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Dilemmas in child protection

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Chapter 7

General discussion

This dissertation aimed to gain insight into the influence of methods and decision-maker factors on decision-making in child maltreatment cases, including research into methods that may improve the decision-making process and outcomes. Child maltreatment is a severe problem that has life-long consequences for children, and it thus needs to be recognized and addressed in a timely and adequate manner. Good decision-making is at the heart of the care process. Professionals, in collaboration with parents and children, perform assessments and make decisions continuously. For example, they must assess whether or not a child maltreatment investigation is necessary and decide how to proceed to ensure child safety. Previous research into decision-making processes reveals that professionals quite often disagree in their judgments and decisions, and that this may be due to a lack of clear guidelines and decision support aids.

In this thesis, we studied the decisions and the preceding decision-making process in child maltreatment cases. We began by performing a literature review to discover methods that could improve decision-making in child welfare and child protection. Subsequently, we investigated the effects of ORBA, a structured decision-making method, in two practice-oriented studies. The purpose of the first study was to investigate whether the application of the ORBA method would lead to a more systematic and transparent decision-making process in cases of suspected child maltreatment. The purpose of the second study was to examine the interrater reliability of trained and untrained professionals. Our third study examined the reliability and validity of LIRIK, a risk assessment instrument, while our final study focused on the rationales behind the decision to place a child in out-of-home care or not in the case of suspected or substantiated abuse. The purpose of the latter study was to discover whether these rationales predict decisions on out-of-home placement, in addition to risk assessments by and attitudes and work experience of the decision-makers.

This final chapter will summarize the main findings of each study presented in this dissertation. Subsequently, we will present a critical reflection on the main results, using the Decision-Making Ecology (Baumann, Fluke, Dalglish, & Kern, 2014; see also Chapter 1) as a model that provides the context for an understanding of our findings. Following this, the strengths and limitations will be presented. Finally, we reflect on the implications of the findings for practice and further research. We expect the main findings of this thesis to be of interest to a broad range of professionals and services directed at supporting families in which children are (possibly) maltreated.

Main research findings

Current state of knowledge

The first study presented (Chapter 2) in this dissertation was a literature review which focused on the identification of methods that may improve individual decision-making regarding child maltreatment cases in child welfare and child protection. We found scarce evidence on decision-making methods, identifying only a small number of studies. The outcomes (i.e. child safety, parenting skills, recurrence of child maltreatment, out-of-home placement) were only investigated in a few studies; more often, the studies focused on the decision-making process itself (e.g. transparency, interrater agreement). Family group decision-making appeared to be a potential tool for family engagement, but showed no effects or even negative effects on child maltreatment outcomes (see also Dijkstra, Creemers, Asscher, Deković, & Stams, 2016). Shared decision-making, which aims to improve the dialogue between professionals and families and to share responsibility for the decision made, may be a promising method to improve client satisfaction, although further

research into the outcomes on child safety is required. Structured decision-making seemed to improve the transparency and systematic nature of the assessment. Finally, we found that the evidence on risk assessment instruments for child maltreatment is inconclusive. Both actuarial and consensus-based risk assessment instruments may be able to predict child maltreatment occurrence or reoccurrence, but they also have flaws. There is an ongoing discussion concerning the value of actuarial versus consensus-based risk assessment instruments to predict child maltreatment occurrence and reoccurrence (see e.g. Van der Put, Assink, & Stams, 2016).

Currently, increasing emphasis in child welfare and child protection is being placed on shared decision-making and team decision-making. Notwithstanding this current development and the possible effectiveness of shared decision-making and family group decision-making, we decided to focus on individual decision-making by professionals because of its likely influence on team decision-making and shared decision-making. When professionals discuss cases with their team or with parents and children, they inevitably influence the discussion because of their own information gathering and selection, and their analyses of the situation (Kerr, MacCoun, & Kramer, 1996). Moreover, many decisions are individually made by professionals because of the limited time to discuss cases in team meetings.

Effects of ORBA, a structured decision-making method

In two practice-oriented, empirical studies, we investigated the effects of ORBA, a structured decision-making method for the Advice and Reporting Centres on Child Abuse and Neglect (ARCCAN; Ten Berge & Vinke, 2006). ORBA is a scientific and practice-based method that explicates and structures the assessment and decision-making process in cases of suspected child maltreatment. ORBA offers guidelines, criteria and checklists to assist in the process of collecting relevant information about cases, judging whether there is a case of substantiated child maltreatment, and deciding whether care or protection is needed. ORBA aims to improve the systematicity and transparency of the decision-making process and thereby to decrease the subjectivity of the judgments and decisions made.

The objective of the first empirical study (**Chapter 3**) was to investigate the transparency and systematicity of the decision-making process in the case records of ARCCANs. We compared case records before ORBA had been implemented to case records after ORBA had been implemented. The analyses in this study concerned: 1) content aspects; 2) process aspects; and 3) rationales for conclusions and decisions in records from 2010. We found that the case records showed clear improvements after ORBA implementation, in terms of both content and process. ARCCAN professionals considered more risk assessment elements (i.e. risk and protective factors, estimation of chance of reoccurrence of child maltreatment), provided more explanations for the problems present in the family, had more elaborate investigation plans and made more explicit decisions. However, they did not present their conclusions about whether or not the child was maltreated and whether or not help was needed any more frequently than before. Nor did they more frequently provide rationales for their conclusions and decisions in the case records. It was concluded that the case records demonstrated a more systematic and transparent decision-making process after ORBA implementation. However, further improvements are necessary, as important elements are still often lacking.

The objective of the second empirical study (**Chapter 4**) was to investigate whether ORBA led to more uniform judgments and decisions. We performed a vignette study and compared trained and untrained ARCCAN professionals. We found that agreement on judgments and decisions of both trained and untrained professionals was low. While we found some differences between trained and untrained professionals, the former did not always agree more on judgments and decisions than the latter. Therefore, we cannot conclude that ORBA leads to more uniform judgments and decisions.

Interrater reliability and predictive validity of LIRIK, a risk assessment instrument

In the next study (**Chapter 5**), we investigated the interrater reliability and predictive validity of LIRIK, a risk assessment instrument (Ten Berge, Eijgenraam, & Bartelink, 2014). LIRIK is an instrument that supports professional judgments on current child safety and future risk of child abuse and neglect. LIRIK is based on the scientific knowledge about risk and protective factors and supports professionals to reach stepwise conclusions about actual safety and future risks by systematically addressing relevant cues in relation to parent-child interaction, child functioning, and risk and protective factors. In a vignette study, we examined whether professionals agreed about safety and risk judgments, with and without the use of LIRIK. We found that agreement about safety and risk judgments was low, both with and without LIRIK. We concluded that reliability was insufficient. In a study in organizations for child welfare and child protection, we examined how well safety and risk judgments with and without LIRIK predicted future abuse and neglect. Professionals made safety and risk judgments in the cases assigned to them in the regular care process (i.e., not specially selected for this study). After six months, we analysed the case records to see whether professionals reported several specified unsafe outcomes (i.e. child maltreatment reports, child protective orders, out-of-home placement, safety or crisis interventions). We found that professionals' safety and risk judgments moderately predicted an unsafe outcome six months later, both with and without LIRIK. As there were no clear differences between professionals who used LIRIK and those who did not, we concluded that LIRIK did not lead to better, that is, more reliable and more valid judgments, than when no instrument was being used.

Rationales of placement decisions

In our final study, we investigated decision-maker rationales behind decisions to place a child in out-of-home care or not. Decision-makers were asked to consider a vignette concerning a case of suspected child maltreatment, and had to decide whether the child should be placed into foster care. They were asked to give their unstructured rationale for their decision. In addition, they filled in a questionnaire about their attitudes towards out-of-home placement. We found that a large group of decision-makers did not indicate reasons related to the maltreatment itself, the parenting situation or the child's development (i.e. the threat of developmental disturbance). Attitudes towards out-of-home placement were positively related to the placement decision: professionals with more positive attitudes towards out-of-home placement were more likely to place a child into care. In addition to their attitudes, several reasons mentioned by participants predicted the placement decision. Those who decided that the child needed to be placed into foster care had different reasoning patterns than those who decided that the child could stay at home. The former emphasized the severity of the child maltreatment, the child's development, the lack of cooperation by the parents and the advantages of placement, while the latter emphasized the

lack of information, the lack of previous interventions, the importance of the biological family and the advantages of other interventions. Work experience did not seem to predict placement decisions. We concluded that decision-maker factors, in particular, attitudes and the reasoning process, strongly influenced the decisions made.

Discussion of main findings

This dissertation revealed that decision-making methods – focused on case factors – have only a limited effect on the decision-making process and the judgments and decisions made. Although the process becomes more transparent and systematic, professionals still often disagree in their judgments and decisions, and the predictive validity of their judgments remains limited. Attitudes and individual reasoning processes appear to substantially influence the decisions made. Although case factors play a central part in the decision-making process, it may primarily be the *perception* of these case factors by professionals that most strongly influences the decisions made.

The finding that decision-making methods have a limited effect is not unique (e.g. Ægisdóttir et al., 2006; D’Andrade et al., 2005; Grove, Zald, Lebow, Snitz, & Nelson, 2000). Previous studies on structured decision-making methods in child welfare and child protection show that these methods support a comprehensive assessment of the situation within families (for an overview, see Léveillé & Chamberland, 2010). Our findings indicate that professionals take a more holistic view and make more complete assessments when they use ORBA. However, in line with previous research, we also found that interrater agreement did not improve (Kang & Poertner, 2006; Regehr, Bogo, Shlonsky, & LeBlanc, 2010). With respect to risk assessment instruments, our results are not exceptional (e.g. Barlow et al., 2012). Instruments that support structured clinical judgments are often criticized for their lack of consistency and validity (D’Andrade et al., 2005). Recently, Schouten (2017) for example found that a child abuse screening instrument used by medical doctors in out-of-hour primary care and emergency departments had low predictive validity. One reason for the lack of positive results in structured clinical decision-making, including both risk assessment instruments and comprehensive structured decision-making methods, may be that the broad definition of child maltreatment leaves a great deal of room for practitioners’ individual considerations. This space is not addressed by the methods we investigated, which only provide general guidelines for assessing signs of child maltreatment present in the family. Although it is often argued that actuarial risk assessment instruments should be used because of their higher predictive validity, these instruments still have serious flaws, resulting in relatively high levels of false positive and false negative outcomes (see Baird & Wagner, 2000; Baumann, Law, Sheets, Reid, & Graham, 2005). Mendoza, Rose, Geiger and Cash (2016) found that a combination of an actuarial instrument and structured clinical judgment may possibly result in more positive outcomes (see also Shlonsky & Wagner, 2005). In conclusion, using instruments such as ORBA and LIRIK is useful, but certainly not enough to substantially improve decision-making on child protection. Additional attention should be paid to perceptions and reasoning of the professionals.

Our final study on rationales for out-of-home placement decisions in a case of alleged child maltreatment showed the significant effect of professionals’ attitudes and reasoning processes, which appear to be intertwined: professionals appeared to reason towards their decision in a manner consistent with their attitudes, which may indicate signs of bias in decision-making. ‘Critical thinking’ (Gambrill, 2005) appeared to be lacking, as indicated by the lack of a sound analysis of the parenting situation and child development in a majority of the rationales, and the

almost complete lack of counterarguments.¹² It is possible that a lack of critical thinking leads to disagreement on judgments and decisions. These findings are in line with previous research (Arad-Davidzon & Benbenishty, 2008; Arruabarrena & De Paúl, 2012; Font & Maguire-Jack, 2015; Horwitz et al., 2011; Jent et al., 2011; Lambert & Ogles, 2004; Minkhorst et al., 2016). Intuitive reasoning processes appear to lie at the basis of the decision-making process (see Munro, 1999; Spierts, Van Pelt, Van Rest, & Verweij, 2017), as indicated by respondents mentioning case factors that were most salient to them and in line with their attitudes. Structured decision-making methods and risk assessment instruments partially seem to be a solution to increase transparency of the decision-making process and to focus attention of professionals on relevant case factors, but they are not enough to decrease intuitive reasoning. Several researchers have argued that critical thinking skills may counteract intuitive thought processes (e.g. see Gambrell, 2005; Toulmin, Riecke, & Janik, 1984), at least afterwards, when professionals think about the reasons why they made certain decisions. Perhaps critical thinking can lead to higher levels of agreement and greater validity of judgments and decisions.

In terms of the Decision-Making Ecology (Baumann et al., 2014), our findings indicate that methods focused on case factors have only a limited effect on the interrater agreement and the predictive validity of the decisions. The findings of our final study seem to indicate that decision-maker factors (i.e. attitudes and reasoning) play a part in the decision-making process. When we look at these findings using the adapted Decision-Making Ecology model as a frame of reference (see Chapter 1, Figure 1), it can be hypothesized that the decision-makers' implicit reasoning (i.e. their perception and interpretation of case factors), in connection with their attitudes, may have more influence on the decisions made than structured decision-making methods and risk assessment instruments that prescribe the case factors that professionals need to take into account, but that do not provide guidelines for weighing these factors. When professionals must weigh the case factors themselves, their judgments and decisions are influenced by personal views and reasoning, leading to interrater disagreement and subjective judgments and decisions.

It is possible or even plausible that professionals are not aware of how their decision-making is influenced by personal attitudes. Our results emphasize the need for professionals to become more aware of the effects of intuitive decision-making and thereby make their reasoning process more explicit. Although intuitive reasoning may remain influential because of the complexity of the decision-making task (Munro, 1999; Pelaccia, Tardif, Tribby, & Charlin, 2011), it may be possible to develop aids that reveal the role of intuitive reasoning and offer ways to systematically validate intuitively made judgments and decisions. While structured decision-making methods, such as the ORBA method, are meant to make intuitive judgments and decisions more explicit and to evaluate these systematically, they appear to be insufficiently able to overcome the influence of decision-maker factors. We will return to possible aids that may reduce the negative effects of intuitive reasoning in our recommendations and implications section.

¹² Gambrell (2005) defines 'critical thinking' as follows: 'Critical thinking is a unique kind of purposeful thinking in which we use standards such as clarity and fairness. It involves the careful examination and evaluation of beliefs and actions in order to arrive at well-reasoned decisions (...) Critical thinking involves clearly describing and carefully evaluating our claims and arguments, no matter how cherished, and considering alternative views when needed to arrive at decisions that do more good than harm'. She argues that critical thinking is closely related to evidence-based practice because of their shared appreciation of clarity, accuracy, deep analysis and open-minded practices.

Our findings also showed how difficult it is to improve individual decision-making, thereby raising the questions of whether it is possible to further optimize decision-making in child welfare and child protection, and, if so, how and to what extent. After decades of research, decision-making still seems flawed (e.g. Ægisdóttir et al., 2006; D'Andrade et al., 2005; Grove, Zald, Lebow, Snitz, & Nelson, 2000), professionals still have difficulties recognizing child maltreatment and instruments still lack reliability and predictive validity. Improvement is needed on the process, specifically the reasoning process (i.e., the inclusion of evidence-based knowledge in the decision-making and explication of intuitive reasoning), and the outcomes (i.e., the reliability and validity of judgments and decisions made). As a consequence, judgments and decisions can be critically reviewed by clients, co-workers and professionals from other organizations.

Regarding the first question – *whether* improvement of decision-making in child welfare and child protection is possible – we assume that optimization is conceivable. This dissertation found some support for this assumption. The current methods we studied focus in particular on the assessment of case factors and do not address decision-maker factors that may influence the decision-making process (see Chapters 3, 4 and 5). Because current methods insufficiently address these decision-maker factors, we assume that further improvement of the decision-making process and outcomes is possible by taking the professionals who decide into greater consideration.

This leads to the second question: *how* can improvements be made? Based on our findings, we assume that the attention needs to be focused not only on methods aiming at articulating case factors but also on methods that influence decision-maker factors as well as the proliferation of case factors. Frequently, the further protocolling and use of methods and instruments are considered the solution to flaws in the recognition of child maltreatment cases (see Munro, 2011). The results of this thesis indicate that, in addition, other solutions have to be found to improve decision-making in child maltreatment cases. Although systematic methods and instruments have a certain value (see Chapter 3; Léveillé & Chamberland, 2010), they need to be complemented by efforts that address decision-maker factors, for example by stimulating professional reflection on personal attitudes and reasoning processes through supervision and team discussion.

With regard to the possible leads being considered above, a final question arises: to what extent can improvements be made? Given the broad definition of child maltreatment and cultural beliefs influencing the decision-making process (Bartman, 2009; Leeb, Paulozzi, Melanson, Simon, & Arias, 2008; Raman & Hodes, 2012; Sedlak, Mettenburg, Schultz, & Cook, 2003), the results of our final study, in particular, indicate that such a broad definition will inevitably lead to differences in decisions made: it leaves professionals with a great amount of room for personal interpretation and weighing of situational aspects. The definition of child maltreatment might never be so specific that personal interpretations can be ruled out. However, the methods worthy of consideration are 'structured team decision-making' (Pijnenburg, 1996) and 'shared decision-making' with parents and children (Ouwens, Van der Burg, Faber, & Van der Weijden, 2012). We hypothesize that these methods may lead to the clarification and sharing of decision thresholds and thereby might result in less subjective decisions (dependent on a single professional) and more intersubjective decisions (consensus among professionals, and between professionals and families).

Several studies, including our final study, have found that education and work experience do not appear to influence decision-making (Garb, 1989; Lambert & Ogles, 2004; Minkhorst, Witteman, Koopmans, Lohman, & Knorth, 2016), although others have found effects of work experience

(Benbenishty et al., 2002; Brunnberg & Pećnik, 2007; Portwood, 1998). The relationship between education, work experience and decision-making seems complex. Work experience may add little or no value when making complex decisions (Devaney, Hayes, & Spratt, 2017; Spengler et al., 2009). A shared professional culture may lead to similarities in decision-making by unexperienced and experienced professionals (Davidson-Arad & Benbenishty, 2016). In addition, other factors may be at work, such as the kind of education received (legal versus social work or mental health education; e.g. Britner & Mosler, 2002) or work-related traumatic experiences (Regehr, LeBlanc, Shlonsky & Bogo, 2010). It is possible that feedback on decisions made may support learning by experience (see Spengler et al., 2009).

Strengths and limitations

We identified a number of strengths and limitations of our studies. One point of discussion raised by professionals in child welfare and child protection is our decision to investigate individual professional decision-making. Because professionals commonly discuss important decisions within their teams and possibly also with parents, the studies included may not be fully generalizable to clinical practice. Why then this focus on individual decision-making? As previously mentioned, the individual decision-maker largely influences group decision-making, be it with colleagues or clients. In team decision-making, individual attitudes towards the situation, individual opinions and analysis will inevitably influence the discussion, which makes it all the more worthwhile to study the individual processes in decision-making. This dissertation shows that these individual processes are flawed, which pleads for the addition of structured team and shared decision-making to the decision-making process. In that view, it would be interesting to study the relationship between individual decisions and team decisions in the same case. Shared decision-making in child maltreatment cases is partly based on professional individual decision-making (see Ouwens et al., 2012), insofar as professionals bring their research- and practice-based knowledge to the discussion, thereby influencing it; before discussing their assessment and opinion with parents and children, they have already made some preliminary decisions in preparation.

A second limitation is the use of vignettes in parts of our research. While vignettes are typically used to study interrater agreement (e.g. Mezzich, Mezzich, & Coffman, 1985), their use is criticized, as they are considered to lack correspondence with the reality of the decision-making process: professionals do not have access to oral or non-verbal information and have only limited written information (Evans et al., 2015). However, one major advantage of working with vignettes is the opportunity to control the information provided to research participants and to systematically vary the type of maltreatment and severity (Eels, Lombart, Kendjelic, Turner, & Lucas, 2005). There is no indication that participants respond differently to the decision-making process when using hypothetical vignettes than in real-life decision-making tasks (see Evans et al., 2015). Moreover, previous research found similar results regarding interrater agreement/disagreement (e.g. Britner & Mossler, 2002; Schuerman, Rossi, & Budde, 1999).

Although our studies were performed before the transition of child welfare and child protection services to the municipalities (Hilverdink, Daamen, & Vink, 2015), we are convinced that our findings can be generalized to the agencies that are currently in charge. Despite changes to the organizations in which we performed our studies, they largely have the same tasks and they still have to make the same judgments and decisions in child maltreatment cases. Over time, research has been quite consistent about the flaws in the decision-making process (e.g. Garb, 1998,

2005; Kahneman, 2011; Spierts, Van Pelt, Van Rest, & Verweij, 2017).

Despite some limitations, our studies have considerable strengths. A substantial strength is the large scope of this dissertation, in which we studied the effects of two decision-making methods and the rationales of decision-makers, and in which we included a considerable number of respondents and case files. In addition, we studied the decision-making process in several organizations that have distinct functions in the field of child welfare and child protection, namely public child health care, ARCCANs, Regional Child Protection Service Agencies and youth care agencies. One advantage of this design is that we collected empirical evidence on the quality of the decision-making process and the decisions made throughout the whole chain of organizations in child welfare and child protection. Our studies indicate that the difficulties with decision-making are not the problem of one single type of organization, but are issues that the entire field of child welfare and child protection struggles with.

Another strength is that a part of the studies involved practice-oriented research, which provides a realistic picture of daily clinical practice. In general, practice-oriented research aims to address practical situations in which changes are needed, and leads to advice on further improvement (Verschuren & Doorewaard, 2015). Our studies realistically showed the effects of the use of the ORBA method and the LIRIK instrument. They also revealed the difficulties in the implementation of methods such as ORBA and LIRIK (Prins, 2011; see also Stals, 2012) and the impact of decision-maker factors on the decision-making process. While a controlled study with clearly defined control and experimental groups might have led to more positive research results, it may have also led to the incorrect conclusion that these methods are effective in clinical practice. Although the research conditions were not ideal (e.g. flawed control and experimental groups, and insufficient attention paid to the implementation process; Prins, 2011), these studies clearly show how difficult it is to improve decision-making processes in clinical practice.

Recommendations and future perspectives

This dissertation also offers recommendations for both research and practice. Below, we will first discuss recommendations for practice and then reflect upon future perspectives for research.

Recommendations for practice

We are aware of how difficult it is to decide in cases of suspected child maltreatment, given the complexity of the issue and the circumstances faced by professionals (Benbenishty, 1992; Gambrill & Shlonsky, 2000; Hardman, 2009; Kaplan, Pelcovitz, & Labruna, 1999; Munro, 1999). This cannot be resolved by any method or instrument alone, although methods and instruments can support clinical judgment by broadening the professional's view and making the reasoning process and conclusions more explicit. Some mistakes will be inevitable because of the limited knowledge of professionals about the family at a given point in time. Due to the (usual) invisibility of child maltreatment and the often vague and non-specific signs, it will always be difficult to recognize cases of child maltreatment.

However, mistakes due to professional failure to revise views can be prevented by optimizing the decision-making process. As we indicated above, the methods studied may be useful to increase systematicity and transparency. Appropriate use of these methods may broaden professionals' analysis of the situation in the family and make their views transparent and open for discussion. However, professionals also have to be circumspect about these methods; they

must be aware of the limitations. If they believe that they are using an objective instrument, they may become overconfident and less critical about their safety and risk judgments (Regehr, Bogo, Shlonsky, & LeBlanc, 2010). Professionals should be aware of the limitations and strengths of decision-making methods and risk assessment instruments and realize that uncertainties are inherent in the use of instruments, even if these have been well validated (Gambrill & Shlonsky, 2000; Hart, Michie, & Cooke, 2007; Regehr et al., 2010).

We see several options to further improve decision-making. Firstly, professionals need to be or become aware of the pitfalls in decision-making (e.g. tunnel vision) and the strategies that may make them less vulnerable to these pitfalls. One way to become less prone to decision pitfalls is 'critical thinking' (Gambrill, 2005; Munro, 1996; Toulmin et al., 1984); this practice is characterized by critical self-reflection and thinking about alternative explanations as well as the pros and cons of the proposed interventions and alternatives. Several strategies can be used to stimulate critical thinking, such as hypothesis testing, taking the opposing point of view (Munro, 1999) and scrutinizing evidence for strengths and weaknesses in a structured and systematic way (Duffy, 2011; Knorth et al., 1997). Through self-reflection, professionals critically investigate what underpins their decisions, for example the attitudes, feelings and assumptions they have in relation to their cases. Critical thinking may ensure people remain receptive to new information. Mistakes may be minimized if professionals are aware that they regularly need to revise their views when they receive new information and their knowledge base alters. Training and ongoing on-the-job supervision may support the development of critical thinking skills (see Duffy, 2011; Pelaccia et al., 2011).

Secondly, team decision-making should be encouraged under certain conditions, such as (a) a balanced discussion of cases in which both the pros and cons of several interventions are discussed and (b) the presence of a competent chair who leads and structures the discussion. Team decision-making is quite common in child welfare and child protection (Nouwen, Decuyper, & Put, 2012). However, it may be necessary to discuss cases in this context in a more structured way than is currently done to benefit from the advantages and avoid the disadvantages of group decision-making. Although team decision-making can be prone to the same pitfalls as individual decision-making (e.g. see Pijnenburg, 1996; Van den Bossche, Gijsselaers, Segers, & Kirschner, 2006; Van Diest, 1994; West, 2004), it may strengthen decision-making when co-workers purposely interrogate each other critically about their reasons, motivations and attitudes; possibly address alternative explanations; and explore the limitations of the preferred solution and the advantages of alternative interventions (Nouwen et al., 2012). In team decision-making, personal factors, such as attitudes and previous experience, should be discussed and balanced by the input of co-workers. Nonetheless, team discussions can easily become dominated by one or two professionals with an explicit opinion, or suffer from a phenomenon that is known as 'groupthink' (i.e., the tendency of group members to conform and reach consensus without critical consideration of alternative viewpoints; Knorth, 1994, p. 48). Therefore, to prevent this kind of pitfalls, the chair must play an important role in structuring the discussion and stimulating cooperation and critical interaction within the team (Pijnenburg, 1996). A very short and well-led role play within teams, with each member representing alternative views (including the child's and the parents'), may result in a more balanced discussion. A high caseload during team discussions, which is common in child welfare and child protection, may place this type of decision-making under pressure. However, given the importance and the impact of these decisions, it may be wise to put the integrity of the decision-making at the first place, and the caseload at the second.

Thirdly, shared decision-making with parents and children may have positive effects on the decisions made, although this is not always easy to achieve in families where children are being maltreated. Shared decision-making may address intrinsic motivation for change in families who need to make long-term changes. This may be better achieved if the changes desired by professionals are related to the families' preferences and values (Bartelink, 2013; see also Westermann, 2010). Because families may not be aware of the problem signalled by others, which led to the involvement of child protective services to begin with, and as there may be an imbalance in power between professionals and families, shared decision-making may be difficult to realize in child maltreatment cases. However, methods such as Signs of Safety (Turnell & Edwards, 1999) and Family Group Conferences (Merkel-Holguin, 2003), which are reasonably popular among professionals, demonstrate that shared decision-making in cases of suspected child maltreatment is possible. Although they may not result in more positive outcomes concerning child safety than other interventions, these methods increase parent and child participation (Dijkstra et al., 2016; Vink, De Wolff, Van Dommelen, Bartelink, & Van der Veen, 2017). Further research is needed to investigate the effective elements of shared decision-making to improve child safety.

Finally, feedback on the effects of judgments and decisions may improve the validity of the decision-making process (see Spengler et al., 2009). Professionals may not learn from their experience because they lack feedback about the validity of their decisions (Dawes, Faust, & Meehl, 1989; Finnila, Santtila, Mattila, & Niemi, 2012). Outcome monitoring may be a useful tool to increase feedback on judgments and decisions made (Van Yperen, 2013). Outcome monitoring supports reflection on the results, and professionals may use empirical knowledge and practical experience to improve the outcomes (Delicat, 2011; Hutschemaekers, 2010). Moreover, outcome monitoring raises professionals' awareness that their interventions do not always result in the desired outcomes and provides them with the opportunity to adapt their intervention strategy (Lambert & Shimokawa, 2011). Outcome monitoring provides new information to professionals that may lead to adaptations in the decisions made.

Recommendations for future research

The current state of scientific knowledge on decision-making methods is limited. Although we have made some recommendations to professionals in clinical practice to use critical thinking skills, to apply structured team decision-making and shared decision-making, and to monitor the outcomes of interventions which occurred, the effects of these methods are not well studied. Further research must address the effects of decision-making methods on child safety. Ultimately, children and families should benefit from the services they receive. The decision-making process is the vehicle to reach desired outcomes: through the decision-making process, professionals determine which services are needed. Consequently, the decision-making process is crucial for ensuring positive effects, in addition to accurate execution of the interventions that families undergo. The evaluation of outcomes for children and families will improve our knowledge of the accuracy of the decisions made.

The study of decision-making methods is often disregarded because of the complexity of the topic (Hunsley & Mash, 2007; Klein, Dougherty & Olino, 2005; Pelham, Fabiano & Massetti, 2005). We assume that combinations of the methods recommended above will enhance the quality of decisions made. How these methods interact with each other and together improve decision-making needs to be studied. Repeated case studies, in which methods are gradually implemented,

may be a useful way of investigating the added value of each method (Delsing & Van Yperen, in press).

In particular, shared decision-making requires further research because of its popularity among professionals. Shared decision-making may increase client satisfaction and treatment adherence, and, as a result, may improve treatment outcomes and decrease drop-out, but research on this topic in child welfare and child protection is still very limited (see Vis, Strandbu, Holtan, & Thomas, 2011). Preliminary results of a study on the Signs of Safety method indicate that parents who received intervention from child protection workers using Signs of Safety were more positive about the intervention than parents who experienced the usual child protection services. However, child safety did not increase in either group, according to both the professionals and the parents (Vink et al., 2017). More research needs to confirm whether shared decision-making, which strengthens the alliance between professionals and families, is a moderator for enduring child safety in cases of maltreatment.

Conclusion

Professionals in child welfare and child protection face a challenging task. They must deal with many uncertainties in the decision-making process, such as uncertainties about the precise nature of the situation in the family (due to unclear and sometimes contradictory information) and lack of information about the consequences of their decisions. They also have to balance the rights of children and parents, as well as the competing rights of children, such as the right to be protected from child maltreatment and the right to live with their own parents. The challenge is, on the one hand, to provide made-to-measure services to children and their families and, on the other hand, to treat every family equally. In this area of tension, professionals have to rely on only general guidelines and methods, which might structure the decision-making process but still leave room for their own interpretations. Although professionals appear to incorporate a broad range of case factors into their decision-making process, in which they are supported by structured decision-making methods and risk assessment instruments, it appears that their reasoning process leads to differing judgments and decisions among professionals. The challenge revealed in this dissertation is not so much *what* case factors professionals consider but *how* they consider them, including their reasoning related to these case factors. Further research should focus attention on the decision-maker factors influencing the reasoning process and their effect on decisions made.

As long as differences among professionals cannot be ruled out, the best available alternative is to take advantage of differences among professionals. Individual decision-makers may benefit from team and shared decision-making, in which the debate among professionals and between professionals and clients is organized. This may prevent tunnel vision and allow decision-makers to remain open to revisions of their views. In this way, individual, team and shared decision-making may possibly strengthen each other.