' opinions***
	76	**Manage disagreements more constructively***
4. Personal development as a professional, focused on Skills *(E in Fig. 3)*	14	Learn what the relevant norms and values are
	15	Knowledge of ethical concepts
	17	Understanding which values and norms are in conflict with each other
	19	Understanding of diversity of norms and values, interpersonal
	24	Postpone personal judgments about situations
	27	Identify recurring norms and values in particular themes
	28	Identify how moral issues are dealt with
	30	Tools to reflect on moral dilemmas
	41	Clarity about what the issue is and what is at stake
	42	More awareness of unequal balance of power
5. Personal development as a professional, focused on Knowledge *(F in Fig. 3)*	12	Dilemma awareness, increased moral sensitivity
	23	Postpone personal judgments about individuals
	29	Reflexive skills
	34	Master at asking questions
	69	**Increased awareness of complexity of situation***
	75	**Examine practice/policies critically***
	79	Change your mind
	81	Take a step back to look at problem from a distance
	85	Understanding of role-related quality of norms and values

Comparable to which Euro-MCD item according to research team; *empty= no comparable item found (for all items except the 11 Euro-MCD items that were explicitly added in the focus group)*	From which Euro-MCD Domain
Enables to decide on concrete actions	*Concrete Results*
Identify core ethical question	*Moral Reflexivity*
-	
Contribute to development of practice/policies	*Organisational Level*
Contribute to development of practice/policies	*Organisational Level*
-	
Become aware of recurring ethical situations	*Organisational Level*
Become aware of recurring ethical situations	*Organisational Level*
Contribute to development of practice/policies	*Organisational Level*
-	
-	*Enhanced Collaboration*
-	*Moral Attitude*
-	
-	*Enhanced Collaboration*
-	*Enhanced Collaboration*
-	*Emotional Support*
-	*Enhanced Collaboration*
-	
Better mutual understanding	
Better understanding of being good professional	
-	
-	
Not applicable – original Euro-MCD item	
Not applicable – original Euro-MCD item	
Not applicable – original Euro-MCD item	
Not applicable – original Euro-MCD item	
-	*Moral Reflexivity*
See the situation from different perspectives	
-	*Moral Attitude*
-	*Enhanced Collaboration*
Not applicable – original Euro-MCD item	
Not applicable – original Euro-MCD item	
-	*Moral Reflexivity*
Enhanced understanding of ethical theories	
-	*Moral Reflexivity*
-	
-	*Moral Reflexivity*
Identify core ethical question	*Moral Reflexivity*
-	
Skills to analyze	
Identify core ethical question	
-	
Identify core ethical question	*Moral Reflexivity*
More awareness of preconceived notions	*Moral Attitude*
Skills to analyze	*Moral Reflexivity*
-	
Not applicable – original Euro-MCD item	*Moral Reflexivity*
Not applicable – original Euro-MCD item	*Organisational Level*
-	
-	
-	

Table 2 –Continued

Clusters	# Items ***Original items from Euro-MCD Instrument***	
6. Personal development as an individual *(G in Fig. 3)*	13	More awareness of personal judgment
	25	Examine personal judgment
	36	Reduce blind spots
	37	Increase awareness of your blind spots
	58	Creative thinking
	73	**Increased awareness of own emotions***
	77	**Gain more clarity about own responsibility***
	84	Become more honest
7. Perception and Connection *(H in Fig. 3)*	1	Substantiate decision made by staff member
	2	Feel you do not have to deal with the problem alone
	3	Support
	33	Relieves stress for case presenter
	39	Delight in astonishment about differences
	43	Person presenting the case feels s/he is heard
	49	Disappointment about outcome
	50	Sense of wasting time
	52	Recognition brings sense of relief
	53	Sense of relief
	54	Fewer psychological complaints
	59	Enjoy your work more
	62	Increased motivation regarding work
	65	Feel enriched by unexpected new insights
	66	You feel taken care of, nurturing for your inner self
	67	Be able to move on
	74	**Strengthened self-confidence***
	80	Confirmation of having made the right decision
	83	To feel safe
8. Concrete action *(I and J in Fig. 3)*	10	A concrete plan of action, a or b
	11	Plan of action on how to deal with damage
	32	Look for the answer for the client/central person in the case
	51	More awareness how personal values influence working together
	57	Increase range of action

 # The numbers of the items correspond to the numbering in Figure 2

Comparable to which Euro-MCD item according to research team; empty= no comparable item found (for all items except the 11 Euro-MCD items that were explicitly added in the focus group)	*From which Euro-MCD Domain*
More awareness of preconceived notions	*Moral Attitude*
-	
-	*Emotional Support*
-	*Moral Attitude*
-	
Not applicable – original Euro-MCD item	
Not applicable – original Euro-MCD item	
-	
Consensus in how to manage the situation	*Concrete Results*
-	
-	*Emotional support*
Better manage stress from the situation	
-	*Emotional Support*
-	
-	*Emotional Support /*
-	*Moral Attitude*
-	
-	
-	
-	
-	
-	
-	
-	
Not applicable – original Euro-MCD item	
-	
Feel more secure to express doubts / Courage to express doubts or uncertainty	
Enables to decide on concrete actions	*Concrete Results*
-	
-	*Concrete Results*
-	
Find more courses of action	

Cluster 1 – Organisation and policy

The first discussed cluster was cluster A in Fig. 3. It was considered as a diverse cluster according to the focus group members. The statements refer to the content of care, development of policies, vision and the organisation as such. The name 'Organisation and policy' was suggested and agreed upon. Some members shortly discussed whether this name is sufficiently linked to MCD, but the group decided that because the outcomes are defined as outcomes of MCD, the cluster name intrinsically refers to MCD. Regarding the statements, item 1 ('Substantiate decision made by staff member') was not perceived as linked to the cluster name, therefore it was removed to cluster 7 (later named as 'Perception and connection').

Cluster 2 – Team development

The focus group members quickly reached consensus on the name of the second cluster (B in Fig. 3): 'Team development'. According to the focus group members, statements within this cluster refer all to the development as a team and none needed to be replaced or reconsidered.

Cluster 3 – Personal development focused on the other person

The majority of the group proposed to merge clusters C and D (Fig. 3). Some also wanted to integrate it in cluster 2 'Team development', but according to others this should form a separate cluster as it is about individual development, instead of group development, but it is linked to the team. Therefore the name 'Personal development focused on the other person' was suggested. Two focus group members did not think cluster D should be a cluster at all, as its statements would better fit in other clusters. In the end, the majority agreed on merging cluster C and D into one cluster and to remove several statements from cluster D to other clusters. This is shown in Fig. 4.

Cluster 4 and 5– Personal development as a professional, focused on skills (4) and knowledge (5)

These clusters correspond with cluster E (4) and F (5) in Fig. 3. During the focus group, some members disagreed on the question if cluster E and F should be merged or not. A possible name for the merged cluster was suggested: 'ethical awareness'. But after an extensive discussion, it was decided that although both clusters refer to personal development as a professional, they should remain separate clusters because cluster 4 (E) emphasizes the skills and cluster 5 (F) emphasizes the knowledge within personal development. One focus group member did not agree upon this decision. Some statements were moved from E to F and vice-versa, and one statement (57, 'Increase range of action') was moved to cluster 8 (later named as 'Concrete action').

Cluster 6 – Personal development as an individual

The statements in cluster 6 (G in Fig. 3) involve self-reflection, self-insight and personal development in general, according to the focus group members. They considered whether or not it should be merged with cluster 5 ('Personal development as a professional – skills'), but statements were not seen as necessarily linked to professional tasks. One focus group member said that he had developed several skills – through participation in MCD – which he also uses in the non-professional context. Consensus among all members was found on the following name for this separate cluster: Personal development as an individual.

Cluster 7 – Perception and connection

The focus group interpreted the statements within cluster 7 (H in Fig. 3) as emotions, feelings, support and contact with colleagues. They shortly discussed whether the two 'negative' statements really belong in this cluster: 'Disappointment about outcome' (no. 49) and 'Sense of wasting time' (no. 50). The cluster name 'Perception and connection' was suggested by a focus group member and the group eagerly agreed with this name, as this name leaves room for 'perceiving' both positive as well as negative outcomes.

Cluster 8 – Concrete action

This cluster refers to clusters I and J in Fig. 3. According to some focus group members, these clusters should be merged, but others perceived them as separate clusters. Two members thought the clusters should not exist at all since these were too small with too diverse statements, and they did not contribute to the further discussion about the naming of this cluster. The discussion with the remaining members was mainly about the question: do the statements refer to skills or to acting? They finally agreed on the latter; the statements are about concrete actions and practical acting. The majority of the focus group therefore decided to name the cluster 'Concrete action'. According to some members, this cluster is highly important as outcomes referring to choices, decisions and practical acting did not yet have a clear place in the focus group. Several statements were moved to other clusters (see Fig. 4 and Table 2).

DISCUSSION

In this study, experienced MCD participants from a broad range of settings where MCD is practiced, explored possible MCD outcomes using the qualitative and quantitative method of concept mapping (Trochim 1989). The concept mapping focus group with 12 members provided a list of 85 possible outcomes. In the end, a clear categorization of

8 clusters that comprehends 85 possible outcomes was achieved: 1) Organisation and policy; 2) Team development; 3) Personal development focused on the other person; 4) Personal development as professional, focused on skills; 5) Personal development as professional, focused on knowledge; 6) Personal development as an individual; 7) Perception and connection; and 8) Concrete action.

Reflection on focus group process

The focus group members came from a variety of professional backgrounds and had broad experiences with MCD participation in different settings (even outside healthcare). Due to this, they brought a large variety of statements into the brainstorm phase and at the same time were able to critically analyze the final list of statements. During the step in which they had to make piles of the statements, the number of piles differed. One focus group member distinguished only 2 thematic clusters covering all 85 outcomes while other distinguished up to 20 thematic clusters. A step for step dialogue in which they had the possibility to explain how they thought about the differentiation of clusters, relatively easily led to an agreement about how many clusters there should be. Furthermore, a surprising finding was that with regard to some clusters (Organisation and policy, Team development, Personal development as an individual and Perception and connection), consensus was easily reached, possibly indicating that the cluster was recognizable as a specific theme and probably clearly enough constructed. However, the discussion about the other clusters took a while, and some focus group members did not contribute to the formulation of cluster names as they did not support the positioning of some clusters. Nevertheless, in the end, all focus group members agreed on the final naming and categorizing of the 8 clusters, despite the minor disagreements during the cluster discussions.

When exploratively reviewing literature, we found some (but not all) of these clusters as well. For instance, in the focus group study of Hem et al. (2018), participants of ethics reflection groups (which is similar to MCD) described that they experienced an increased awareness of ethical issues, 'professional development' and better collaboration among their colleagues, in which we see a clear link with two clusters in our study, namely Team development and Personal development as a professional. A better team collaboration and the impact on personal development have also been suggested by other studies (Weidema et al. 2013; Lillemoen & Pedersen 2015; Spijkerboer et al. 2017). Next, in the study of Seekles et al. (2016), professionals working in the Dutch Health Care Inspectorate reported to feel more secure after participating in MCDs, which refers to several statements in the cluster Perception and connection in our study. Furthermore, Lillemoen and Pedersen (2015) reported how participation in

ethics reflection groups contributed to 'important changes in practice', for example by improving their attitude towards and cooperation with patients and their relatives. This impact on concrete practice shows a link with the cluster Concrete action in our study. Thus, the clusters found in our study can to some extent be confirmed by other studies. However, all of these studies did not explicitly focus on the naming and meaning of the clusters and the mutual relationship between statements within clusters, which was systematically explored in the current study. Especially with regard to developing tools to evaluate MCD outcomes, our findings are relevant to operationalize and concretely define what (categories of) MCD outcomes mean according to a heterogeneous group of experienced MCD participants.

Comparing focus-group clusters with Euro-MCD domains

According to the second aim of this paper and the sixth step of concept mapping (Kane & Trochim 2007) and in light of the ultimate goal of the Euro-MCD field study, we would like to compare the outcomes and clusters as defined in the two concept mapping focus group sessions with outcomes from the Euro-MCD study (Svantesson et al. 2014; De Snoo-Trimp et al. 2017). During the focus group, 15 out of the 26 items in the Euro-MCD Instrument were already spontaneously mentioned in the brainstorm phase, and 11 of these 26 items were added afterwards (i.e. when presented as possible outcomes, the focus group members approved these 11 Euro-MCD outcomes as relevant). As shown in Table 2, these 11 added outcomes came from different Euro-MCD domains, but it is remarkable that especially items from the domain of Collaboration were added at that moment; hence, they were not yet mentioned in the preceding brainstorm phase. The fact that almost no items from the domains of Concrete results, Moral reflexivity and Moral attitude were added, means that these or similar outcomes were already brought up during the brainstorm phase, which might point to a tendency of the focus group members to think of outcomes linked to these domains.

When comparing the final cluster names with the names of the Euro-MCD domains, several links can be made: Concrete action with Concrete results; Organisation and policy with Impact on organisational level; Team development with Collaboration. Furthermore, when looking at the Euro-MCD domain Emotional support, we see a link with our cluster Perception and connection, as both include feelings and emotions like 'self-confidence', 'managing stress' and 'feeling secure'. Finally, the Euro-MCD domains Moral reflexivity and Moral attitude can be compared with the clusters about personal development (clusters 3-6), as they all include outcomes referring to self-reflection, like 'I gain more clarity about my own responsibility in the ethically difficult situations' and 'Increases my awareness of the complexity of the situation'. Fortunately, we can

therefore conclude that the original categorization of MCD outcomes by MCD experts in the Euro-MCD Instrument can be confirmed to some extent, despite the fact that their categorization was not yet based on empirical data at that time (Svantesson et al. 2014).

However, several differences can be found as well when comparing the Euro-MCD domains with the clusters of the concept map. Firstly, the Euro-MCD domains Emotional support and Collaboration seem to be reflected in more than 2 focus group-clusters, namely Team development, Personal development focused on the other person and Perception and connection. Secondly, the Euro-MCD domains Moral reflexivity and Moral attitude cannot be recognized easily in the focus group-clusters, since terms like 'reflexivity' or 'attitude' were not used. These domains are about analytic skills, awareness and understanding of ethically difficult situations. Yet, the focus group members made a distinction between skills and knowledge in their separate clusters about personal development as a professional (4 and 5). To conclude, we can say that the focus group members defined additional and more detailed categories of outcomes that match with outcomes from the Euro-MCD domains Moral reflexivity and Moral attitude, namely based on whether the outcome was about personal or professional development, about oneself or directed to the other, and about skills or about knowledge. This resulted in 4 separate clusters (3-6) for personal and professional development, and skills and knowledge. This difference in nuances might be explained by the fact that the definition of the Euro-MCD domains of Moral reflexivity and Moral attitude was based on theory, literature and the opinion of MCD experts (Svantesson et al. 2014), while the naming of the 4 focus group clusters about personal development in the current study was only based on the practical experience of actual MCD participants. In our opinion, this might show the added value of both using the method of concept mapping and giving voice to the concrete users of MCD focusing on their experiences with participating in MCD sessions.

Negative outcomes of MCD

An interesting difference between this study and the Euro-MCD Instrument is the formulation and position of possible negative outcomes ('Disappointment about outcome' and 'Sense of wasting time') in the focus group cluster Perception and connection, while the Euro-MCD domains only contain positively formulated outcomes. The formulation of these two negative outcomes was a surprising finding in our study, although the number of two might be a quite low number. We think and literature shows that MCD might cause negative outcomes as well, like frustrations about the lack of solutions (Svantesson et al. 2008) or not experiencing changes in daily work (Weidema et al. 2013; Silén et al. 2016). A reason for this could be that defining possible outcomes

of MCD is closely linked to how participants experienced the MCDs they participated in. The focus group members in our study all had extensive experience with MCD and did thus not base their thoughts on only one positive (or negative) MCD. It is important for future research on outcomes of MCD to make sure if outcomes of MCD really involve *outcomes* and not the *process* of MCDs themselves. Future qualitative studies should investigate what kind of negative outcomes MCD participants report, whether they refer to literally negative or harmful outcomes or a lack of expected positive outcomes, and in which way they are related to MCD as such. This is important in order to avoid a bias in presenting (only positive) MCD evaluation results. Furthermore, negative MCD outcomes could be helpful in improving, adjusting or not using MCD as ethics support mechanism. Furthermore, we should reflect upon the question whether we should pay attention to negative MCD outcomes in the further validation of the Euro-MCD Instrument.

Strengths

One of the strengths of this study was the fact that the concept mapping procedure consisted of structured and systematic conceptual-analytical steps in which qualitative and quantitative measures were integrated within a reflective open dialogue. A main strength of our study was the composition of the focus group: members came from various professional backgrounds, in diverse settings of MCD, both inside and outside healthcare, and were all very experienced as participants in MCD. As such, they were no specific 'experts' in evaluation research, instrument development, but people from a broad range of settings were MCD is practiced. They were all present and actively involved in both sessions of the focus group, and they all had a critical and analytical yet constructive contribution. This might be caused by the fact that they were experienced MCD participants and thus were used to group sessions with equal participation, a critical dialogue, being open towards different perspectives and letting others express their thoughts. The final concept map with named clusters is a product of the participants themselves, as it was based on statements that they generated in their own words, with extra input from the original Euro-MCD. Furthermore, a methodological strength was that we were able to complement the brainstorm among the focus group members with data from the large Euro-MCD field study as well, in order to get as rich data as possible. Lastly, the focus group members achieved a relatively strong agreement on the final names and categorization of the clusters, resulting in an experience- and consensus-based categorization of MCD outcomes.

Limitations

Yet, our study has limitations as well. The study contained only one focus group consisting of two sessions in only one country, due to limited time and financial resources. Since we needed experienced MCD participants, the Netherlands was a good candidate for performing this study as MCD is implemented in this country for a long time (Dauwerse et al. 2014). It is important to know whether MCD participants from other countries might come up with similar MCD outcomes, not only because of cultural differences but also because of possible differences in how MCD is seen and performed. Thus, in developing instruments to measure outcomes of CES interventions like MCD, data from other countries should also serve as an important basis.

Conclusions

On the bases of a Dutch focus group study with experienced MCD participants, this paper presented 8 thematic categories for *possible* MCD outcomes with use of the qualitative and quantitative method of concept mapping. Based on these descriptive results, in a future empirical-ethics study, one can start to reflect upon the normative question whether possible outcomes are also desirable outcomes, and for which reason. The study provides valuable lessons for further evaluation research on outcomes of CES services and outcomes on MCD in general. Most importantly, the current study confirms that outcomes of MCD can be categorized in clusters referring to the personal development (both as an individual as well as a professional, including emotions, skills and knowledge), team development, the organisational level and the concrete case-level. Moreover, according to the focus group members in the current study, several (clusters of) outcomes of MCD are related to the cooperation with colleagues, and even feelings and emotions are involved here (in the cluster Perception and connection). Furthermore, MCD could have an impact on the way participants would act in practice and on policy making at the organisational level. Therefore, in developing measurement tools, it is important to be explicit if an outcome refers to knowledge, or skills, to the person him/herself or to his or her professional role, or to the team, organisation or the specific case.

According to the ultimate goal to further validate the Euro-MCD Instrument of 2014 (Svantesson et al. 2014), in the near future, a new version of the Euro-MCD Instrument for evaluating MCD outcomes will get presented, being both evidence-based and experience-based. This will make it possible to perform new evaluation studies and get insight in the actual impact of MCD within the daily practice of healthcare professionals in European healthcare.

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APPENDIX I – Characteristics of Dutch respondents in Euro-MCD study

	T.0 (N=384)	T.1 (N=232)	T.2 (N=53)
Female N (%)	236 (68)	121 (67)	28 (61)
Age mean (range)	42 (22-65)	44 (21-75)	46 (25-65)
Years of experience mean (range)	16 (0-44)	16 (1-44)	19 (1-44)
Profession N (%)			
Nurse[1]	171 (45)	67 (29)	31 (59)
Doctor/specialist/psychiatrist	25 (7)	11 (5)	0
Therapist[2]	119 (31)	110 (47)	9 (17)
Manager[3]	24 (6)	15 (7)	4 (8)
Others[4]	35 (9)	18 (8)	1 (2)
Participants per setting N (%)			
Community care services	9 (2)	4 (2)	2 (4)
Somatic hospital care	98 (26)	35 (15)	0
Psychiatric care	213 (56)	148 (64)	31 (59)
Mentally disabled care	49 (13)	26 (11)	12 (23)
Health Inspection/Science	15 (4)	19 (8)	8 (15)
Institutions N	12	10	5

[1]Including registered nurses; assistant nurses, support workers and psychosocial workers,
[2]Including physiotherapists; psychologists; spiritual caregivers; social workers
[3]Including head of departments and policy makers,
[4]Including volunteers, clients, researchers, trustees, secretary and interns

This overview shows the characteristics of Dutch healthcare professionals who participated in the Euro-MCD study. In this study, they completed a questionnaire (the Euro-MCD Instrument). This questionnaire includes an open question regarding possible outcomes of moral case deliberation, defined and perceived as important by the respondent. The answers on this question were used in the current study.

APPENDIX II – List of outcomes of Moral case deliberation
Here, the list of 85 outcomes of Moral case deliberation is presented, as identified and defined by the participants during the brainstorm phase of the concept mapping focus group.

English (translated by professional translator)

1. Substantiate decision made by staff member
2. Feel you do not have to deal with the problem alone
3. Support
4. Support to proceed in a particular direction
5. Accepting an outcome
6. Curiosity about the other person
7. Unity in teams/increased mutual cohesion

8. Team spirit/ sense of belonging to group
9. Difficult themes can become subject of discussion
10. A concrete plan of action, a or b
11. Plan of action on how to deal with damage
12. Dilemma awareness, increased moral sensitivity
13. More awareness of personal judgment
14. Learn what the relevant norms and values are
15. Knowledge of ethical concepts
16. Understanding of interaction between norms and values
17. Understanding which values and norms are in conflict with each other
18. Understanding of diversity of norms and values, intrapersonal
19. Understanding of diversity of norms and values, interpersonal
20. More sensitive to the perspective of another person
21. Accepting other person's perspective
22. Appreciate other person's perspective
23. Postpone personal judgments about individuals
24. Postpone personal judgments about situations
25. Examine personal judgment
26. Identify relevant themes
27. Identify recurring norms and values in particular themes
28. Identify how moral issues are dealt with
29. Reflexive skills
30. Tools to reflect on moral dilemmas
31. Clarify what good care entails
32. Look for the answer for the client/central person in the case
33. Relieves stress for case presenter
34. Master at asking questions
35. Contribute to organisational change or cultural shift
36. Reduce blind spots
37. Increase awareness of your blind spots
38. Support in the development of new products and services
39. Delight in astonishment about differences
40. Less absence due to sickness
41. Clarity about what the issue is and what is at stake
42. More awareness of unequal balance of power
43. Person presenting the case feels s/he is heard
44. Team continues with method of examination as in moral case deliberation
45. Team jointly determines team values
46. Prevention of similar case/event in the future
47. Anticipate, show restraint in similar case/event
48. Initiate formulation of policy

49. Disappointment about outcome
50. Sense of wasting time
51. More awareness how personal values influence working together
52. Recognition brings sense of relief
53. Sense of relief
54. Fewer psychological complaints
55. Less hierarchical interaction
56. Gentler communication
57. Increase range of action
58. Creative thinking
59. Enjoy your work more
60. Get to know each other better
61. Enhance professional identity
62. Increased motivation regarding work
63. Commitment to the organisation
64. Help each other more readily
65. Feel enriched by unexpected new insights
66. You feel taken care of, nurturing for your inner self
67. Be able to move on
85. Understanding of role-related quality of norms and values

From Euro-MCD Instrument:

68. More open communication
69. Increased awareness of complexity of situation
70. Greater opportunity for everyone to have their say
71. Share difficult emotions and thoughts
72. I listen more seriously to others' opinions
73. Increased awareness of own emotions
74. Strengthened self-confidence
75. Examine practice/policies
76. Manage disagreements more constructively
77. Gain more clarity about own responsibility
78. Mutual respect

From open answers Euro-MCD Field study:

79. Change your mind
80. Confirmation of having made the right decision
81. Take a step back to look at problem from a distance
82. Better quality of work
83. To feel safe
84. Become more honest

7

General discussion

Moral competence, moral teamwork and moral action – the European Moral Case Deliberation Outcomes (Euro-MCD) Instrument 2.0 and its revision process

De Snoo-Trimp J.C., De Vet H.C.W., Widdershoven G.A.M.,
Molewijk A.C. & Svantesson M. (2020).

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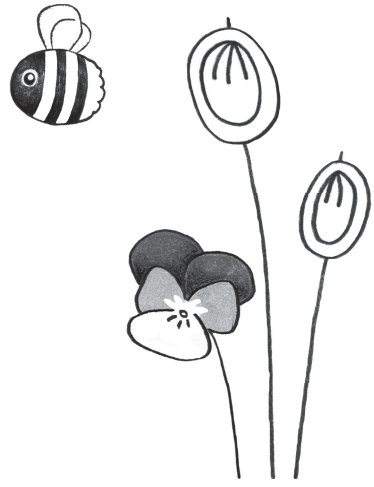

ABSTRACT

Background: Clinical ethics support (CES) services are offered to support healthcare professionals in dealing with ethically difficult situations. Evaluation of CES is important to understand if it is indeed a supportive service in order to inform and improve future implementation of CES. Yet, methods to measure outcomes of CES are scarce. In 2014, the European Moral Case Deliberation Outcomes Instrument (Euro-MCD) was developed to measure outcomes of moral case deliberation (MCD). To further validate the instrument, we tested it in field studies and revised it. This paper presents the Euro-MCD 2.0 and describes the revision process.

Methods: The revision process comprised an iterative dialogue among the authors as Euro-MCD-project team, including empirical findings from six Euro-MCD field-studies and input from European experts in CES and theory. Empirical findings contained perceptions and experiences of MCD outcomes among healthcare professionals who participated in MCDs in various settings in Norway, Sweden and the Netherlands. Theoretical viewpoints on CES, literature on goals of CES and MCD and ethics theory guided the interpretation of the empirical findings and final selection of MCD outcomes.

Results: The Euro-MCD 2.0 Instrument includes three domains: Moral competence, Moral teamwork and Moral action. Moral competence consists of items about moral sensitivity, analytical skills and virtuous attitude. Moral teamwork includes open dialogue and supportive relationships and Moral action refers to moral decision-making and responsible care. During the revision process, we made decisions about adding and reformulating items as well as decreasing the number from 26 to 15 items. We also altered the sentence structure of items to assess the current status of outcomes (e.g. 'now') instead of an assumed improvement over time (e.g. 'better') and we omitted the question about perceived importance.

Conclusions: The Euro-MCD 2.0 is shorter, less complex and more strongly substantiated by an integration of empirical findings, theoretical reflections and dialogues with participants and experts. Use of the Euro-MCD 2.0 will facilitate evaluation of MCD and can thereby monitor and foster implementation and quality of MCD. The Euro-MCD 2.0 will strengthen future research on evaluation of outcomes of MCD.

BACKGROUND

Clinical ethics support (CES) services aim to help healthcare professionals in dealing with ethically difficult situations. These situations can occur on a daily basis and may involve personal doubts or team disagreements on what good care would entail here. CES is offered in various forms, for instance through individual ethics consultants who can be called in for ethical guidance or advice (Aulisio et al. 2003), ethics committees who may discuss the situation as a group of experts, give advice or develop policies (Slowther et al. 2004), or moral case deliberations (MCD) with a group of healthcare professionals (Molewijk et al. 2015).

In the last decades, CES services have become a common service in many healthcare settings. In North-European countries, especially in the Netherlands, MCD is a predominant type of CES (Dauwerse et al. 2014). MCD, also named as ethics case reflection (Bartholdson et al. 2018), ethics rounds (Silén et al. 2015) and ethics reflection groups (Lillemoen & Pedersen 2015), concerns a group dialogue among healthcare professionals on a moral question about a concrete difficult situation from their practice (Molewijk et al. 2008; Molewijk et al. 2015; Svantesson et al. 2018). The dialogue usually takes about 45-90 minutes and is led by a facilitator. The facilitator does not provide any advice regarding what should be done in the particular case, as expertise and moral wisdom is considered to be present among the participants themselves (Widdershoven & Molewijk 2010). Participants are encouraged by the facilitator in digging for, finding and formulating an answer to the moral question, by clarifying relevant facts and perspectives, reflecting upon one's own and each other's viewpoints and deliberating about possible consensus and ways of acting. During this process, participants should have equal space for having a say and the reflection should stay connected to the facts of the situation (Molewijk et al. 2015). Various conversation methods and facilitation styles exist to structure the process (Van Dartel & Molewijk 2014; Molewijk et al. 2015; Rasoal et al. 2017).

Evaluation of CES is important in order to know whether CES reaches the presumed goals of supporting healthcare professionals. Evaluation research is also needed to get a better understanding of the value of CES, which may contribute to monitor and foster its implementation (i.e. providing time, people and space) (Silén et al. 2015; Schildmann et al. 2019). Furthermore, ethics support staff are increasingly asked to demonstrate the impact of CES in order to justify their position within the healthcare system (Fox & Arnold 1996; Craig & May 2006; Haan et al. 2018; Schildmann et al. 2019). Another reason for evaluation research is to further reflect upon and improve the quality of CES

itself (Molewijk et al. 2017). Empirical evidence for the impact of CES in general is scarce (Haan et al. 2018; Schildmann et al. 2019). CES is both rather novel as well as complex in its nature as described by Schildmann and colleagues (2019). It involves multiple interactions between various actors at different levels (i.e. personal, professional and organizational); it requires specific expertise and can be targeted to various groups, both in and outside the hospital (Schildmann et al. 2019). Since CES is used in various forms and for various purposes, it may result in a variety of possible outcomes and it might be difficult to determine how a specific form of CES leads to a specific outcome (Svantesson et al. 2014;2018; Schildmann et al. 2019). Hence, uncertainty exists on how to establish the link between method of CES (i.e. MCD) and actual outcomes in daily practice (Svantesson et al. 2014; Molewijk et al. 2017; Schildmann et al. 2019).

As a response to the need for valid methods for evaluation research, the European Moral Case Deliberation Outcomes (Euro-MCD) Instrument was developed by some members of our project team (BM, GW and MS) to assess outcomes of MCD (Svantesson et al. 2014). The Euro-MCD Instrument presents a wide range of possible outcomes and asks participants to rate both importance and experience of these outcomes (Svantesson et al. 2014). The presented outcomes in the Euro-MCD Instrument were based on an explorative literature review, a Delphi-expert panel and content validity testing (Svantesson et al. 2014).

Recently, we conducted several field studies (see Table 1) using the Euro-MCD Instrument to assess whether healthcare professionals perceived the presented outcomes as important, to examine their experiences of outcomes and to examine the clustering of items of the instrument (De Snoo-Trimp et al. 2017;2018;2019; Silén & Svantesson 2019; Svantesson et al. 2019). Based on this process of field-testing, time is ripe to present a revision of the Euro-MCD Instrument.

The twofold aim of this paper is 1) to present the revised Euro-MCD 2.0 Instrument, and 2) to describe the revision process.

METHODS

The core of the revision process of the Euro-MCD Instrument was a continuous dialogue in which we combined empirical findings with theoretical reflections, as visualized in Figure 1. Empirical findings concerned mixed-methods field studies on the prioritized and experienced outcomes of MCD participants and the factor structure of the Euro-

MCD Instrument. Theoretical reflections were based on relevant literature on outcomes, goals, ethics theory and theoretical viewpoints on CES in general and MCD in particular. In a further step, results were discussed with European experts in CES in a focus group meeting. Their views were integrated in the revision process.

The original Euro-MCD Instrument from 2014

The Euro-MCD Instrument (2014-version) consisted of open and closed questions. First, two open questions were posed to respondents asking to describe important and experienced outcomes in their own words. Closed questions concerned a list of 26 possible outcomes of MCD. These 26 outcomes were classified in six domains: 1) Enhanced emotional support; 2) Enhanced collaboration; 3) Improved moral reflexivity; 4) Improved moral attitude; 5) Impact on the organizational level and 6) Concrete results. For each outcome, the respondent was asked to rate the degree of *experience* on a four point Likert scale, considering a) the MCD sessions and b) daily practice. The respondent was further asked to rate the *importance* of each outcome on a four point Likert scale. The option 'Cannot take a stand' was also offered. Lastly, the respondent was invited to prioritize the 5 most important outcomes from the list of 26 outcomes. The Euro-MCD Instrument included free space after each question for comments regarding the formulation. More details and formulation of the outcomes can be found in the development paper (Svantesson et al. 2014).

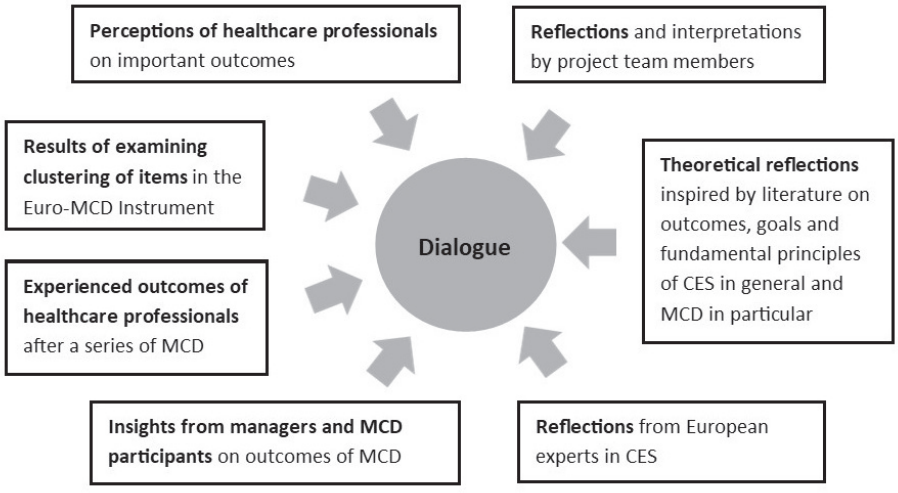

Figure 1. Revision process of the Euro-MCD instrument from 2014. Integration of sources

Sources of data for the revision: six Euro-MCD field studies

The Euro-MCD Instrument was tested in four field studies (De Snoo-Trimp et al. 2017;2019;2020*;* Svantesson et al. 2019) and reflection on MCD outcomes in general was done in two additional studies (De Snoo-Trimp et al. 2018; Silén & Svantesson 2019) as shown in Table 1.

Considering the field studies, studies I-III involve answers of respondents to the question '*How important is this outcome according to you?*', collected before (studies I and II) and after (study III) participation in a series of MCD, and supplemented with qualitative data (open answers and interviews). The question '*To what degree did you experience this outcome?*' was assessed in study IV, regarding experienced outcomes both during the MCD sessions and in daily practice. With regard to the additional studies, study V concerned a focus group study among Dutch MCD participants with considerable MCD experience in various healthcare settings; who were (being) trained as MCD facilitator. They brainstormed on possible outcomes of MCD and categorized these outcomes via the method of concept mapping (Trochim 1989). In addition, items from the Euro-MCD Instrument were shown to these focus group members and – if considered relevant by them – added to the list and included in the categorization. Lastly, study VI concerned Swedish managers' experiences of impact of MCD in daily practice, interviewed in healthcare settings where MCD had been organized.

In three studies (II-IV), healthcare professionals from various healthcare settings in Norway, Sweden and the Netherlands were invited to complete the Euro-MCD Instrument. Studies I and V were conducted among Dutch healthcare professionals only, study VI included exclusively Swedish managers. Recruitment for studies I-IV was done via healthcare institutions that planned to implement MCD on a structural basis, with possibilities to distribute the Euro-MCD Instrument among participants before and after a series of 4 to 8 MCD sessions. Recruitment for study V was done via facilitators from the national training for MCD facilitators and a Dutch network for trained facilitators. The interviewed managers from study VI were recruited via Swedish healthcare institutions that were enrolled in the field studies. The Euro-MCD Instrument was distributed on paper or by e-mail in Sweden and the Netherlands and as online questionnaire in Norway. More details regarding recruitment procedures and respondents' characteristics can be found elsewhere (De Snoo-Trimp et al. 2017; 2018; 2019; 2020; Silén & Svantesson 2019; Svantesson et al. 2019).

Data analysis and integration

The various sources in the revision process – empirical findings, dialogues and theoretical reflections – were considered as equally important and in need of each other to revise the Instrument (see Figure 1). The perspective of users of MCD was needed to learn what they found important to be able to manage ethically difficult situations in daily clinical practice. By collecting and analyzing their answers, we gained insight in how respondents interpreted and valued the presented outcomes of the Euro-MCD Instrument. The items rated as less important, experienced in a low degree or with no associations with other items in the factor analyses, were reconsidered as they might not be sufficiently relevant or clear. As such, the empirical findings served as a guidance to delete, reformulate or combine items. Moreover, factor analyses showed if and how items could be categorized.

While empirical findings show what outcomes are experienced and perceived as important by MCD participants, this does not necessarily mean that these outcomes *should* be outcomes of MCD. Therefore, we needed to interpret and reflect on the empirical findings in the light of theories on goals and fundamental elements of MCD (and CES in general). But also vice versa: if we, based on a theory underlying MCD, would consider a certain goal to be fundamentally important for MCD, this goal should be recognizable and represented in the items of the instrument and preferably also in the empirical findings. If, for instance, respondents might consider a 'theoretically important outcome' as *un*important, there would be a need to understand their views or extensive justifications before including this outcome in the revision. For this, thorough and in-depth dialogues were essential.

Hence, a dialogue, including reflection on empirical findings and theoretical aspects of MCD, took iteratively place during the entire revision process. This was done through several rounds in which the members of the project team first individually and independently provided interpretations and reflections on findings and wrote proposals for revision. Subsequently, we discussed these to understand each other's arguments and to achieve consensus (face-to-face and via digital communication). The goal was to build clear, relevant and meaningful domains: domain names should make clear for all users and readers what the items are about and the items should be valid in constructing that particular domain. Additionally, the domain should be meaningful in the sense that the name should preferably indicate the moral dimension at stake (e.g. '*good* care' or '*moral* attitude'). We further considered for each original Euro-MCD item separately whether it was valuable or not, and whether it needed reformulation.

Table 1 - Overview of studies for revision process Euro-MCD Instrument (2014)

Study		Focus	Methods	Key findings
I	De Snoo-Trimp et al. 2017	Perceived importance of outcomes before participation in MCD	Mixed methods – Euro-MCD Instrument closed responses from Dutch healthcare professionals and interviews with Dutch healthcare professionals	Outcomes referring to Enhanced collaboration, Improved moral reflexivity and Concrete results were perceived as most important. Quality of care was noted as extra possible outcome in interviews
II	Svantesson et al. 2019	Perceived importance of outcomes before participation in MCD	Mixed methods – Euro-MCD Instrument closed and open responses of healthcare professionals in the Netherlands, Sweden and Norway	Outcomes referring to Enhanced collaboration and Concrete results were perceived as most important Better interaction with patient and family members was mentioned as extra possible outcome in open answers
III	De Snoo-Trimp et al. 2020	Analyzing structure and stability of items on perceived importance before and after MCD participation	Quantitative – Euro-MCD Instrument closed responses of healthcare professionals in Netherlands, Sweden and Norway and factor structure	Outcomes referring to Enhanced collaboration and Improved moral reflexivity were perceived as most important both before and after participation. Healthcare professionals found similar outcomes the most important after participating in MCD series but rated outcomes less important than prior to participation. Factor structure showed 3 domains of outcomes.
IV	De Snoo-Trimp et al. 2019	Experience of outcomes after MCD participation, both during sessions as well as in daily practice	Quantitative – Euro-MCD Instrument closed responses of healthcare professionals in Netherlands, Sweden and Norway and factor structure	Outcomes referring to Enhanced collaboration, Improved moral attitude and Improved moral reflexivity were mostly experienced. Factor structure showed 4 domains of outcomes.
V	De Snoo-Trimp et al. 2018	Defining and categorizing MCD outcomes in focus group sessions with experienced MCD participants	Qualitative: focus group sessions with experienced MCD participants in the Netherlands, using method of concept mapping	In total, 85 possible MCD outcomes were categorized into 8 domains , of which 4 referred to individual development, 2 referred to the group level, 1 concerned the organizational level and 1 was about concrete actions.
VI	Silén & Svantesson 2019	Experienced impact what MCD meant for daily practice according to managers	Qualitative: interviews with managers from workplaces where MCD was practiced in Euro-MCD project in Sweden	The theme of enhanced ethical climate emerged as main outcome in experiences of managers.

Final phase of revision: development of Euro-MCD 2.0

After extensive re-categorizations and reformulations by the project team, a first draft of domains and items of the new Euro-MCD 2.0 was presented to European experts in CES during a focus group meeting. In this meeting, experts from a variety of CES practices participated, with expertise in both CES and CES evaluation research. Their characteristics are shown in the Appendix (Table 1). In the audiotaped meeting, the experts were invited to give critical and constructive comments regarding categorization, item formulation, rationale and purposes of the revised instrument or anything else they found remarkable in this draft version. Their feedback was taken into account when further finalizing the revision and developing new drafts of the instrument. Lastly, a final draft was reviewed by and discussed with English native speakers and CES experts in think aloud interviews to check the interpretation and clarity of domains and items. Their characteristics are also presented in the Appendix (Table 2).

RESULTS

The result of the revision process is the revised Euro-MCD Instrument: the Euro-MCD 2.0. This will be presented and explained in part I, including comparisons with the Euro-MCD Instrument from 2014. In part II, we elaborate on the revision process and our arguments for revision as developed throughout the iterative revision process.

PART I: presenting and explaining the revised Euro-MCD Instrument: Euro-MCD 2.0

The Euro-MCD 2.0 consists of 15 items covered by three domains: 1) Moral competence; 2) Moral teamwork and 3) Moral action, as presented in Table 2. This table also shows the link with previous Euro-MCD items. The complete Euro-MCD 2.0 including instructions and answer options is presented in the Supplementary materials of this thesis.

1) Moral competence

The first domain Moral competence includes 'moral awareness', 'analytical skills' and a 'virtuous attitude' when experiencing and dealing with an ethically difficult situation. In the field studies, outcomes referring to moral competences were valued and experienced by participants and associated with each other. Due to MCD, participants might develop awareness to recognize a situation as being ethically difficult (item #1) and become aware of others' perspectives (items #2). Furthermore, participants might grow in analytical skills to identify values and formulate arguments when encountering an ethically difficult situation (items #3 and #4). Besides, a virtuous attitude can become

more apparent by openness when listening to others (item #5) and courage to speak up in ethically difficult situations (item #6).

During our deliberations on this domain, literature on moral competence helped us to further reflect upon the name of this domain and refine the formulation of its items. Moral competence is a rather broad concept in literature, most often used in business ethics and theories on moral development. The three subdomains of awareness, skills and attitude have been described in several studies close to ours as possible outcomes of ethics education or ethics support. First, the three elements of awareness, skills and attitude are reflected in the focus on perception and reflection by Kälvemark Sporrong (2007), who argues that ethical competence 'entails the ability to integrate perception, reflection and action, and to understand oneself as being responsible for one's own actions'. Furthermore, Eriksson et al. (2007) argued that ethical competence should include 'being' (i.e. virtues), 'doing' (i.e. acting according to ethical guidelines and rules): and 'knowing' (i.e. reflecting on relevant virtues and guidelines).

More recently, in their development of ethics education aimed to foster moral competence, Van Baarle and colleagues (2017) operationalized moral competence as follows: 'moral competence entails the ability to be aware of one's personal moral values and the values of others, the ability to recognize the moral dimension of situations, the ability to judge adequately a moral dilemma, to communicate this judgment, the willingness and ability to act in accordance with this judgment in a morally responsible manner, and the willingness and ability to be accountable to yourself and to others'. In this definition, the focus on awareness can clearly be recognized, and the repeated use of the words 'willingness and ability' reflect similar attitudes and skills as we propose in this domain.

In this domain, items of the former Euro-MCD domains of Moral reflexivity (no. 11, 12, 14 and 15), Moral attitude (no. 16-20) and (to some extent) Emotional support (no. 2 and 4) are reformulated and integrated, as the factor analyses (studies III, IV) did not strongly support a distinction between (in particular) the latter two domains. The field studies (I-IV), both regarding perceived importance as well as experience, did nevertheless show the value of the items from these domains.

Table 2 – The Euro-MCD 2.0 - Revised Instrument

Domain, *subdomain,* item		Link to former Euro-MCD item (if any)
Moral competence		
Moral sensitivity		
1.	I recognize a situation as being ethically difficult	Increases my awareness of the complexity of ethically difficult situations (no. 12)
2.	I am aware of others' perspectives in ethically difficult situations	I see the ethically difficult situations from different perspectives (no. 14)
Analytical skills		
3.	I can identify the different values at stake in ethically difficult situations	Develops my ability to identify the core ethical question in the difficult situations (no. 13)
4.	I can formulate arguments in favor of and against different courses of actions in ethically difficult situations	Find more courses of actions to manage the ethically difficult situations (no. 24)
Virtuous attitude		
5.	I listen with an open mind to others when discussing an ethically difficult situation	I listen more seriously to others' opinions (no. 18)
6.	I speak up in ethically difficult situations	Strengthens my self-confidence when managing ethically difficult situations (no. 2) & Gives me more courage to express my ethical standpoint (no. 19)
Moral teamwork		
Open dialogue		
7.	We openly express our viewpoints in ethically difficult situations	More open communication among co-workers (no. 10)
8.	We all have opportunities to express our viewpoint on ethically difficult situations	Greater opportunity for everyone to have their say (no. 6)
9.	We respect different viewpoints when discussing ethically difficult situations	Enhanced mutual respect amongst co-workers (no. 8)
Supportive relationships		
10.	We feel secure to share emotions in ethically difficult situations	Enhances possibility to share difficult emotions and thoughts with co-workers (no. 1) & I feel more secure to express doubts or uncertainty (no. 5)
11.	We support each other when dealing with ethically difficult situations	
Moral action		
Moral decision-making		
12.	We make decisions on how to act in ethically difficult situations	Find more courses of actions to manage the ethically difficult situations (no. 24) & Enables me and my co-workers to decide on concrete actions in order to manage the ethically difficult situations (no. 26)
13.	We base our decisions on moral considerations in ethically difficult situations	
Responsible care		
14.	We are responsive to the values and needs of patients and their families when interacting with them in ethically difficult situations	
15.	We are able to explain and justify our care towards patients and their families	

2) Moral teamwork

The second domain is Moral teamwork and involves two subdomains: 'open dialogue' and 'supportive relationships' among healthcare professionals. As MCD inherently is a group exercise in interaction, the MCD meetings might have an impact on how the involved healthcare professionals as a group talk and work together when facing an ethically difficult situation, also beyond the MCD sessions in their daily practice. The field studies clearly showed that outcomes about teamwork were highly valued and experienced by MCD participants. 'Moral teamwork' was chosen as a name for this domain. This name was considered to cover the content as closely and clearly as possible: it is not only about communication but rather about their joint way of working together, their teamwork, related to ethically difficult situations. And it is not about the practical content of this teamwork but about its *moral* aspects. The items in the subdomain of 'an open dialogue' involve whether team members talk openly and honestly with each other (item #7), discuss ethical issues on an equal level (item #8) and in a respectful way (item #9). The subdomain of 'supportive relationships' is about whether the team members feel secure amongst each other to share emotions (item #10) and motivated to support each other when dealing with ethically difficult situations (item #11).

In order to define this domain and (re)formulate its items, we used aspects from existing literature on teamwork. Literature on teamwork is extensive and terms like 'team effectiveness' or 'interprofessional teamwork' have been studied across various research areas (e.g. business, sociology, medicine) (Mickan & Rodger 2000; Babiker et al. 2014; Schmutz et al. 2019). For instance, Schmutz et al. (2019) recently examined the link between effective teams and clinical performance because they saw that 'researchers and practitioners often lack a common conceptual foundation for investigating teams and teamwork in healthcare'. In their meta-analytical review, they defined teams as 'identifiable social work units consisting of two or more people with several unique characteristics'. Next, they operationalized teamwork as follows: 'teamwork is a process that describes interactions among team members who combine collective resources to resolve task demands (e.g. giving clear orders)' (Schmutz et al. 2019). They further made a distinction between 'teamwork' and 'taskwork'. The latter concerns '*what* a team is doing whereas *teamwork* is *how* the members of a team are doing something with each other'. This distinction is helpful for us since our domain Moral teamwork is about *how* the team members work together in ethical matters, not primarily about *what* they – in the end – do to manage the ethical situation. Furthermore, this definition is focused on the *interaction* between team members, which resembles our focus on dialogue in this domain. The focus on dialogue also appears in the definition by

Babiker et al. (2014) of team effectiveness: 'an effective team is a one where the team members, including the patients, communicate with each other, as well as merging their observations, expertise and decision-making responsibilities to optimize patients' care'. They described several characteristics of an effective team, including some with a clear link to our domain, like 'honesty' and 'effective communication' referring to open and equal interaction possibilities for team members. In addition, a literature review by Mickan & Rodger (2000) revealed eighteen characteristics for 'effective teamwork' in healthcare, categorized into an organizational domain, a domain for the contributions of individual team members and a domain for 'team processes'. In this latter domain, the notions of 'communication' 'cohesion', and 'social relationships' are relevant. These notions are reflected in our subdomains dialogue and relationships.

One major topic of discussion in the project team was whether we should call this domain 'ethical climate', which also focuses on dialogue and relationships (Olson 1998; Silén et al. 2012; Grönlund et al. 2016; Pergert et al. 2018; Silén & Svantesson 2019). Ethical climate is mainly characterized as 'shared perceptions' of values and supportive relationships among healthcare professionals and the presence of possibilities to reflect, decide and act in an ethical way (Olson 1998; Silén et al. 2012; Grönlund et al. 2016; Pergert et al. 2018). It is comparable to what MCD envisions in facilitating dialogue, mutual understanding and common grounds when dealing with ethical challenges. The project team therefore considered that MCD outcomes in the domain of Moral teamwork show similarities with aspects of ethical climate. At the same time, ethical climate has been described to cover more than only team collaboration and is used as a rather broad concept involving both possibilities for ethical reflection (e.g. ethics consultants or MCD) as well as relationships, beliefs and behavior of individuals. This is for instance described by Silén and Svantesson (2019) in their recent study on manager's experiences with clinical ethics support, where they extensively elaborated on the concept of ethical climate. They argued that ethical climate might involve both group dynamics as well as 'morally grounded actions and morally strengthened individuals'. In the end, we came to consensus on using 'moral teamwork' as a more pragmatic term, meaningful regarding the content and at the same abstraction level as the other domain names.

The domain Moral teamwork includes some adapted items from the former domains of Enhanced collaboration (no. 6,8 and 10) and Enhanced Emotional Support (no. 1 and 5). Since this domain is about how participants work *together*, all items are formulated as 'We…'. A new item (#11) is added: 'We support each other when dealing with an ethically difficult situation' as this mutual support was considered to be an essential element

of moral teamwork and suggested by respondents in open answers of both our field studies (I-III) and our focus group study (study V).

3) Moral action
Lastly, the domain of Moral action involves the subdomains 'moral decision-making' and 'responsible care'. The project team considered it important to include items referring to concrete decisions and actual caring practice, as was also suggested in the closed and open responses of respondents in the field studies. The deliberation in MCD might not only change the participants in their individual moral competences (the first domain) and their teamwork (the second domain), but also, and maybe even *through* the first and second domain, the actual situation itself.

Firstly, in the subdomain 'moral decision-making', we want to assess whether MCD participants report to make a decision on how to deal with the situation at all (item #12) and if they base these decisions on moral considerations (item #13). Making a decision on moral grounds refers to how participants perceived the deliberation: did they consider the moral aspects of the situations, and not only the medical facts or psychosocial worries? In line with the theoretical background of MCD, the deliberation ideally results in a plan of action. According to hermeneutic pragmatic philosophy and dialogical ethics, one may start to experience and understand things in a new way and come to new or adapted plans of action (Widdershoven & Molewijk 2010; Widdershoven & Metselaar 2012). In one of our field studies, managers of workplaces where MCD took place told that 'ethics was more marked in written documents, such as the operational plan, in notes regarding breakpoint dialogues and care goals as well as in reasons for changing decisions' (Silén & Svantesson 2019). As such, MCD seems to impact the actual daily practice and in particular how concrete decisions are made or changed.

Secondly, we built the subdomain 'responsible care' to indicate the relationship with patients (and their families) and to explicitly show our operationalization of 'good' care: depended on the context and clarified by the responsible healthcare professional. We considered that a core element of providing good care concerns a responsiveness to the values and needs of patients and their family when interacting with them (item #14). Experiencing and valuing good interactions with patients and family can be seen as a crucial element of good care, as most general ethics approaches plea for patient-centered approaches in healthcare (Duggan et al. 2006). In particular, the care ethics approach emphasizes the interdependency and equal relationships between care-givers and care-receivers (Tronto 1993; 2013). A care ethics approach fits well to the daily practice of healthcare – the setting where MCD takes place. Here, healthcare

professionals may have complex interactions with various stakeholders, confronting them with fundamental questions challenging their own presuppositions. In addition, the patient being the most important stakeholder is often a vulnerable person, hence, the healthcare professional should establish a responsible relationship with him or her (Heidenreich et al. 2018). Next, we previously described that a definition on good care would not fit in the Euro-MCD Instrument, as good care is exactly what MCD participants deliberate on in the MCD session (as is the case in CES in general). Yet, the result of this deliberation should (at least) be that responsible healthcare professionals are able to explain their view on good care to patients and their families. Therefore, assessing whether good care has been reached should be focused on the process instead of the content, and on the perceptions of participants. Therefore, we could ask MCD participants whether *they think* they are able to explain and justify their care towards patients and their families, which we assess in our last new item (#15).

Items from the former Euro-MCD domain of Concrete results (no. 24 and 26) are merged in in the subdomain of 'moral decision-making': 'We make decisions on how to act in ethically difficult situations' (item #12). In this subdomain, a new item (#13) is added: 'We base our decisions on moral considerations in ethically difficult situations'. The items in the subdomain 'responsible care' are also new: 'We are responsive to the values and needs of patients and their family when interacting with them in ethically difficult situations' (#14) and 'We are able to explain and justify our care towards patients and their families' (#15).

PART II: The revision process in detail

We will now describe how our decisions for revision were based on the empirical findings and developed throughout our revision process. First, a brief summary of the empirical findings is given, followed by a description of how these findings indicate points for revision and reflection.

Summary of the six field studies

In short, the following conclusions regarding the Euro-MCD Instrument (2014-version) could be drawn based on the empirical field studies:

- The majority of respondents rated all MCD outcomes as quite or very important, both before and after MCD participation, without a considerable difference between these moments (Studies I-III, Table 1).
- Outcomes referring to the domain 'Enhanced collaboration' were particularly valued (Studies I-III) and experienced by the majority of respondents (Study IV)

- Outcomes regarding the domain 'Concrete results' were perceived as quite or very important before MCD participation (studies I-II)
- Outcomes regarding the domain 'Moral attitude' were experienced in a quite or very high degree during the sessions and in daily practice (Study IV)
- Outcomes referring to quality of care and the interaction with patients and their family members were suggested as new outcomes by respondents who were about to participate in MCD (Studies I-II)
- Factor analyses of the outcomes did not confirm the six originally proposed domains but revealed three or four domains of outcomes, indicating a possible distinction between virtues, skills, sharing feelings and actions (Study III-IV)
- Twelve outcomes of the 26 (no. 1,3,5,9,13,15,17,19,22-25 in Table 3) should be reconsidered regarding importance or clarity of formulation as these had low associations with other items in the factor analyses (Studies III-IV)
- Experienced MCD participants listed 85 possible outcomes of MCD into eight categories of which four categories referred to personal development (as professional and individual, focused on the other, knowledge and skills), two concerned the team (regarding its development and connection), one referred to organization and policy and one referred to concrete actions (Study V)
- Outcomes reported by managers were categorized as an enhanced ethical climate, including a closer-knit team, morally strengthened professionals, morally grounded actions and ethics leaving its marks on everyday work (Study VI)

A detailed overview of the results and considerations *per Euro-MCD item* is presented in Table 3.

Based on the field studies, the following decisions for revising the Euro-MCD Instrument were made: 1) reformulating items and changing all items into assessing the current status of MCD related outcomes (e.g. 'now') instead of change over time (e.g. 'better'); 2) changing the original domains; 3) adding items about quality of care and interacting with patients and family; 4) omitting the question about perceived importance; and 5) deleting items not sufficiently relevant to or associated with MCD.

1) Reformulating items to assess current instead of changed practice
Firstly, the formulation of items turned out to be problematic in the field studies. All outcomes were formulated in a comparative manner including words like 'more' or 'better', for instance: 'More open communication among co-workers' or 'I understand better what it means to be a good professional'. This could have made it rather straightforward for respondents to agree on their importance and difficult to disagree

with them. Moreover, potential bias might have occurred here as respondents might be directed towards desirable answer options regarding their practice. It could also have made it hard for respondents to discriminate between items regarding both importance as well as experience. Therefore, the decision was made to reformulate outcomes more neutral and about the current practice instead of a transition or indication of an improvement, like 'We openly express our viewpoints in ethically difficult situations' (#7). As a result of this reformulation, we changed the answer options as well, from a *degree* of importance or experience towards an *agreement* on the item, on a four point Likert scale from 'strongly agree' to 'strongly disagree'.

Table 3 - Euro-MCD domains and items (2014) – Arguments for adaptation, reformulation or deletion

Domain and Item	*Consideration project team*	*Decision*
Enhanced emotional support		
1. Enhances possibility to share difficult emotions and thoughts with co-workers	Needs reconsideration, was important for respondents but might have been misinterpreted by respondents as it does not correlate with other items from the domain Emotional support	Rewritten as item #10 in revised domain 'Moral teamwork': *We feel secure to share emotions in ethically difficult situations*
2. Strengthens my self-confidence when managing ethically difficult situations	Good item but seems to belong to Moral attitude rather than to Emotional support	Included in item #6 in revised domain 'Moral competence': *I speak up in ethically difficult situations*
3. Enables me to better manage the stress caused by ethically difficult situations	Needs adaptation or deletion, too vague, might have been misinterpreted by respondents and managing stress might not be a necessary outcome of MCD at all	Deleted
4. Increased awareness of my own emotions regarding ethically difficult situations	Good item but seems to belong to Moral attitude rather than to Emotional support	Not included because of item reduction, as other items in revised domain 'Moral competence' were determined as being closely related concept
5. I feel more secure to express doubts or uncertainty regarding ethically difficult situations	Needs reconsideration as it does not seem to be important according to respondents and does not seem to correlate with other items from Emotional support and it might be too similar to items 2 and 5	Rewritten as a group-related outcome, item #10 in revised domain 'Moral teamwork': *We feel secure to share emotions in ethically difficult situations*
Enhanced Collaboration		
6. Greater opportunity for everyone to have their say	Good and important item	Included as item #8 in revised domain 'Moral teamwork': *We all have opportunities to express our viewpoint on ethically difficult situations*
7. Better mutual understanding of each other's reasoning and acting	Good and important item, but might need reconsideration as it correlates with both individual items (5 and 19) and group items (6,8 and 10) indicating various possible interpretations	Deleted because of item reduction as it was considered to be covered by other items
8. Enhanced mutual respect amongst co-workers	Good item but might need reconsideration as it also seems to correlate with items from Moral attitude	Rewritten as item #9 in revised domain 'Moral teamwork': *We respect different viewpoints when discussing ethically difficult situations*
9. I and my co-workers manage disagreements more constructively	Needs reconsideration or deletion as it does not seem to be important or experienced according to respondents indicating that it might not be an outcome of MCD at all	Deletion

Table 3 - Continued

Domain and Item	*Consideration project team*	*Decision*
10. More open communication among co-workers	Good and important item	Included as item #7 in revised domain 'Moral teamwork': *We openly express our viewpoints in ethically difficult situations*
Improved moral reflexivity		
11. Develops my skills to analyse ethically difficult situations	Needs reconsideration – might be too general and already covered by other items	Deleted because of item reduction as it was considered to be covered by other items
12. Increases my awareness of the complexity of ethically difficult situations	Good and important item	Rewritten as item #1 in revised domain 'Moral competence': *I recognize a situation as being ethically difficult*
13. Develops my ability to identify the core ethical question in the difficult situations	Needs reconsideration or deletion as it does not seem to be important according to respondents and it might be too similar to other items from Moral reflexivity	Changed and rewritten as item #3 in revised domain 'Moral competence': *I can identify the different values at stake in ethically difficult situations*
14. I see the ethically difficult situations from different perspectives	Good and important item	Included as item #2 in revised domain 'Moral competence': *I am aware of others' perspectives in ethically difficult situations*
15. Enhances my understanding of ethical theories (ethical principles, values and norms)	Needs adaptation or deletion, as it might not be an outcome of MCD at all	Deleted as it was not considered to be relevant/ intended outcome of MCD
Improved moral attitude		
16. I become more aware of my preconceived notions	Good item but might be too general considering the correlations with many other items and possible social desirability in its formulation	Deleted because of item reduction, not considered to be a clear outcome of MCD.
17. I gain more clarity about my own responsibility in the ethically difficult situations	Needs reconsideration or deletion as it might have been misinterpreted as shown by the lack of correlations with other items in the perceived importance-data	Deleted as it was not considered to be a clear outcome of MCD
18. I listen more seriously to others' opinions	Good item but might need reconsideration as it seems to become important for respondents only after participation in MCD.	Rewritten as item #7 in revised domain 'Moral competence': *I listen with an open mind to others when discussing an ethically difficult situation*

Table 3 - Continued

Domain and Item	*Consideration project team*	*Decision*
19. Gives me more courage to express my ethical standpoint	Needs reconsideration as it does not seem to be important according to respondents and it might be too similar to items 2 and 5	Deleted because item about self-confidence was considered as same outcome, item #6 in revised domain 'Moral competence': *I speak up in ethically difficult situations*
20. I understand better what it means to be a good professional	Good item but might be too general considering the correlations with many other items and possible social desirability in its formulation	Deleted because of item reduction, too vague and general formulation
Impact on organizational level		
21. I and my co-workers become more aware of recurring ethically difficult situations	Needs reconsideration since the item seems to be about moral reflexivity than the organizational level regarding the correlations with items from the Moral reflexivity domain	Deleted because of item reduction and too vague to apply to experience *before* MCD participation.
22. Contributes to the development of practice/ policy in the workplace	Needs adaptation or deletion, might have been misinterpreted by respondents or developing policies might not be an outcome of MCD at all	Deleted, not necessarily an outcome of MCD
23. I and my co-workers examine more critically the existing practice/policies in the workplace/organization	Needs reconsideration or deletion as it does not seem to be important or experienced according to respondents indicating that it might not be an outcome of MCD at all	Deleted because of item reduction and too vague to apply to experience *before* MCD participation.
Concrete results		
24. Find more courses of actions to manage the ethically difficult situations	Needs reconsideration, seems to be important for respondents but might have been misinterpreted by respondents as it does not seem to correlate with other items from the domain Concrete results	Included as item #4 in revised domain of 'Moral competence': *I can formulate arguments in favor of and against different courses of action in ethically difficult situations*
25. Consensus is gained amongst co-workers in how to manage the ethically difficult situations	Needs adaptation or deletion, too vague as it does not seem to belong to domain of concrete results	Deleted due to item reduction and being too vague
26. Enables me and my co-workers to decide on concrete actions in order to manage the ethically difficult situations	Good and important item	Included as item #12 in revised domain of 'Moral action': '*We make decisions on how to act in ethically difficult situations*'

2) Changing the original domains

A second point for revision that emerged from the empirical findings concerned the categorization of outcomes. As described before, the original Euro-MCD Instrument consisted of 6 domains. These domains were not confirmed in the factor structures of the data, as factor analyses revealed 3 and 4 domains for the perceived-importance and experience question respectively. In particular, the domains Impact on the organizational level and Concrete results needed reconsideration since their items were not associated with each other and did thus not convincingly form distinct domains. Therefore, we left these six domains and made a new categorization in the revised instrument, in which elements of these former domains can still be recognized. Initially, consensus was reached on a general division of items on the individual, group and case level. This division was indicated by the factor analyses. The first level referred to individual development and changes due to participation in MCD, including awareness, skills and attitude. The second level comprised the impact on dialogue and relationships among healthcare professionals as a group or team and the third level was linked to actual care practices and decisions made about the concrete quality of care. The next step was to go from abstract levels to definite domains including items. We have described this in the previous part.

3) Adding items about quality of care and interaction with patients and family

Furthermore, a point for revision was the consideration of new items, like quality of care (as suggested in study I) and better interaction with patient and family (as suggested in study II). With regard to quality of care: we considered that contributing to quality of care is the ultimate and overarching goal of clinical ethics support. In the end, MCD should support healthcare professionals to pursue high quality of patient care. At the same time, it has been described to be complicated to give concrete and universal definitions of quality of care in general, and more specific as outcome of CES since CES inherently concerns a reflection upon how we define quality of care (Schildmann et al. 2013; Molewijk et al. 2015). Subsequently, it is difficult or maybe impossible to directly define the impact of ethics support on quality of care (Silén et al. 2015;2016; Haan et al. 2018; Schildmann 2019). Therefore, a predefined outcome regarding what quality of care should look like does not fit here.

This does however not mean that it is not at all possible to link MCD to quality of care, as it is at least possible to assess how healthcare professionals *themselves* think about the process to arrive at good decisions, or how they think about preconditions to deliver good care. As MCD is mostly intended to be a service supporting healthcare professionals in defining good care, it is important that outcome measures stay close

to how professionals define good care. In the end, outcomes referring to quality of care, like all outcomes in the Euro-MCD Instrument, should only be included if healthcare professionals are able to recognize and experience them. Support for this could be found in the focus group study (study V), in which items referring to the *procedure* to arrive at good care were suggested, such as 'Clarify what good care entails' and 'Better quality of work'. We further reflected on these suggestions when defining items in the new domain of 'Moral action', see part I.

4) Omitting the question about perceived importance

Fourthly, the question on perceived importance of the presented MCD outcomes needed reconsideration. Since respondents perceived all outcomes as quite or very important, without a meaningful change over time, there was no clear emphasis on or discrimination between certain outcomes. The reason for these high rates is not clear. Perhaps MCD might have been very welcome as opportunity to sit and talk, – in particular – for Scandinavian nurse assistants, which might partly explain why outcomes were rated so high in the Scandinavian countries (study II). In the end, we concluded that the question on perceived importance would not have any value in the revised version because the field study respondents confirmed their assumed relevance and did not discriminate between items to allow for tailoring or weighing outcomes. It is however important to note that the question has been of great value in the revision process as it showed the perceptions of end-users regarding the relevance and importance of items.

5) Deleting items not sufficiently relevant to or associated with MCD

Some items of the Euro-MCD Instrument were omitted (see Table 3), due to a lack of correlations with other items or low experience-rates in the empirical data, implying to be insufficiently relevant or associated with MCD. The item 'Enables me to better manage stress caused by ethical difficult situations'(no. 3), was believed to have a vague formulation. Also, we concluded that some items with low scores or low correlations (no. 9, 13,22 and 25) did not appear to be clear outcomes of MCD. Firstly, we decided to delete the item 'I and my co-workers manage disagreements more constructively' (no. 9). Although we considered it as a relevant outcome that participants might learn to deal with disagreements during and after MCD, it might have been too ambitious to learn this after a few MCD sessions. It might also have been too difficult to answer as it requires thinking about both disagreement itself as well as how disagreement is dealt with. Next, we considered learning about ethical theory (no. 13) not as a characteristic for the process of MCD as MCD is not a theoretical course but a reflective dialogue focusing on participants' perspectives. The item about developing practice and policy (no. 22) was not considered as basically relevant for healthcare professionals and might

have been a too ambitious goal of participating in some MCD sessions. Lastly, gaining consensus (no. 25) did not seem to be interpreted as a 'Concrete results'-outcome by respondents. We concluded that the term 'consensus' is confusing: does it mean that everyone agrees on the decision? Does it relate to shared decision-making, in the sense that all relevant parties should be involved in the decision-making process? In the end, MCD is not per se about decision-making or a joint agreement, and important parties for decision-making like patients or family might be absent. Therefore, we decided to delete this item. Nevertheless, aspects from these outcomes on how healthcare professionals jointly discuss about and decide on ethically difficult situations are resembled in the revised instrument (see part I).

Finalizing the instrument

In the last phase of the revision process, the draft version was discussed with four native English speakers in think aloud interviews, resulting in clarifications and adjustments on detailed item level. (See the Appendix, Table 2 for their characteristics.) One of the interviewees suggested to separate the question on experience in the MCD sessions from the experience in daily practice by making two separate questionnaires for each setting, while items remained the same. We accepted this suggestion as it was considered to enhance the readability and feasibility for the respondents, as they now have to rate their experience for all items for only one setting (MCD sessions or daily practice). We decided that the Euro-MCD 2.0 can be completed at three moments: 1) at baseline, so before MCD participation, to assess experience of the listed outcomes in current daily practice; 2) directly after (a series of) MCD, to assess experience of outcomes *during* these MCD(s) and 3) at a later moment after (a series of) MCD, to assess experience of outcomes in daily practice. In finalizing the instrument, we checked whether items were applicable for all these moments.

DISCUSSION

This paper presents the Euro-MCD 2.0, as well as the arguments developed in the revision process. We already described our reflections on the Euro-MCD 2.0 and the field studies in the Results section, as this was part of the revision process. We will now further reflect on the revision process *itself*, by describing our methodological considerations, including strengths and weaknesses. Furthermore, we here provide an outlook to future research on and application of the Euro-MCD 2.0.

Methodological considerations about the revision process

Our dialogical approach to revise the Euro-MCD Instrument is in line with one of the approaches to evaluate CES as described by Schildmann and colleagues (2013). In their approach of 'reconstructing quality norms', they describe that criteria for evaluation of CES only become clear through deliberation among CES participants within specific contexts: 'outcomes are defined by the stakeholders in the practice [i.e. the end users] in close cooperation with CES [Service] experts and researchers'. Therefore, during our revision process, we explicitly included the perspectives of MCD participants in the field studies and invited experts from various European settings where CES is applied. An ongoing dialogue among various researchers and MCD participants required open, transparent, extensive and regular meetings to keep on track regarding the presumed goal of revising the instrument. A challenge of the revision process was the lack of a clear protocol on how to start and the steps to follow. As there was no established method or example for developing an evaluation tool in this field of research, neither for integrating empirical findings with theoretical reflections, the current process of revision was a pioneering exercise.

In the revision process, the dialogue was not limited to the research members only since the empirical findings can be seen as a dialogical 'partner' as well and we received input from experienced MCD participants in one of our field studies (De Snoo-Trimp et al. 2018) and feedback from European experts in the field of CES. The latter feedback was also important to create broader support from experts with various expertise and from different European countries for the Euro-MCD 2.0 as an actual *European* instrument. In the revision process, we constantly searched for a way to construct possible outcomes of MCD that refer to 'good' healthcare professionals, working together in a 'good' way to contribute to 'good' care or 'good' decisions. In this process, we operationalized this 'good' in the new domains and subdomains, as for instance shown in the name 'responsible care'. At the same time, we took care to leave room for the deliberative and reflective nature of MCD regarding what this 'good' should be in concrete situations.

One of the strengths of our approach was the multidisciplinary and multinational variety in all parts and phases. We used various quantitative and qualitative methods and involved respondents from a wide range of healthcare settings and professional backgrounds in different countries. Furthermore, diverse interpretations of the data occurred, dependent on the MCD contexts we knew and were used to (e.g. Swedish ethics reflection groups in community care or Dutch moral case deliberations in emergency settings) and the research methodologies we were familiar with, ranging from instrument development to interview studies and philosophical analysis. Due to

this variety, project team members were challenged to explain and provide arguments for their own viewpoint and to listen to others' suggestions. This was an intensive process involving many and lengthy structured and well-documented meetings in the project team about proposals for revision which were individually and independently prepared by the project team members. The combination of various data sources was also a strength since the sources confirmed and justified decisions regarding the revision. For instance, the final structure into three domains can be recognized in both the factor analyses (on perceived importance) as well as in the categorization by MCD participants in the concept mapping study.

Some weaknesses should be mentioned. In the revision process, only a limited number of countries were explicitly involved. As a consequence, empirical findings for the revision were based on only Swedish, Norwegian and Dutch data. Furthermore, the project team for this revision consisted only of one non-Dutch researcher. However, ethics support experts from Sweden and other countries (UK, Germany, Switzerland) were involved in the final phase. We assume that the instrument is feasible for MCD practices in other countries and settings as well. Yet, this applicability of the instrument is not confirmed yet. Another weakness was that given a broad definition of MCD, we were not able to show which components of MCD contribute to the outcomes, as was recently indicated as field of inquiry by Schildmann and colleagues (2019). In our field studies, we did not have information about how the MCD sessions were performed, hence, we were not able to relate any specific component of MCD to the outcomes. At the same time, we (and others) did study the content of MCD in the settings where the Euro-MCD Instrument was distributed (Rasoal et al. 2016; Jellema et al. 2017; Tønnessen et al. 2017; Heidenreich et al. 2018; Svantesson et al. 2018). These studies show that MCD is a space for moral reasoning, reflections on context, relieving emotions, sharing uncertainties and concerns about a situation, and that the role of facilitator is deemed as crucial. Yet, these studies did not examine the link between these components and the outcomes of MCD. We therefore recommend further research into the link between content and outcomes of MCD to improve quality of both MCD itself as its impact.

Recommendations for future use of the Euro-MCD 2.0

The Euro-MCD 2.0 can be used in healthcare settings where MCD is implemented as a service to support healthcare professionals in handling ethical challenges. The instrument can provide a detailed overview of how participants experience MCD outcomes. As such, organizations can be informed on outcomes in order to foster and adjust structural implementation of MCD. Also, facilitators might get insight into possible points for improvement of their role and the way they use and steer the MCD

sessions when learning about how outcomes are experienced and possibly developed over time. The Euro-MCD 2.0 further allows for comparison of experienced outcomes between and within diverse professional groups or healthcare teams in order to tailor the service of MCD to these specific groups and settings. Moreover, the focus in the formulation of the items is now on the current practice instead of any self-reported changes. As such, the Euro-MCD 2.0 can monitor possible developments in outcomes by comparing the status quo with the status after some MCDs: did MCD participants grow in their competences, teamwork and care? Lastly, the Euro-MCD 2.0 was and is initially developed for MCD, but might be applicable for other types of CES evaluation research as well. This applies in particular to CES services where a dialogue takes place about a moral question that has risen from a specific situation and where relevant perspectives, values and norms are considered. The Euro-MCD 2.0 could also be used in other settings than healthcare, yet pilot-testing and eventual adapted formulations of items will then be needed.

Next, it might be interesting to compare results of the Euro-MCD with results from other relevant measurement instruments like quality of care measures, moral distress scales and ethical climate scales in order to assess whether (for instance) positive ratings for experiencing outcomes of MCD are associated with higher scores on one of the other scales. As such, the Euro-MCD Instrument can contribute to the need for 'further rigorous research to evaluate the effectiveness of ethical case interventions' (Schildmann et al. 2019). We therefore recommend comparing various measurement tools, scales and instruments in future evaluation research in the field of ethics support.

Furthermore, since participation of patients and their family members in MCD is a growing area of interest (Fournier et al. 2009; Newson et al. 2009; Weidema et al. 2011), we recommend participatory research studies to also explore patients' views on outcomes of MCD. Lastly, apart from a few 'think aloud' interviews, the current structure and content of the Euro-MCD 2.0 have not been tested yet. So along the use of the instrument in future studies and in clinical practice, it is important to collect data for future validation of the Euro-MCD 2.0.

Conclusions

The Euro-MCD 2.0 is shorter and less complex than the original Euro-MCD Instrument: the number of items is reduced from 26 to 15 items and the number of domains from six to three. It is now more strongly substantiated by an integration of empirical data from several field studies, theoretical reflections and ongoing dialogues with MCD participants and European experts in CES and evaluation. The instrument determines

whether healthcare professionals have experienced MCD related outcomes regarding their moral competences, moral teamwork and moral action. Through this, the Euro-MCD 2.0 can assess if and how MCD supports healthcare professionals in dealing with ethically difficult situations, both during the MCD sessions as well as in daily practice. The instrument can now be used in various healthcare settings to improve MCD in clinical practice. As a tool for evaluation, the Euro-MCD 2.0 may help to monitor, foster and when needed adjust the implementation and quality of MCD or other CES services, which aim to support healthcare professionals in dealing with ethically difficult situations and striving towards better care.

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APPENDIX – ADDITIONAL TABLES

Appendix Table 1 Expert meeting with Ethics support experts May 2019
Characteristics (N=8)

Countries (N)
- Germany (1)
- The Netherlands (2)
- Sweden (3)
- Switzerland (2)

Professional background (N)
- Philosophy (4)
- Nursing (3)
- Medicine (1)

Researcher position (N)
- Junior researcher (2)
- Senior researcher (3)
- Associate professor (3)

Familiar with Euro-MCD Instrument (2014) (N)
- Yes, used it (4)
- No (4)

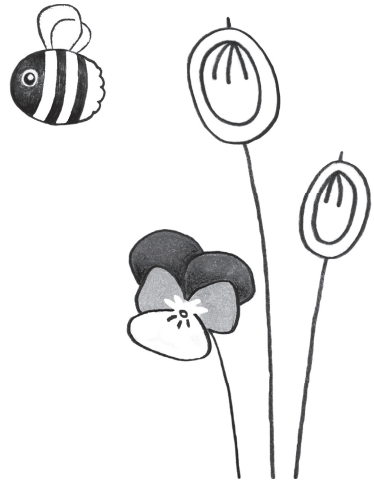
Appendix Table 2 – Participants Think Aloud interviews (N=4)

Countries (N)
- The Netherlands (1)
- United Kingdom (2)
- United States (1)

Professional background (N)
- Ethics (2)
- Nursing (1)
- Social Science (1)

Familiar with Euro-MCD Instrument (2014) (N)
- No (4)

Summary
Samenvatting



SUMMARY

The central aim of this thesis is to use, test and improve the European Moral Case Deliberation Outcomes (Euro-MCD) Instrument from 2014. This Instrument measures outcomes of moral case deliberation (MCD), a form of Clinical ethics support (CES). In an MCD meeting, healthcare professionals engage in a group dialogue about a moral question encountered in an ethically difficult situation. The meeting is guided by a facilitator who might use a conversation method. In the Introduction (**Chapter 1**), the aim of the thesis is introduced against the background of CES in general and MCD. The Introduction further describes the need for more systematic and evidence-based tools for evaluation research in this field of ethical support.

CES services intend to support healthcare professionals in managing ethically difficult situations. They have become recommended services in various healthcare settings in Europe. There is a need to know whether CES services actually support healthcare professionals in this. More specifically, it is important to know what the outcomes of CES are. This information can be used to improve implementation, quality and facilitation of the CES service. However, evaluation of CES outcomes is complex, because CES itself is complex and performed in various ways. General definitions of 'good' CES outcomes do not fit since these definitions depend on the contexts and aims of the specific CES service. What a 'good' outcome would be is also exactly the question in the CES service itself (like during an MCD session): what is good care in this situation? What is the morally right decision here? In addition, regarding the hermeneutical philosophical background of MCD, moral expertise is supposed to be within the group of MCD participants, *they* deliberate about these normative questions. According to this theoretical perspective on clinical ethics and CES, the voice of MCD participants (or CES end-users), is inherently needed and indispensable when evaluating MCD (or any CES service). At the same time, quantitative tools for evaluation are needed to systematically assess and compare outcomes of CES in different contexts where CES services are applied. Yet, empirically sound methodologies in this field of research are scarce.

Therefore, in 2014, the Euro-MCD Instrument was developed to collect outcomes of MCD, by focusing on the perspectives of MCD participants. It contains a list of 26 possible MCD outcomes, classified in six domains: 1) Enhanced emotional support, 2) Enhanced collaboration, 3) Improved moral reflexivity, 4) Improved moral attitude, 5) Impact on the organizational level and 6) Concrete results. This list of outcomes was based on a literature review and further developed with a Delphi panel and content validity testing. For each outcome, respondents are firstly asked to rate the perceived

importance of each outcome, to see whether they recognize the predefined outcomes and how they prioritize the outcomes. This information is important in order to give voice to the MCD participants, as emphasized before. Furthermore, this information might help to tailor the MCD session to the participants' perceptions and expectations. Secondly, respondents are asked to rate whether they have experienced the outcomes, both during the MCD sessions and in their daily work. As such, the instrument explicitly distinguishes between experiences *during* and *after* MCD, hence, it also assesses the self-reported impact of MCD on actual healthcare practice. After the presentation of the Euro-MCD Instrument, field studies were set up to use and further validate the instrument. This thesis presents five field studies to use, test and improve the Euro-MCD Instrument.

Chapter 2 describes a Dutch field study that used the Euro-MCD Instrument in 12 healthcare institutions (nursing homes, psychiatry settings, hospitals and care institutions for mentally disabled people). The aim of this field study was to describe healthcare professionals' perceptions on the importance of outcomes of MCD, before they actually took part in the MCD sessions. In total, 331 healthcare professionals completed the Instrument, and 13 of them were interviewed to gain a more in-depth understanding of their perceptions. Findings show that especially outcomes related to team collaboration were prioritized, and, in a lesser extent, outcomes related to concrete actions. This is in line with previous evaluation studies and literature on goals of MCD, in which aspects related to collaboration are emphasized, like open communication and a shared understanding of the situation. Interviewees further mentioned outcomes about quality of care, which were missing in the original Euro-MCD. This already indicated a first point for reconsideration of the Euro-MCD Instrument.

In **Chapter 3**, a European field study is presented that also aimed to describe the perceived importance of MCD related outcomes, and to assess differences in their perceptions among countries, professions and healthcare settings. Responses to the Euro-MCD Instrument were collected from a larger group of healthcare professionals. In total, 703 healthcare professionals from the Netherlands, Norway and Sweden completed the instrument prior to participation in MCD sessions. Findings showed that the majority of them (more than 76 percent) rated all outcomes in the Euro-MCD Instrument as 'quite' or 'very' important, and that outcomes referring to collaboration and concrete results were perceived as most important. In the open answers to the Instrument, outcomes referring to interaction with patients and their families emerged as a potentially new domain. This was taken into account when further interpreting, discussing and revising the Euro-MCD Instrument.

Next, when comparing responses among subgroups, it turned out that the Norwegian and Swedish respondents rated most outcomes as more important than the Dutch respondents. Furthermore, findings showed that women, older respondents, and professionals not working as a physician gave significantly higher rates than the other respondents. The reasons for these differences were unclear. It might be that cultural differences played a role here (for instance that Scandinavian respondents are more likely to rate the extremely positive answer options). Another possible reason was that Swedish and Norwegian respondents did not yet experience any opportunity for ethical guidance or group reflections and thus were in need of a forum like MCD, whereas these options might be more established in the Netherlands (like group supervision meetings in psychiatry or for physicians). Findings indicated and confirmed the need for a comprehensive instrument, leaving room for a specific focus by different groups of respondents.

The question on perceived importance is further studied in **Chapter 4**, which presents the answers *after* participating in multiple MCD sessions compared with the answers *before* participation. In this study, 443 healthcare professionals from Sweden, Norway and the Netherlands completed the Euro-MCD Instrument after four sessions, and 247 professionals after eight sessions. The majority of them (more than 69 percent) rated all outcomes as 'quite' or 'very' important both *before* and *after* participation in MCD. Outcomes about collaboration, moral reflexivity and moral attitude were rated highest. These findings confirmed the relevance of outcomes in the Euro-MCD Instrument. There was no meaningful difference in ratings when comparing the answers from *before* participation with those *after* participation, suggesting that it does not matter when perceived importance of MCD related outcomes is asked. Nevertheless, considering the overall high rates, the added value of the question on perceived importance became doubtful. Therefore, this question needed reconsideration.

In addition, chapter 4 describes the item structure of the answers to provide insight into possible categorization of outcomes and inform about possible item reduction, with use of factor analyses. Factor analyses did not confirm the predefined six domains but suggested three categories. These categories seemed to represent – to some extent – the following domains from the Euro-MCD Instrument: 'Improved moral reflexivity'; 'Enhanced collaboration'; and a combination of 'Improved moral attitude' and 'Enhanced emotional support'. The categorization of outcomes was taken into account when revising the instrument.

In **Chapter 5**, the item structure of the instrument is also described**,** but now focused on the *experienced* outcomes, during the MCD sessions and in daily practice. Factor analyses revealed four categories of outcomes. Outcomes referring to virtues, skills for ethical analysis, sharing feelings and actions seemed to cluster together. These categories did not confirm the original division into six Euro-MCD domains. Yet, some similarities could be noted, for instance, the Euro-MCD domain 'Improved moral attitude' was again closely linked to the domain 'Enhanced emotional support'. Factor analyses further showed that items in the domains 'Enhanced collaboration', 'Impact on organizational level' and 'Concrete results' did not clearly associate with each other and might thus not be referring to the presupposed domain. These findings were very helpful for further reflecting on and revising the Euro-MCD Instrument.

Next to examining the item structure, chapter 5 assesses the self-reported experienced outcomes of MCD participants. These responses were collected after four and eight MCD sessions and were related to both the MCD sessions and daily practice. After four and eight MCD sessions, the 443 respectively 247 responding healthcare professionals reported having experienced outcomes referring to collaboration, moral attitude and moral reflexivity *during* the sessions. This impact of MCD on both group as well as individual moral learning is in line with the features of MCD. Considering experienced outcomes in *daily practice*, respondents rated all outcomes as experienced to a significantly lower extent than *during MCD sessions*. It might thus be that positive experiences with MCD sessions do not necessarily lead to equally positive experiences in daily practice. This confirms the relevance of distinguishing between these two settings, which was taken into account in the further process of revising the Euro-MCD Instrument.

Chapter 6 presents another field study. The aim of this study was to define and categorize MCD outcomes in a systematic way, with experienced MCD participants in the Netherlands. The participants (N=12) came from a variety of professional backgrounds and diverse healthcare settings. They took part in two focus group sessions which were structured with the method of Concept mapping. The Euro-MCD Instrument was not taken as a starting point, but served as additional input. Focus group members were first asked to think of and brainstorm about possible MCD outcomes, after which additional possible outcomes from the Euro-MCD Instrument were presented and discussed. The brainstorm resulted in a list of 85 possible MCD outcomes, of which 17 came from the additional Euro-MCD input. Secondly, focus group members were asked to individually categorize these outcomes in (for them) meaningful categories. Based on these individual categorizations, point maps and concept maps

were constructed, which were discussed with the focus group members in order to reach consensus on final categories. Eight categories were defined: 1) Organisation and policy, 2) Team development, 3) Personal development focused on the other person, 4) Personal development as professional, focused on skills, 5) Personal development as professional, focused on knowledge, 6) Personal development as an individual, 7) Perception and connection, 8) Concrete action. When comparing these categories with the original Euro-MCD Instrument, some Euro-MCD domains were easily recognized, like Concrete results or Impact on the organization. Furthermore, a division between the individual level, group level and organizational or case level could be recognized. Findings formed a valuable contribution to further reconsidering and re-categorizing the Euro-MCD Instrument.

Finally, **Chapter 7** presents the Euro-MCD 2.0 and describes the process in which this revised instrument has been developed. Decisions on the outcomes in this instrument were not based on empirical findings alone. These decisions not only required a thorough interpretation of all findings, but also input from theoretical viewpoints on goals of MCD and CES in general. A continuous and balanced dialogue was therefore essential to select the theoretically justified and empirically sound list of MCD related outcomes. This dialogue, described in chapter 7, integrates the empirical findings from previous chapters with theoretical reflections from the research team members and input from European experts in CES and ethics theory. The empirical findings, including an additional field study among Swedish managers, served as a source for the dialogue by indicating points for discussion and suggesting possible re-categorization of outcomes. During this dialogue of several rounds, research team members individually wrote proposals for revision which were then thoroughly discussed, until final agreement was reached on the revised Euro-MCD Instrument: the Euro-MCD 2.0. The revision process was an intense and pioneering exercise as there was no clear protocol on how to develop and revise a measurement tool in this particular research field of evaluation of CES.

As mentioned before, Chapter 7 also presents the result of the revision process: the Euro-MCD 2.0. The revised instrument consists of 15 items, categorized into three domains: Moral competence, Moral teamwork and Moral action. Moral competence entails items on moral sensitivity, analytical skills and a virtuous attitude. Moral teamwork includes items on open dialogue and supportive relationships, and Moral action consists of items on moral decision-making and responsible care. The original items and domains can still – to some extent – be recognized in the revised version. For instance, several items from the former domain of 'Enhanced collaboration' can be

found in the new domain 'Moral teamwork'. Next to changing items and domains, the answer options, sentence structure and context of outcomes have been reformulated. The question on perceived importance is no longer part of the instrument. Respondents to the Euro-MCD 2.0 will now be asked to rate their agreement for experiencing each outcome, either regarding the *MCD sessions*, or with regard to *daily practice*.

In the end, the Euro-MCD 2.0 is shorter and less complex than the original Euro-MCD Instrument, and items and domains are more strongly substantiated by empirical findings, theoretical reflections and input from experts and research participants. The revision process has strengths and limitations. We hope it can function as an example on how to use, test and improve an evaluation tool in the research field of CES. Parts of the Euro-MCD 2.0 Instrument might be useful for the evaluation of outcomes of other forms of CES as well. The Euro-MCD 2.0 can now be used to assess outcomes of MCD in various healthcare settings in order to monitor, professionalize and optimize MCD as supportive service for healthcare professionals.

NEDERLANDSE SAMENVATTING

Dit proefschrift beschrijft het toepassen, testen en verbeteren van een Europees instrument om uitkomsten van moreel beraad te meten: het 'European Moral Case Deliberation Outcomes (Euro-MCD) Instrument'. Dit instrument werd in 2014 gepresenteerd als methode om de uitkomsten van ethiek-ondersteunende activiteiten, in dit geval moreel beraad, systematisch in kaart te brengen en te evalueren. Moreel beraad is een groepsdialoog tussen zorgprofessionals over een morele vraag op basis van een moreel lastige situatie uit de praktijk. De dialoog wordt geleid door een daartoe opgeleide gespreksleider, die hiervoor een gestructureerde gespreksmethode kan gebruiken.

In **hoofdstuk 1** wordt het doel van het promotieonderzoek geïntroduceerd. Het hoofdstuk omvat een beschrijving van klinische ethiekondersteuning en dienstverlening in het algemeen, en van moreel beraad in het bijzonder. Ook beschrijft dit hoofdstuk de behoefte aan en redenen voor systematische en wetenschappelijk onderbouwde methodes voor evaluatieonderzoek in de klinische ethiekondersteuning en dienstverlening.

Dienstverlening vanuit de klinische ethiek, ook wel 'ethiek support' genoemd, is erop gericht zorgprofessionals te ondersteunen bij het omgaan met moreel lastige situaties. Deze dienstverlening wordt steeds meer een sterk aanbevolen standaard onderdeel van zorgorganisaties in vele gezondheidszorgsectoren in Europa. Daardoor komt de vraag op of en in welke mate de dienstverlening inderdaad zorgprofessionals ondersteunt bij moreel lastige situaties, zoals wordt beoogd. En specifieker nog: wat de uitkomsten zijn. Kennis over de uitkomsten van ethiek support kan worden gebruikt om de inzet, implementatie en kwaliteit van de ethiek-ondersteunende dienstverlening te verbeteren.

Maar de evaluatie van (uitkomsten van) ethiekondersteuning is complex. Allereerst omdat de ethiekondersteuning zélf complex is: het wordt op allerlei manieren uitgevoerd en vormgegeven. Ook is het niet mogelijk om algemene definities op te stellen van de 'juiste' uitkomsten waartoe ethiekondersteuning moet leiden. Deze definities zijn namelijk afhankelijk van de context en doelen van de specifieke ethiek-ondersteunende activiteit op dat moment. Wat een 'juiste' uitkomst zou zijn, is vaak precies de vraag in (bijvoorbeeld) moreel beraad en het antwoord hoeft niet in elke situatie hetzelfde te zijn: wat is *nu hier* goede zorg? Wat is de moreel juiste beslissing *in deze situatie*? Bovendien: op basis van onze hermeneutisch filosofische visie op klinische

ethiekondersteuning en moreel beraad ligt de morele expertise bij de deelnemers van het moreel beraad: *zij* voeren een dialoog over de morele vragen. Vanuit dit theoretisch oogpunt is aandacht voor de stem van de deelnemers aan moreel beraad (of van andere eindgebruikers van klinische ethiekondersteuning) cruciaal. Dus bij het evalueren van moreel beraad is hun stem onmisbaar (en dit geldt ook voor andere dienstverlenende activiteiten vanuit de klinische ethiek). Desalniettemin is hun stem niet allesbepalend en dienen ook experts een rol te spelen in het selecteren van uitkomsten. Parallel hieraan is er behoefte aan kwantitatieve methoden om deze uitkomsten van klinische ethiekondersteuning systematisch in kaart te brengen, met ruimte voor een variatie aan mogelijke uitkomsten, en om uitkomsten te vergelijken in de verschillende contexten waarin ze worden toegepast. Er bestaan echter nog weinig empirisch onderbouwde methodes in dit onderzoeksveld.

In 2014 werd daarom het Euro-MCD Instrument ontwikkeld om uitkomsten van moreel beraad te kunnen bepalen. Het instrument focust op de mogelijke uitkomsten volgens deelnemers aan moreel beraad. Het is dus in principe niet normatief; dat moreel beraad tot deze uitkomsten zou *moeten* leiden. Het instrument bevat een lijst van 26 mogelijke uitkomsten van moreel beraad, verdeeld in zes domeinen: 1) Verbeterde emotionele ondersteuning; 2) Verbeterde samenwerking; 3) Verbeterde morele reflexiviteit; 4) Verbeterde morele houding; 5) Impact op organisatieniveau en 6) Concrete resultaten. Deze lijst is gebaseerd op een literatuurstudie, verder ontwikkeld met behulp van een Delphi panel met experts in ethiek support en kort getest op inhoudsvaliditeit. Respondenten krijgen de lijst voorafgaand aan hun deelname aan moreel beraad gepresenteerd met de vraag of ze voor elke uitkomst aan willen geven hoe belangrijk ze de uitkomst vinden. Zo kan worden nagegaan of en hoe de voorgestelde uitkomsten belangrijk worden gevonden en welke prioriteit ze hebben. Deze informatie is belangrijk omdat de respondenten (als deelnemers van moreel beraad) zo daadwerkelijk een stem krijgen, zoals eerder werd benadrukt. Ook is deze informatie nodig om moreel beraad in een specifieke setting eventueel bij te sturen op basis van de ideeën en verwachtingen van de deelnemers. Respondenten wordt vervolgens na enkele moreel beraad bijeenkomsten gevraagd om aan te geven of en in welke mate ze elke uitkomst hebben ervaren. Dit wordt apart gevraagd voor de situatie tijdens de moreel beraden en de situatie in hun dagelijks werk. Dat laatste geeft specifiek inzicht in de zelf-gerapporteerde impact in de echte zorgpraktijk. Sinds de presentatie van het Euro-MCD Instrument in 2014 hebben we het instrument in meerdere onderzoeken toegepast om het verder te ontwikkelen. In dit proefschrift worden vijf van deze onderzoeken gepresenteerd, om zo het Euro-MCD Instrument te gebruiken, te testen en te verbeteren.

Hoofdstuk 2 beschrijft een Nederlands onderzoek waarin het Euro-MCD Instrument werd toegepast in 12 instellingen in verschillende gezondheidszorgsectoren: verpleeghuizen, psychiatrie, ziekenhuizen en zorginstellingen voor mensen met een beperking. Het doel van dit onderzoek was om te beschrijven hoe belangrijk de Euro-MCD uitkomsten waren volgens zorgprofessionals, nog voordat ze deelnamen aan moreel beraad. De Euro-MCD vragenlijst werd in totaal door 331 zorgprofessionals ingevuld, waarvan 13 ook werden geïnterviewd om een verdiepend inzicht te krijgen in hun waardering van mogelijke uitkomsten. De resultaten lieten zien dat respondenten met name de uitkomsten over teamsamenwerking belangrijk vonden en in iets mindere mate de uitkomsten over concrete resultaten. Dit komt overeen met eerdere evaluatiestudies van moreel beraad. Het is ook in lijn met literatuur over doelen van moreel beraad, waarin uitkomsten en doelen gerelateerd aan teamsamenwerking worden benadrukt, zoals open communicatie en een wederzijds begrip van de situatie. In de interviews noemden zorgprofessionals verder nog nieuwe uitkomsten die betrekking hadden op het thema kwaliteit van zorg. Deze uitkomsten ontbreken in de originele Euro-MCD vragenlijst. Daarmee wordt direct al een eerste punt aangereikt voor heroverweging wat betreft het aanpassen van de Euro-MD vragenlijst.

In **hoofdstuk 3** wordt een Europees onderzoek gepresenteerd dat ook gericht was op het belang dat zorgprofessionals hechten aan de diverse uitkomsten van moreel beraad, voorafgaand aan hun deelname aan moreel beraad. In dit onderzoek lag de focus echter op de verschillen in prioritering van mogelijke uitkomsten tussen zorgprofessionals uit verschillende landen, professionele achtergronden en gezondheidszorgsectoren. De Euro-MCD vragenlijst werd hiervoor afgenomen bij een grotere groep: in totaal 703 zorgprofessionals uit Nederland, Noorwegen en Zweden. Uit hun antwoorden blijkt dat de meesten van hen (meer dan 76 procent) alle 26 uitkomsten van het instrument 'belangrijk' of 'heel belangrijk' vonden. Uitkomsten die betrekking hadden op de onderlinge samenwerking en op concrete resultaten werden het meest belangrijk gevonden. Voordat de respondenten de lijst met uitkomsten onder ogen kregen, konden ze in een open antwoordruimte zelf uitkomsten van moreel beraad opschrijven die ze belangrijk vonden. Uit deze open antwoorden kwam een nieuwe categorie uitkomsten naar voren: de interactie met patiënten en hun families. Dit werd meegenomen bij het verder interpreteren, bespreken en herzien van de Euro-MCD vragenlijst.

In dit onderzoek bleek verder dat de Noorse en Zweedse respondenten de meeste uitkomsten belangrijker vonden dan de Nederlandse respondenten. De resultaten lieten ook zien dat vrouwelijke respondenten, oudere respondenten en de niet-medici de uitkomsten significant belangrijker vonden dan de andere respondenten. De redenen

voor deze verschillen zijn onduidelijk. Wellicht is het te verklaren aan de hand van de culturele verschillen, bijvoorbeeld dat Scandinavische respondenten in het algemeen meer geneigd zijn om de extreme antwoordopties te kiezen dan Nederlanders. Het kan ook komen doordat de Zweedse en Noorse respondenten ten tijde van het invullen van de vragenlijst nog geen ervaring hadden met methoden voor klinische ethiekondersteuning en teamreflectie en hier sterke behoefte aan hadden, terwijl deze methoden in Nederland destijds al meer ingeburgerd waren in de zorgpraktijk (denk aan supervisiebijeenkomsten voor psychiaters). De resultaten laten hiermee zien dat de Euro-MCD vragenlijst in staat is om verschillen tussen subgroepen aan te duiden. Deze variatie bevestigt de relevantie van een breed georiënteerde vragenlijst die ruimte biedt voor verschillende focussen in diverse doelgroepen.

De vraag naar hoe belangrijk de uitkomsten werden gevonden, werd verder bestudeerd in **hoofdstuk 4**, waarin het belang dat de respondenten hechtten aan de uitkomsten *na* deelname in een serie moreel beraden werd vergeleken met hun antwoorden *voor* deelname. In dit onderzoek vulden 443 zorgprofessionals de vragenlijst in na vier moreel beraden en 247 zorgprofessionals na acht beraden. Deze zorgprofessionals kwamen uit Zweden, Noorwegen en Nederland. De meesten van hen (meer dan 69 procent) vonden alle uitkomsten 'belangrijk' of 'heel belangrijk', zowel *voor* als *na* deelname in moreel beraad. Uitkomsten die te maken hadden met samenwerking, morele reflexiviteit en de morele houding scoorden het hoogst. Deze bevindingen bevestigen de relevantie van de uitkomsten van de Euro-MCD vragenlijst. Er was geen betekenisvol verschil tussen de antwoorden *voor* en *na* deelname. Dit suggereert dat het niet uitmaakt op welk moment zorgprofessionals gevraagd wordt naar hun ideeën over de belangrijkheid van de uitkomsten. Vanwege de hoge scores op alle uitkomsten wordt onduidelijk wat nog de toegevoegde waarde is van de belangrijkheids-vraag in de Euro-MCD vragenlijst. Deze vraag, naar de belangrijkheid van de uitkomsten, komt in aanmerking voor heroverweging.

Verder beschrijft hoofdstuk 4 de factorstructuur van de antwoorden, via factoranalyses, om inzicht te geven in de mogelijke categorisatie van uitkomsten en om te informeren over mogelijke itemreductie. De items in de Euro-MCD vragenlijst waren oorspronkelijk gecategoriseerd in zes domeinen. Maar dit werd niet bevestigd in de factoranalyses, want daaruit kwam een verdeling in drie categorieën naar boven. Deze drie categorieën lijken – in een bepaalde mate – de volgende Euro-MCD domeinen te representeren: 1) Verbeterde morele reflexiviteit; 2) Verbeterde samenwerking en 3) een combinatie van Verbeterde morele houding en Verbeterde emotionele ondersteuning. De categorisatie van de uitkomsten moet dus (ook) worden herzien.

In **hoofdstuk 5** wordt de factorstructuur van de vragenlijst ook beschreven, maar nu gericht op de *ervaren* uitkomsten (niet de belangrijkheid) in de moreel beraden en in de dagelijkse praktijk. Uit de factoranalyses kwamen vier categorieën naar voren. Uitkomsten die verwezen naar deugden, vaardigheden voor ethische analyse, het delen van gevoelens en het concrete handelen leken onderling te clusteren. Ook deze factoranalyses bevestigden dus niet de oorspronkelijke verdeling van de 26 uitkomsten in zes Euro-MCD domeinen. Toch waren er overeenkomsten te vinden, want het Euro-MCD domein 'Verbeterde morele houding' had bijvoorbeeld nu ook weer sterke associaties met het Euro-MCD domein 'Verbeterde emotionele ondersteuning'. De factoranalyses lieten verder zien dat uitkomsten in de domeinen 'Verbeterde samenwerking', 'Impact op organisatieniveau' en 'Concrete resultaten' geen duidelijke associaties met elkaar toonden en daarmee dus mogelijk geen eenduidig samenhangende domeinen vormen. Deze bevindingen waren erg nuttig voor het verder reflecteren op en herzien van de Euro-MCD vragenlijst.

Naast het bestuderen van de factorstructuur beschrijft hoofdstuk 5 ook de zelf-gerapporteerde ervaren uitkomsten van deelnemers aan moreel beraad. Deze uitkomsten werden na vier en na acht moreel beraden bevraagd en gingen zowel over de beraden zelf als de dagelijkse zorgpraktijk. De vragenlijst werd na vier moreel beraden door 443 en na acht beraden door 247 zorgprofessionals ingevuld. Uit de antwoorden blijkt dat deze zorgprofessionals tijdens de moreel beraden uitkomsten ervaarden die te maken hadden met de onderlinge samenwerking, hun morele houding en hun morele reflexiviteit. Deze impact, zowel op groeps- als individueel niveau, is in lijn met de eigenschappen van moreel beraad wat betreft het morele leren. Wat betreft de ervaren uitkomsten in de *dagelijkse praktijk* bleek dat de respondenten alle uitkomsten significant lager scoorden dan hun ervaring *tijdens de beraden.* Dit duidt erop dat de ervaren uitkomsten tijdens de moreel beraden niet per definitie ook in dezelfde mate ervaren worden in de dagelijkse praktijk. Hieruit blijkt het belang om deze twee contexten (de beraden en de dagelijkse praktijk) te onderscheiden in de vragenlijst. Ook dit kan worden meegenomen in het verdere proces van het herzien van de Euro-MCD vragenlijst.

Hoofdstuk 6 presenteert een ander onderzoek, waarin het doel was om uitkomsten van moreel beraad te definiëren en te categoriseren op een systematische manier. Dit werd gedaan met 12 zeer ervaren deelnemers van moreel beraad in Nederland, die ook gespreksleiders waren of hiertoe werden opgeleid, met verschillende professionele achtergronden en vanuit diverse gezondheidszorgsectoren. Zij deden mee aan twee focusgroep sessies die gestructureerd werden met de methode van Concept Mapping.

De Euro-MCD vragenlijst was hierbij niet het startpunt, maar diende ter aanvulling. Allereerst werd aan de deelnemers gevraagd om zelfstandig mogelijke uitkomsten van moreel beraad te noteren. Hierover werd vervolgens gezamenlijk gebrainstormd en pas daarna werden de uitkomsten van de Euro-MCD vragenlijst gepresenteerd en bediscussieerd. Deze brainstorm resulteerde in een lijst van 85 mogelijke uitkomsten van moreel beraad, waarvan 17 uit de aanvullende Euro-MCD-input kwamen. Ten tweede werd aan de deelnemers van de focusgroep gevraagd om deze uitkomsten zelfstandig te categoriseren in (volgens hen) betekenisvolle categorieën. Deze individuele categorisaties dienden als input voor het maken van 'point maps' en 'concept maps'. Dit zijn visuele overzichten waarop alle 85 uitkomsten van moreel beraad zodanig waren gepositioneerd, dat je aan de afstand tussen de uitkomsten kon zien in hoeverre de deelnemers ze in dezelfde categorie hadden geplaatst. Deze overzichten werden daarna weer met de deelnemers van de focusgroep besproken. Het doel was om consensus te krijgen over een definitieve categorisatie van de uitkomsten. Het resultaat hiervan was een verdeling in acht categorieën: 1) Organisatie en Beleid; 2) Teamontwikkeling; 3) Persoonlijke ontwikkeling gericht op de ander; 4) Persoonlijke ontwikkeling als professional, gericht op vaardigheden; 5) Persoonlijke ontwikkeling als professional, gericht op kennis; 6) Persoonlijke ontwikkeling als persoon; 7) Beleving en verbinding; 8) Concreet handelen. Deze categorieën vertonen duidelijke en soms bijna letterlijke overeenkomsten met de Euro-MCD domeinen, zoals de domeinen 'Concrete resultaten' en 'Impact op organisatieniveau'. Ook de driedeling van uitkomsten in individueel, groeps- en casusniveau is terug te zien in deze categorisatie. De resultaten vormden een waardevolle bijdrage aan het verder categoriseren en herzien van de verschillende uitkomsten van moreel beraad in de Euro-MCD vragenlijst.

Tot slot: **hoofdstuk 7** presenteert de nieuwe Euro-MCD 2.0 en beschrijft het proces waarin deze herziene vragenlijst geconstrueerd werd. De items in deze herziene vragenlijst zijn niet enkel op de empirische onderzoeken met de Euro-MCD 2.0 gebaseerd. De selectie van deze items kon alleen plaatsvinden na een grondige interpretatie van alle onderzoeksresultaten én na input van theoretische visies over de doelen van moreel beraad en klinische ethiekondersteuning in het algemeen. Voor het samenstellen van een theoretisch gerechtvaardigde en empirisch onderbouwde lijst met uitkomsten van moreel beraad was een continue en gebalanceerde dialoog essentieel. Deze dialoog wordt beschreven in hoofdstuk 7 en combineert de onderzoeksresultaten uit de eerdere hoofdstukken met theoretische reflecties van het onderzoeksteam. Ook werd daarbij input van Europese experts in ethiekondersteuning en klinische ethiek betrokken. De onderzoeksresultaten, inclusief een aanvullend onderzoek onder Zweedse zorgmanagers, dienden als bron voor deze dialoog tussen

empirie en theorie. De onderzoeksleden schreven eerst individueel een voorstel over hoe met deze discussiepunten en suggesties om te gaan, om hier vervolgens (op meerdere momenten) met elkaar de dialoog over te voeren. Dit proces ging continu door, totdat er definitieve overeenstemming was over de herziene Euro-MCD vragenlijst: de Euro-MCD 2.0. Het revisieproces was intens en het was pionieren, omdat er geen vastomlijnd protocol bestond voor het ontwikkelen en herzien van een meetinstrument in dit specifieke onderzoeksveld van evaluatie van klinische ethiekondersteuning.
In hoofdstuk 7 wordt ook de Euro-MCD 2.0 zelf gepresenteerd. De herziene vragenlijst bestaat uit 15 items, gecategoriseerd in drie domeinen: 1) Morele competentie, 2) Moreel teamwerk en 3) Moreel handelen. ´Morele competentie´ bevat items over morele sensitiviteit, analytische vaardigheden en een morele houding. ´Moreel teamwerk´ bestaat uit items over een open dialoog en morele steun van collega´s en ´Moreel handelen´ bevat items over morele besluitvorming en verantwoorde zorg. De items en domeinen uit de originele Euro-MCD vragenlijst kunnen – in zekere mate – herkend worden in de herziene versie. Een aantal items uit het oorspronkelijke domein 'Verbeterde samenwerking' is bijvoorbeeld terug te vinden in het nieuwe domein 'Moreel teamwerk'. Naast het veranderen van items en domeinen zijn ook de instructies, antwoordopties, zinsopbouw en de context van de items aangepast. De vraag naar belangrijkheid is niet meer opgenomen in de herziene vragenlijst. Respondenten van de Euro-MCD 2.0 wordt nu gevraagd in hoeverre ze het eens zijn met de uitkomst, denkend aan hun ervaringen tijdens de moreel beraden of denkend aan hun ervaringen in de dagelijkse praktijk.

De Euro-MCD 2.0 is korter en minder complex dan het originele Euro-MCD Instrument uit 2014. De items en domeinen zijn sterker gefundeerd op onderzoeksresultaten, theoretische reflecties en input van experts en onderzoeksdeelnemers. Het revisieproces heeft sterke en zwakke punten. We hopen dat het proces en het resultaat kunnen fungeren als voorbeeld voor het gebruiken, testen en verbeteren van een tool voor het evalueren van klinische ethiekondersteuning. De Euro-MCD 2.0 kan ook nuttig zijn voor het evalueren van (uitkomsten van) andere vormen van ethiekondersteuning. De nieuwe Euro-MCD 2.0 kan nu in de praktijk worden ingezet om inzicht te krijgen in de ervaren uitkomsten van moreel beraad in diverse domeinen van de gezondheidszorg. Op die manier draagt de Euro-MCD 2.0 bij aan het monitoren, professionaliseren en optimaliseren van moreel beraad, opdat moreel beraad daadwerkelijk een *ondersteunende* dienst voor zorgprofessionals en de zorgpraktijk kan zijn.

Dankwoord
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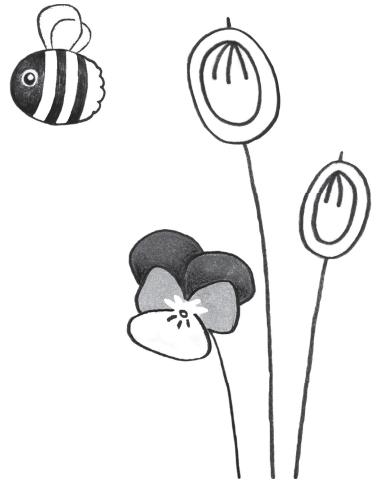

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ABOUT THE AUTHOR

Janine de Snoo-Trimp was born on 12 May 1991 in Zoetermeer, the Netherlands. In 2009, she graduated from high school at Calvijn College in Goes and started studying Health Sciences at the VU University Amsterdam. She finished her Bachelor's Degree in 2012 and started to combine the Master program of Health Sciences with the Master of Philosphy, Bioethics and Health. In 2014, she did an internship at the Department of Public and Occupational Health at the VU Medical Center. Her master thesis was about shared decision-making in the setting of advanced cancer care. She obtained her Master's Degree in 2014. In this year, she started to work as a junior researcher at the Department of Medical Humanities at the VU Medical Center. Janine also started to facilitate moral case deliberation and completed the national extensive training for this in 2015. Her PhD research concerns a European project on the outcomes of moral case deliberation and the revision of an instrument to assess these outcomes (the Euro-MCD Instrument). During this project, she spent a few weeks at the Center of Medical Ethics in Oslo. She was further involved in some other projects, including coordinating the training programs for facilitators of moral case deliberation, coordinating and conducting a multiple-case study on the impact of moral case deliberation within a care institution for mentally disabled people and co-creating an ethics support tool for the allocation of beds within the hospital. Alongside research, she was and presently is involved in teaching a bioethics course at Amsterdam University College and some ethics courses within the School of Medical Sciences at the VU University. She currently works as a researcher on ethics support at the Department of Ethics, Law and Humanities (former name: Medical Humanities) at Amsterdam UMC. Janine is married to Machiel de Snoo and mother of a daughter and a son, Lauren and Teije.

LIST OF PUBLICATIONS

De Snoo-Trimp J.C., De Vet H.C.W., Widdershoven G.A.M., Molewijk A.C. & Svantesson M. (2020). Moral competence, moral teamwork and moral action – the European Moral Case Deliberation Outcomes (Euro-MCD) Instrument 2.0 and its revision process. *BMC Medical Ethics,* 21:53.

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De Snoo-Trimp J. C., Brom, L., Pasman H. R. W., Onwuteaka-Philipsen B. D., Widdershoven G. A.M. (2015). Perspectives of medical specialists on sharing decisions in cancer care: a qualitative study concerning chemotherapy decisions with patients with recurrent glioblastoma. *The Oncologist*, *20*(10), 1182-1188.

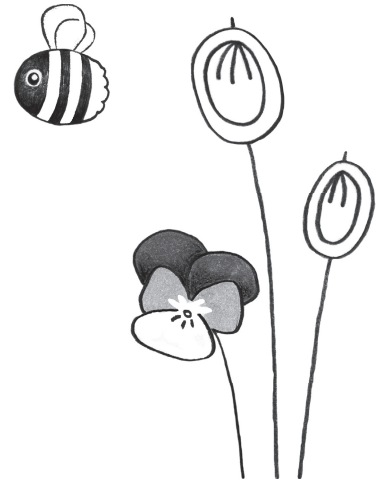
Supplementary materials

The Euro-MCD Instrument 2.0 for assessing outcomes in the moral case deliberation session(s)

The Euro-MCD Instrument 2.0 for assessing outcomes in daily practice

De Nederlandse Euro-MCD 2.0 - Vragenlijst voor uitkomsten in de moreel beraad sessie(s)

De Nederlandse Euro-MCD 2.0 - Vragenlijst voor uitkomsten in het dagelijks werk



The Euro-MCD Instrument 2.0

Experienced outcomes during Moral Case Deliberation

Instruction: Please rate the extent to which you agree on the following statements, when thinking about the MCD session(s) that you participated in.	Strongly agree	Slightly agree	Slightly disagree	Strongly disagree	I don't know
1st Category: Moral Competence					
Moral Sensitivity					
1. I recognize a situation as being ethically difficult					
2. I am aware of others' perspectives in ethically difficult situations					
Analytical Skills					
3. I can identify the different values at stake in ethically difficult situations					
4. I can formulate arguments in favor of and against different courses of action in ethically difficult situations					
Virtuous attitude					
5. I listen with an open mind to others when discussing an ethically difficult situation					
6. I speak up in ethically difficult situations					
2nd Category: Moral Teamwork					
We = the people with whom you have participated in the MCD session(s)					
Open Dialogue					
7. We openly express our viewpoints in ethically difficult situations					
8. We all have opportunities to express our viewpoint on ethically difficult situations					
9. We respect different viewpoints when discussing ethically difficult situations					
Supportive Relationships					
10. We feel secure to share emotions in ethically difficult situations					
11. We support each other when dealing with ethically difficult situations					
3rd Category: Moral Action					
Moral decision-making					
12. We make decisions on how to act in ethically difficult situations					
13. We base our decisions on moral considerations in ethically difficult situations					
Responsible care					
14. We are responsive to the values and needs of patients and their families in ethically difficult situations					
15. We are able to explain and justify our care towards patients and their families					

The Euro-MCD Instrument 2.0

Experiences in daily practice

Instruction: Please rate the extent to which you agree on the following statements, when thinking about your daily practice.	Strongly agree	Slightly agree	Slightly disagree	Strongly disagree	I don't know
1st Category: Moral Competence					
Moral Sensitivity					
1. I recognize a situation as being ethically difficult					
2. I am aware of others' perspectives in ethically difficult situations					
Analytical Skills					
3. I can identify the different values at stake in ethically difficult situations					
4. I can formulate arguments in favor of and against different courses of action in ethically difficult situations					
Virtuous attitude					
5. I listen with an open mind to others when discussing an ethically difficult situation					
6. I speak up in ethically difficult situations					
2nd Category: Moral Teamwork					
We = the people with whom you work in your daily practice.					
Open Dialogue					
7. We openly express our viewpoints in ethically difficult situations					
8. We all have opportunities to express our viewpoint on ethically difficult situations					
9. We respect different viewpoints when discussing ethically difficult situations					
Supportive Relationships					
10. We feel secure to share emotions in ethically difficult situations					
11. We support each other when dealing with ethically difficult situations					
3rd Category: Moral Action					
Moral decision-making					
12. We make decisions on how to act in ethically difficult situations					
13. We base our decisions on moral considerations in ethically difficult situations					
Responsible care					
14. We are responsive to the values and needs of patients and their families in ethically difficult situations					
15. We are able to explain and justify our care towards patients and their families					

Vragenlijst Uitkomsten Moreel Beraad – De Euro-MCD 2.0

*Ervaringen in **moreel beraad***

Deze vragenlijst gaat over de moreel beraad sessie(s). Bedenk of en in hoeverre je het eens bent met de stellingen. Er is geen goed of fout, en het gaat over een algemene indruk! Met een 'moreel lastige situatie' wordt een situatie bedoeld waarin je onzeker bent, ongemak ervaart of twijfelt over wat het juiste is om te doen, of waarin je idee over wat juist is botst met dat van anderen.

	Helemaal mee eens	Een beetje **mee eens**	Een beetje **mee oneens**	**Helemaal mee oneens**	Ik weet het niet
Morele competenties					
1. Ik herken een moreel lastige situatie als zodanig	☐	☐	☐	☐	☐
2. Ik ben me bewust van de perspectieven van andere betrokkenen in een moreel lastige situatie	☐	☐	☐	☐	☐
3. Ik kan de verschillende waarden zien die een rol spelen in een moreel lastige situatie	☐	☐	☐	☐	☐
4. Ik kan voor- en tegenargumenten bedenken voor verschillende handelingsopties in een moreel lastige situatie	☐	☐	☐	☐	☐
5. Ik luister met een open houding naar anderen bij het bespreken van een moreel lastige situatie	☐	☐	☐	☐	☐
6. Ik spreek me uit in een moreel lastige situatie	☐	☐	☐	☐	☐
Moreel teamwerk					
In de vragen hieronder gaat het over 'we'. Denk hierbij aan je team of aan de collega's met wie je aan de moreel beraad sessie(s) deelnam.					
7. We komen openlijk uit voor onze standpunten in een moreel lastige situatie	☐	☐	☐	☐	☐
8. We hebben allen de gelegenheid om onze standpunten te uiten over een moreel lastige situatie	☐	☐	☐	☐	☐
9. We respecteren verschillende standpunten als we samen een moreel lastige situatie bespreken	☐	☐	☐	☐	☐
10. We voelen ons veilig om emoties te delen in een moreel lastige situatie	☐	☐	☐	☐	☐
11. We steunen elkaar bij het omgaan met een moreel lastige situatie	☐	☐	☐	☐	☐
Moreel handelen					
12. We komen tot vervolgstappen over hoe te handelen in een moreel lastige situatie	☐	☐	☐	☐	☐
13. We baseren onze besluiten op morele overwegingen in een moreel lastige situatie	☐	☐	☐	☐	☐
14. We hebben aandacht voor de waarden en behoeften van patiënten en hun families in een moreel lastige situatie	☐	☐	☐	☐	☐
15. We zijn in staat om onze zorgverlening uit te leggen en te verantwoorden aan patiënten en hun families	☐	☐	☐	☐	☐

Vragenlijst Uitkomsten Moreel Beraad – De Euro-MCD 2.0

*Ervaringen in het **dagelijks werk** – voor of na moreel beraad*

Deze vragenlijst gaat over je dagelijkse werk. Bedenk of en in hoeverre je het eens bent met de stellingen. Er is geen goed of fout, en het gaat over een algemene indruk! Met een 'moreel lastige situatie' wordt een situatie bedoeld waarin je onzeker bent, ongemak ervaart of twijfelt over wat het juiste is om te doen, of waarin je idee over wat juist is botst met dat van anderen.

	Helemaal mee eens	Een beetje **mee eens**	Een beetje **mee oneens**	**Helemaal mee oneens**	Ik weet het niet
Morele competenties					
1. Ik herken een moreel lastige situatie als zodanig	☐	☐	☐	☐	☐
2. Ik ben me bewust van de perspectieven van andere betrokkenen in een moreel lastige situatie	☐	☐	☐	☐	☐
3. Ik kan de verschillende waarden zien die een rol spelen in een moreel lastige situatie	☐	☐	☐	☐	☐
4. Ik kan voor- en tegenargumenten bedenken voor verschillende handelingsopties in een moreel lastige situatie	☐	☐	☐	☐	☐
5. Ik luister met een open houding naar anderen bij het bespreken van een moreel lastige situatie	☐	☐	☐	☐	☐
6. Ik spreek me uit in een moreel lastige situatie	☐	☐	☐	☐	☐
Moreel teamwerk					
In de vragen hieronder gaat het over 'we'. Denk hierbij aan je team of aan de collega's met wie je het meeste werkt.					
7. We komen openlijk uit voor onze standpunten in een moreel lastige situatie	☐	☐	☐	☐	☐
8. We hebben allen de gelegenheid om onze standpunten te uiten over een moreel lastige situatie	☐	☐	☐	☐	☐
9. We respecteren verschillende standpunten als we samen een moreel lastige situatie bespreken	☐	☐	☐	☐	☐
10. We voelen ons veilig om emoties te delen in een moreel lastige situatie	☐	☐	☐	☐	☐
11. We steunen elkaar bij het omgaan met een moreel lastige situatie	☐	☐	☐	☐	☐
Moreel handelen					
12. We komen tot vervolgstappen over hoe te handelen in een moreel lastige situatie	☐	☐	☐	☐	☐
13. We baseren onze besluiten op morele overwegingen in een moreel lastige situatie	☐	☐	☐	☐	☐
14. We hebben aandacht voor de waarden en behoeften van patiënten en hun families in een moreel lastige situatie	☐	☐	☐	☐	☐
15. We zijn in staat om onze zorgverlening uit te leggen en te verantwoorden aan patiënten en hun families	☐	☐	☐	☐	☐

ABOUT THE COVER

Studying outcomes of moral case deliberation can be seen as working in the garden: digging up unexplored soil, finding and using the right tools to happily gather beautiful flowers and fruits in the end. With one's feet on the ground and attention to detail, the gardener tries to make it a flourishing and colorful whole. In our research, we also tried to keep our feet on the ground with our focus on the experiences from practice, with a critical view on our questionnaire-items and an open view on the complete picture of the intended harvest. For us, this harvest concerned a variety of lively outcomes of moral case deliberation. Working in this research-garden was sometimes puzzling, but overall an informative search with new insights, both personally for me as well as in general for the research field of ethics support. And maybe moral case deliberation *itself* can even be compared to spending an afternoon in the garden together: searching and digging to deepen the case, gathering fruits of this together in order to harvest progress in the daily care practices.

Het bestuderen van uitkomsten van moreel beraad kan worden vergeleken met het werken in de tuin: voorzichtig onontgonnen grond omspitten, het goede gereedschap vinden en gebruiken om uiteindelijk vol verwondering mooie bloemen en vruchten te plukken. Met de voeten in de klei en met oog voor detail probeert de tuinman er een bloeiend en kleurrijk geheel van te maken. In het onderzoek probeerden we ook de voeten in de klei te houden door ons te richten op de ervaringen uit de praktijk, met een kritische blik op onze vragenlijst-items en een open blik op het grote geheel van de beoogde oogst. Deze oogst was bij ons een variatie aan kleurrijke uitkomsten van moreel beraad. Het werken in deze onderzoekstuin was soms een puzzel, een zoekplaatje, maar bovendien een leerzame zoektocht met nieuwe inzichten voor zowel mij persoonlijk als voor het bredere onderzoeksveld van ethiekondersteuning. En wellicht is moreel beraad zélf ook wel te zien als een middagje samen in de tuin werken: graven en spitten om de casus te verdiepen, hier vervolgens samen de vruchten van plukken om verbetering te oogsten in de dagelijkse zorgpraktijk.

Moral case deliberation is a group dialogue in which healthcare professionals jointly reflect on ethically difficult situations in their daily practice. This thesis focuses on outcomes of moral case deliberation and describes the process of using, testing and improving the Euro-MCD Instrument to assess outcomes. This process consisted of empirical field studies, experiences of participants of moral case deliberation, theoretical reflections, and input from experts in the field of ethics support. The Euro-MCD 2.0 is presented and can now be used to learn about the impact of moral case deliberation in the various healthcare contexts where it is and may be applied.