Understanding care use of children with complex problems: a family and care perspective
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**Title:** Understanding care use of children with complex problems: a family and care perspective

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CHAPTER 6

GENERAL DISCUSSION
Chapter 6

The aim of this dissertation is to enhance the understanding of care use by children known to have or be at risk of complex problems (CP). We divided the subject into: care use, its intensity, and barriers to care. We also focused on multiproblem families, where we found the subgroup of children with the highest level of CP. Finally, we consulted professionals to understand the challenges of coordinating care for these children and their families. In this chapter we present and discuss the main results of our research for this PhD thesis. We also present implications for professionals and policymakers, as well as implications for future research.

Main findings
The main results of the four studies conducted are presented below, per research question:

Research question 1: Which predisposing, enabling, and need factors impact the use and intensity of overall and psychosocial care use by children with CP?
We used two waves of our cohort of children with CP. We found changes in use and intensity to be associated with changes in predisposing and need factors, but not with enabling factors. Change in overall care use was associated with a decrease in the burden of adverse life events (ALE) and with increasing parenting concerns. Change in psychosocial care use was associated with decrease in ALE, increase in parenting concerns, and older age of children (school-aged children vs. pre-school). Regarding intensity of use, we found that overall care use decreased when ALE decreased and when psychosocial problems became less severe. Intensity of psychosocial care also decreased when the severity of psychosocial problems declined.

Research question 2A: What do parents expect concerning practical barriers to psychosocial care use by their children with CP?
For this study, we used cross-sectional data of the cohort of children with CP. We found that a majority of parents expected practical barriers, i.e. logistic obstacles like transportation problems or inconvenient services (73%). Furthermore, parents of children using psychosocial care expected more barriers than those (at the time) using no care at all.

Research question 2B: Which predisposing, enabling, and need factors are associated with expected practical barriers for children with CP using psychosocial care or no care at all?
We found that expected practical barriers for children using psychosocial care were associated with predisposing and enabling factors, but not with need factors. More barriers were associated with children of school-age (vs. pre-school), of migrant background, having older parents, and having increased number of adverse life events and less social support from family and friends.
Research question 3: Which predisposing, enabling, and need factors are associated with overall and psychosocial care use by children of multiproblem families and their parents?
We included the baseline scores of multiproblem families of our cohort of children with CP. We found that care use was related to several predisposing, enabling, and need factors. A child's overall care use was associated with having greater social support from family and friends, and with having a greater number of psychosocial problems. Psychosocial care use was more likely among older children, and among those having greater social support by family and friends, more psychosocial problems, and more parenting concerns. Overall and psychosocial care use by parents was associated with experiencing a greater number of life events.

Research question 4: Which background characteristics and determinants of implementation hinder or facilitate adherence to the core coordination method Wraparound Care by professionals working in child and family services?
We conducted a cross-sectional survey in a sample of professionals working with Wraparound Care (WAC). First, we found adherence to the WAC core component activating family members and the social network to be relatively weak in comparison with the other two core components: integrating the network of care providers and assessing, planning and evaluating the care process. We also found self-efficacy of the care providers to be significantly associated with adherence to the three WAC core components. The way WAC was organized (as a broad network or in specially trained teams) was significantly associated with two core components: activating family members, and integrating the network of care providers.

Discussion of the main findings
We first discuss factors impacting psychosocial care use of children with CP and their parents’ expectations regarding barriers to psychosocial care. Then we elaborate on factors influencing overall care use for children with CP in comparison to their psychosocial care use. We also expound on factors impacting care use by children and parents from multiproblem families to enhance understanding of care use by this subgroup with the highest level of CP. Finally, we discuss the factors impacting the degree to which professional youth care workers use the Wraparound Care method when helping children with CP.

Table 1 presents the main findings of our research on factors impacting care use by children with CP. We categorize these factors using Andersen and Newman’s behavioral-health model of access to care [1]. Per category this includes the following variables: 1) predisposing factors: a child’s age and adverse life events, 2) enabling factors: social support of family and friends, and 3) need factors: a child’s psychosocial problems and parenting concerns.
Chapter 6

Table 1 Overall results of cohort study on care use, its intensity and barriers to care, divided into severity of CP and type of care

<table>
<thead>
<tr>
<th>Known with or at risk of complex problems</th>
<th>Multiproblem families</th>
</tr>
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<tbody>
<tr>
<td>Child</td>
<td>Delta Care use</td>
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<tr>
<td>Psychosocial care</td>
<td>Overall care</td>
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<tr>
<td>Psychosocial care**</td>
<td>Overall care</td>
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</tbody>
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**Predisposing factors**
- Child age (pre- vs. school-age) + n.s. n.s. n.s. + n.s. n.s. n.s.
- Adverse life events - - n.s. - + n.s. n.s. + +

**Enabling factors**
- Social support by family and friends n.s. n.s. n.s. n.s. - + + n.s. n.s.

**Need factors**
- Child’s psychosocial problems (yes vs. no) n.s. n.s. - - n.s. + + n.s. n.s.
- Parenting concerns + - n.s. n.s. n.s. + n.s. n.s.

*Parental psychosocial care use - significant positive association with parental mental health problems
**Barriers to care – significant positive association with ethnicity (non-western vs. western and native) and parental age (> 36 vs. younger)
+ significant positive association; – significant negative association; n.s. no statistically significant association

Psychosocial care use by children with complex problems
We first address the predisposing, enabling, and need factors influencing psychosocial care use by children known to have or be at risk of complex problems (CP). Psychosocial care is a subset of overall care, entailing care services delivered by mental healthcare, social care, school care or family services in the past six months.

**Predisposing factors**
We found that predisposing factors: child’s age, and experience of adverse life events (ALE) impact care use, its intensity, and barriers to psychosocial care.

**Child’s age**
Of children with CP, those of school age used psychosocial care more often than pre-school children, and their parents expected more practical barriers to access care. These findings are in line with previous studies [2-5]. Detecting CP and its risk factors in young children is difficult, because CP involves an interaction of needs, lack of skills, and unfavorable economic circumstances rather than
reflecting one specific problem [6]. The younger the child, the harder it is to establish how or when these interwoven vulnerabilities will develop into complex problems. These uncertainties in the development of CP make it difficult for a professional to detect early warning signs, and then discuss them on time with parents to motivate them for treatment beyond the singular, often health-related, problem.

**Adverse life events**

We found a decrease in burden of adverse life events (ALE) to be associated with more care use, lower intensity of use and decrease in expectations of practical barriers. First, the negative association of ALE with care use and its intensity was not expected [7,8]. Children with CP are more likely to use care than people in the general population because they typically experience more traumatic and stressful life events [9]. It may be that the positive effect of trauma therapy on other emotional conditions motivates children with CP to continue treatment even when the burden of ALE decreases [10,11]. Second, the positive association between expected practical barriers and ALE is in line with earlier research [2]. It is possible that ALE upsets the fragile balance which the family needs to overcome practical barriers to care and eventual use of care when needed. Our results place ALE at the core of the whole care process of children with CP, i.e. not only care use itself, but also its intensity and the barriers to its use.

**Social support by family and friends as enabling factor**

We found that social support by family and friends impacted expectations of barriers to care for children known to have or be at risk of CP, but did not impact psychosocial care use and its intensity.

**Social support**

Although we found a high level of social support to be associated with fewer expected practical barriers to psychosocial care, we were surprised to find that it had no relationship with changes in care use and its intensity [12]. There are two possible explanations for this. First, research, including our implementation study on WAC, showed that professionals struggle to make sustainable changes in the quality of social support of vulnerable families [13]. Secondly, the single year of follow-up in our study was possibly too limited to detect meaningful changes, especially for the families not receiving treatment. The negative association between social support and barriers was as expected, indicating that families with children with CP have adequate social networks to overcome daily difficulties, like finding someone to babysit when taking a child to treatment. Although social support is a known determinant impacting a child’s care use in general, more research is needed regarding the use of social support to improve treatment for children with CP.
Chapter 6

Psychosocial problems and parenting concerns as need factors

We found that the need factors: child’s psychosocial problems and parenting concerns, were associated with psychosocial care use and its intensity, and not with barriers to care.

Psychosocial problems

Our results show an association between a decrease in a child’s psychosocial problems and lower intensity of care use by children with CP. These findings are in line with earlier research [14,15]. However, assessing psychosocial problems for children with CP is a major challenge. Research indicates that children with CP are not automatically labelled as such when using standard screening surveys, probably because screening surveys do not have cut off scores for this target group, or are not applicable for detecting such problems [16]. Assessment of psychosocial problems alone is not enough to distinguish children with CP from children with a singular psychosocial problem. Children with CP will also have other need factors in at least two of the following domains: 1. parental factors, 2. parenting concerns, 3. family functioning, 4. contextual factors, 5. social network, and 6. issues with psychosocial care services [16]. Risk factors for these domains have not yet been identified. This study shows that psychosocial problems are an important factor related to care use by children with CP, but more research is needed into the risk factors in other life domains of these children.

Parenting concerns

An increase in parenting concerns was associated with changes in psychosocial care for children with CP. This confirms findings in earlier studies [17,18]. As parents with severe parenting concerns are more likely to seek help for their child, parenting concerns are an important indicator for referral to care [19]. Unfortunately, agreement between parents and professionals about severe parenting concerns is lower for parents with children with CP, possibly because these parents are less likely to express their concerns [20]. Better recognition of parenting concerns by professionals may thus enhance early detection and timely help for these children.

Barriers to care

In line with other studies, we found that most parents expect practical barriers to care, and continue to do so even when already in treatment, and especially when receiving psychosocial care [21,22]. In the paragraphs above we have already discussed the impact of a child’s age, ALE, and social support on barriers, and add here that parents of non-western migrant background and of older age expected more practical barriers. Our findings indicate that parents of a child with CP find it challenging to navigate the system of psychosocial care services. To improve access to these
services, anticipated practical barriers need to be addressed even when a child is already using care. This is especially important when children are of school-age and the family has experienced ALE, has a limited network, or belongs to an ethnic minority.

**Overall care use of children with CP**
One of the aims of this dissertation was to examine the differences between the predisposing, enabling, and need factors influencing overall and psychosocial care use of children with CP. Overall care use referred to any use of care and service delivered in the psychosocial or medical domain in the previous six months by the general practitioner, paramedical services (e.g., physiotherapist), medical specialist, mental healthcare services, social care services, school care services or family services. A child’s age, ALE, and parenting concerns differently impacted overall care use compared to psychosocial care.

A child’s age did not impact overall care use but did impact psychosocial care (see above). This is a favorable result for the accessibility of overall care. We also found that ALE impacted intensity of overall care but not psychosocial care. Other studies showed that ALE impacts intensity of care use over time [23]. Probably the positive effect of trauma based treatments in psychosocial care use, discussed above, may not be found nor expected for use of (para)medical care. This study shows that a child’s age and ALE differently impact overall and psychosocial care use by children with CP.

Finally, we found that with an increase of parenting concerns, psychosocial care use became more and overall care use less likely. This finding was in line with our expectations. Professionals in psychosocial care services should be aware that they can miss underlying general health problems because they are trained to focus primarily on psychosocial factors. A child with CP typically has a wide variety of problems, often related to both psychosocial and general health conditions. This study also shows that parents expressing their parenting concerns use more psychosocial care than overall care possible leading to missing underlying health problems.

**Care use by multiproblem families**
Another aim of this dissertation was to examine whether use of care by multiproblem families is influenced by different factors than use of care by the total group of children with CP, and to examine which factors impact parental care use. We found that factors impacting care use by a child of a multiproblem family generally resemble those of the total group of children with CP, but differ with regard to social support by family and friends, the child’s psychosocial problems, and parenting concerns.
Unexpectedly, more social support was associated with a high level of care use by multiproblem families, but social support did not impact care use by children with CP. Earlier studies found a reverse relationship in the general population, i.e. more social support associated with less care use [24,25]. Researchers have already argued that although the network of multiproblem families is wide and suitable for overcoming practical day-to-day challenges, the quality of support offered is typically low, which prevents these families from making long-lasting improvements in their lives [26]. Often the network of multiproblem families is centred around family members [24]. Loved ones often face the same vulnerabilities as the problem family, making it difficult to provide adequate support; often their parents live in the same bad neighborhood, or siblings bear the same vulnerabilities of a deprived childhood. As for the professionals, research shows that they are reluctant to involve the social network of multiproblem families, for reasons still unknown [25]. Our studies show that although social support is a key factor distinguishing multiproblem families from other families with a child with CP, the network is unequipped to make long-lasting changes to improve the quality of life.

We unexpectedly found that although a child’s psychosocial problems impact use of care by multiproblem families, they did not impact changes in care use for the broader category of children with CP. In spite of overwhelming evidence that psychosocial problems are drivers of psychosocial care use [3-5], we consider our findings explainable in that the time span of our study was only a year. Our community based sample of children with CP, whether with or without treatment, showed only limited changes in their level of psychosocial problems. Research over a longer time span is needed to assess the impact of psychosocial problems on changes in care use by children with CP and of multiproblem families.

We found that parenting concerns did not impact overall care use by multiproblem families, but were relevant for care use by children with CP. Multiproblem families are typically easy for professionals to recognize [27], possibly minimizing the added value of parenting concerns for seeking treatment. Our study shows that parenting concerns play no role in factors related to care use by multiproblem families.

Regarding care use by parents in a multiproblem family, we found it to be associated with ALE as well as their own mental health problems. These findings correspond with earlier studies [28, 29]. Our study showed that both parental mental health problems and childrens’ psychosocial problems are at the core of the help-seeking behaviour, thus underlining the importance of screening for these problems in both parents and children of a potential multiproblem family. The finding that ALE impacted parental care use suggests that a parent’s lack of ability to cope with the struggles of the family is one of the factors to look for in a parent when screening for multiproblem
family. These results emphasize the need for screening for mental health problems and ALE of the parent of a multiproblem family.

Adherence to Wraparound Care (WAC)
We also studied challenges faced by professionals when using the care coordination method Wraparound Care (WAC), designed to help children with CP. WAC is based on three core components: 1. activating family members and the social network, 2. integrating the care provider network, and 3. assessing, planning, and evaluating the care process [30, 31]. We found the professional’s self-efficacy and the way WAC is organized to be associated with the level of adherence to WAC.

Self-efficacy
In line with earlier research, we found greater self-efficacy of the professional to be associated with higher adherence to all three core components of WAC [32]. An explanation may be the elaborate set of capabilities incorporated in WAC, such as the ability to activate the family and their social network. WAC is not a typical treatment with prescribed protocols like those which most professionals learned at school and are accustomed to work with; it is a value driven process for care planning and service delivery. Moreover, although the manual of WAC prescribes the timing for application of core components during treatment, the specific actions or treatment methods to address these components are left to the professional’s judgment. This lack of guidance can lessen a professional’s sense of self-efficacy. Furthermore, WAC is still a one-size-fits-all method for children with CP although this group is known for its wide variety of problems. Little research has been done into effective treatment options for subgroups. Our studies into care use by children with CP, for example, show that with regard to the activating of social support, treatment options should be tailored to the capabilities and environment of the multiproblem families themselves. Our study thus suggests that a professional’s self-efficacy is a key factor for adherence to WAC, possibly because of a lack of guidance on treatment options for different subgroups of children with CP.

Organization of WAC
We found the way WAC was organized to be related to the level of adherence to the core components activating the family and their social support and integrating the professional network. However, we found that a top-down network based approach led to greater adherence than a team based bottom-up approach. This was unexpected because top-down network based approaches typically fail to address local needs and concerns which are especially important when integrating the professional network, and thereby hinder the implementation of the innovation [33, 34]. This raises the question: what are the best ways to organize implementation of WAC? Unfortunately, in
the field of psychosocial care, systematic implementation of innovations like WAC is scarce, and studies on the subject are lacking [35]. In their comprehensive review, Colldrin and colleagues (2017) advise addressing three levels of needs and concerns to facilitate implementation of WAC: 1. a system level, to address needs concerning interagency collaboration, accountability structures, and flexible funding; 2. the team level [36, 37], to address concerns such as including the attendance of the family of the child at team meetings [38, 39]; and 3. the level of the care coordinator, to address the training and skills of the coordinator [40]. Our study indicates a need for more research on how to address local needs and concerns, to provide insight into more effective ways to organize implementation of WAC.

Methodological considerations
In this section we describe the main strengths and limitations of our study regarding the quality of the sample, the quality of the information obtained, and causality.

Quality of the sample
A major strength of our cohort was that it was a community-based sample of children known with or at risk of developing CP; this included children using different intensities of care, or no care at all. In most other research, samples have been limited to children with CP who are using a specific treatment [41, 42]. As our studies cover a broader range of children, both with and without care, we can generalize conclusions to the general population in an urban setting. To our knowledge, studies using similar community-based samples are rare, and fully lacking in the Dutch context. In our implementation study we also addressed a broad range of professionals whose experience with WAC varied from non-existent to substantial, and who were involved with youth organizations varying from well-child clinics to mental health services. This facilitated inferences about determinants of successful implementation of WAC among a full range of youth care professionals.

A potential limitation of our cohort study is our use of care use as an inclusion criterion. We chose to oversample care use by our community sample to gain more insight into the development of CP short time span. Having a history of care use is part of what defines children with CP, and is thus one of our inclusion criteria; this may increase the risk of selection bias. However, in our study population, 97% of respondents met other inclusion criteria in addition to care use. Furthermore, our sample suits the aim of our study: to examine associations rather than prevalence.

Another limitation of our study is that families in a lower socio-economic position seemed somewhat underrepresented at T1, and were more likely to drop out at T2. Having a disadvantageous economic position is one of the main problems enhancing vulnerabilities of children with CP. We allowed for diversity by recruiting respondents from an urban area with
severely deprived neighborhoods, and offering participants a telephone interview instead of an online enquiry. Nevertheless, despite our efforts to enhance response, underrepresentation of families from a lower socio-economic position may have had led to some underestimation of the strength of associations.

Quality of the data
Strong points in the quality of our cohort data include the extensive set of risk factors, the broad scope of both health- and psychosocial care use, and the use of two informants from each family, i.e. parents and child. This broad data set fits the wide variety of problems encountered by children with CP, and their parents.

A limitation was our use of self-reports to measure outcomes and intensity of care use in the past six months. Although we used the valid and reliable questionnaire Tic-P adapted to the setting of youth care, self-report [43, 44] may have been subject to recall bias. Recall bias may also have affected the measuring of risk factors such as the burden of ALE and the impact of the child’s chronic conditions. This may have added measurement error and thus the impacts on reported associations, probably without clear under- or overestimation.

To enhance the validity of the questionnaire used in the implementation study, we followed a thorough process of questionnaire development, starting from a theory, and ensuring the face validity of questions used by conducting interviews with implementation agents as informants [33]. A limitation of the self-report adherence measures is that they may have led to an overestimation of adherence. The Wraparound team observation measure, proven to be a good alternative, was not yet available when we started our study [45].

Causality
Most studies included in this thesis had a cross-sectional design, limiting the potential to deduct causal inferences. However, the study on the intensity of care used the two waves of the cohort study, making it possible to correct the difference scores of outcome measures for difference scores of determinants, which in essence is a cross-sectional approach to analysis of longitudinal data. This analysis procedure gives insight into the impact of changes in factors and care use over time. Furthermore, with our extended set of predisposing and enabling factors we included several confounding factors proven relevant for care use, based on earlier studies [23, 46-48]. Nevertheless, the explained variances of our models were moderate, suggesting that we may have overlooked other factors impacting care use.

Implications
Our findings have several implications for care professionals and policy makers. These implications involve the identification and treatment of children with CP, and multiproblem families, as well as the implementation of WAC. Finally, we present our recommendations for further research to better understand care use of children with CP and expedite the implementation of WAC.

**Implications for practice and policy**

**Implications for the identification of children with complex problems, and multiproblem families**

Our findings have several implications for the identification of children with CP. First, we found that early detection of these children is difficult because of uncertainties regarding how CP develop; we therefore advise establishing a broad risk profile to identify them. Our studies indicate several risk factors: child’s age, adverse life events (ALE), child’s psychosocial problems, and parenting concerns. This risk profile should also include risk factors from other life domains [49]. When a child is identified as being at risk, follow-up assessment is needed to determine whether he or she indeed has CP. In the Netherlands such assessments could be performed by one of the three gatekeepers to psychosocial and health care: the general practitioner, local social teams, or preventive child healthcare. The latter in particular provides an excellent opportunity to detect CP at an early stage. Preventive child healthcare already has a high attendance rate in the general population, and conducts standard screening of both medical and psychosocial problems at several moments in a child’s early life [50]. The development and implementation of a risk profile for children with CP could further augment timely identification.

We found that better recognition of parenting concerns may also improve identification of children with CP. We advise using tools for and training in shared decision-making to improve recognition of these parenting concerns. These tools and training can be included when training professionals in the use of WAC [51, 52]. Furthermore, we found that parents who express their parenting concerns use more psychosocial care than overall care, suggesting that they may miss their children’s underlying health problems. We therefore advise psychosocial care professionals to look out for possible health problems when a child is diagnosed with CP. Both the general practitioner (the doctor who best knows the family), and the doctor or nurse in preventive health care (easily accessible because they are typically members of the local social team), can be consulted on this topic. This additional information on possible health issues and how they interact with psychosocial problems will ensure that the treatment plan covers all the needs of the child.

Our findings further point to two specific implications for identification of the subgroup multiproblem families. First, we found that children from these families have several risk factors that distinguish them from the group of children with CP as a whole; these risk factors, social support and
parenting concerns, should be incorporated in the proposed follow-up assessment of children with CP. Second, our results show that early identification of parents’ mental health problems and ALE helps with detecting multiproblem families. In-depth assessment of ALE is important, not only of recent but also past ALE during the childhood of the parent, because this can continue to affect his parenting [53-55]. We also advise incorporating these parental factors in the follow-up assessment. Our results call for extra attention to social support, parenting concerns, and parental risk factors in the follow-up assessment of children with CP, to identify multiproblem families.

Treatment of children with complex problems and multiproblem families
Our findings also have implications for the treatment of these children. First, we found that ALE play a significant role in the entire care process: not only care itself, but also its intensity and the barriers to its use. We advise structural assessment of ALE, and the use of evidence-based treatments where needed. Assessment should also entail an in-depth interview, going back to the younger years of the child. This could help to limit the risk of new ALE, thus breaking the intergenerational cycle of family events like violence, mental illness, and substance use [56]. During the termination phase of treatment, professionals should also offer tailored psycho-education regarding the re-occurrence and impact of ALE on the family, as these children typically face a greater risk of ALE [57]. Instruction to simplify reconnection with the care coordinator in case of an ALE should be included in this psycho-education. Furthermore, to lower barriers to reconnection, the care coordinator should maintain contact with the family, possibly at known milestones in the life of the child, like starting elementary or secondary school. Easy reconnection with the care coordinator can prevent children from relapsing after an ALE, and thus keep their problems from developing into multiple ones.

Second, we found that to improve access to psychosocial care, expected practical barriers need to be addressed, even when families are already using care. This applies especially when children are of school age, and/or when the family is experiencing ALE, has a limited network, and belongs to an ethnic minority. These findings are of interest to the three gatekeepers of the Dutch psychosocial care system: preventive child healthcare, local social teams, and the general practitioner, as well as to the central care coordinator of methods like WAC. Gatekeepers should especially address practical barriers to care of parents who have one of these risk factors. Moreover, the care coordinator should realize that even if families have once found their way to psychosocial care services, this does not mean they will find it again. We advise that care coordinators continuously address practical barriers and how to overcome them, for example by using the help of the social network or volunteers. Addressing these practical challenges is important not only to facilitate access to care, but also to ensure continued treatment.
Chapter 6

We have one final recommendation regarding the treatment of multiproblem families. We unexpectedly found that support by a family’s network of family and friends does not impact the high levels of care consumption. This calls for more research on the best way to activate such support [58]. Earlier studies have already indicated that the best intervention to activate social support requires a long-term approach, supervised by a care coordinator and involving a friend, family member, or volunteer who is able to model healthy support without expecting reciprocity at the beginning of the process[59]. Furthermore, the care coordinator should actively link formal and informal care and focus on the potential capabilities of families themselves [58-60].

Implications for the implementation of Wraparound Care
The findings in this dissertation also have implications for improving implementation of the care coordination method WAC. We found that a professional’s perceived low self-efficacy is a key factor in non-adherence to WAC, possibly because of absent or inadequate training in care planning techniques, and insufficient guidance on treatment options for different subgroups of children with CP. In line with other studies of WAC, we advise developing a short list of effective interventions for different subgroups [61-63]. A Dutch inventory of effective interventions tailored for the subgroup multiproblem families has recently been made available [64]. When effective treatment options are not available, the use of a recently developed taxonomy can help professionals to reflect on their actions to improve the quality of care, for example by arranging supervision [58]. Finally, the development of a training module on care planning, based on several modelling techniques, can help to improve the level of self-efficacy of the professional [65]. Examples of modelling techniques include learning on the job, or a vlog series where the professional discusses and overcomes his/her challenges when using WAC. Providing training modules based on modelling techniques, and adding concrete treatment options to WAC will improve the self-efficacy of professionals.

*Implications for research*
*Children with complex problems and multiproblem families*

Our results indicate a need for more research into the risk factors for CP. We believe that Andersen and Newman’s behavioral-health model of access to care provides an excellent conceptual framework to study these factors [66]. In children with CP we found changes in predisposing, enabling, and need factors -- for example in social support and psychosocial problems -- to be infrequent and difficult to achieve, regardless of whether or not a child is undergoing treatment. We therefore advise using an extended time span to study these children to better understand how CP develop.
Based on the findings in this dissertation, children from multiproblem families are a subgroup of children with CP which should be identified and treated differently than the total group of children with CP. Our findings also suggest looking closer at possible other subgroups of children with CP, for example by using a prediction tree analysis, and developing tailored pathways to care for these groups.

We have found that factors impacting care use and factors impacting its intensity are not the same. This implies a need to study both aspects to understand the care seeking process of children with CP. As these children typically have higher care consumption than one would expect, based on their chronic condition alone, the need for more research the intensity of care use is clear.

We have also found that families expected many practical barriers, even when already in treatment. Children with CP need the support of different professionals to meet their needs in various areas of life. It would be interesting to learn how parents and children themselves feel they might overcome this challenge, and how the care coordinator of WAC could be of help.

Finally, in our studies we focused on a quantitative approach to give insight in care use of a community based sample of children with CP. This approach yielded interesting questions for further investigation of the mechanisms behind our findings, for example the intergenerational aspect of care use of multiproblem families, minority parents’ expectations about barriers to care, and the interaction between factors of Andersen and Newman’s framework of behavioral-health model of access to care. We advise a more in depth qualitative approach to address these additional questions.

**Implementation of Wraparound Care**

As WAC is the designated coordination method of care for children with CP in the Netherlands, we advise continued attention to its implementation, evaluation, and further development. This calls for an elaborate research agenda, probably best coordinated by a national agency aimed at expediting use of and adherence to WAC in the Netherlands.

**Conclusion**

The results of our studies augment the understanding of care use by children with CP, including the factors associated with their care use, the intensity of care use, and barriers to its use. These factors: child’s age, ALE, child’s psychosocial problems, and parenting concerns, provide a good starting point to develop a risk profile to detect children with CP. We argue that all gatekeepers to care for children: the local social team, the general practitioner, and preventive health services should be aware of these factors when identifying and helping children with CP. We also found that use of psychosocial care and overall care is affected differently by the factors child’s age, ALE, and
Chapter 6

parenting concerns. These findings imply that gatekeepers to care should be aware that children with CP often have both psychosocial and health issues, and should assess how these interact. Our findings also show that multiproblem families are a specific subgroup that should be detected and treated somewhat differently from the total group of children with CP, and social support is one of the main factors that requires such a tailored approach. Finally, our findings indicate that a professional’s self-efficacy and the way WAC is organized impact adherence to WAC. These findings call for further development of WAC and research into effective implementation strategies, probably requiring a structured community-oriented approach, organized in regional healthcare centers.
References


Chapter 6