Towards a strong parent-team alliance for improved treatment outcomes in child residential psychiatry

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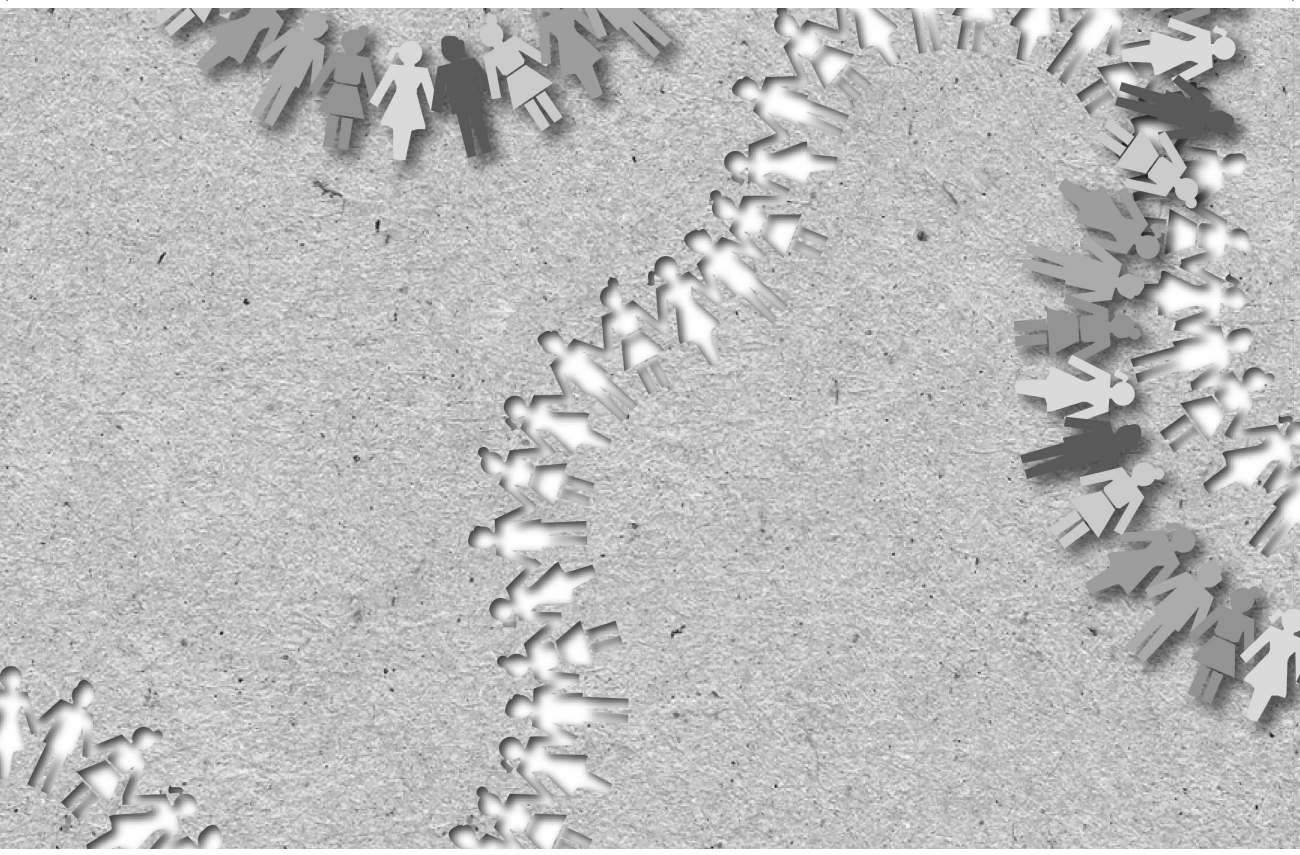

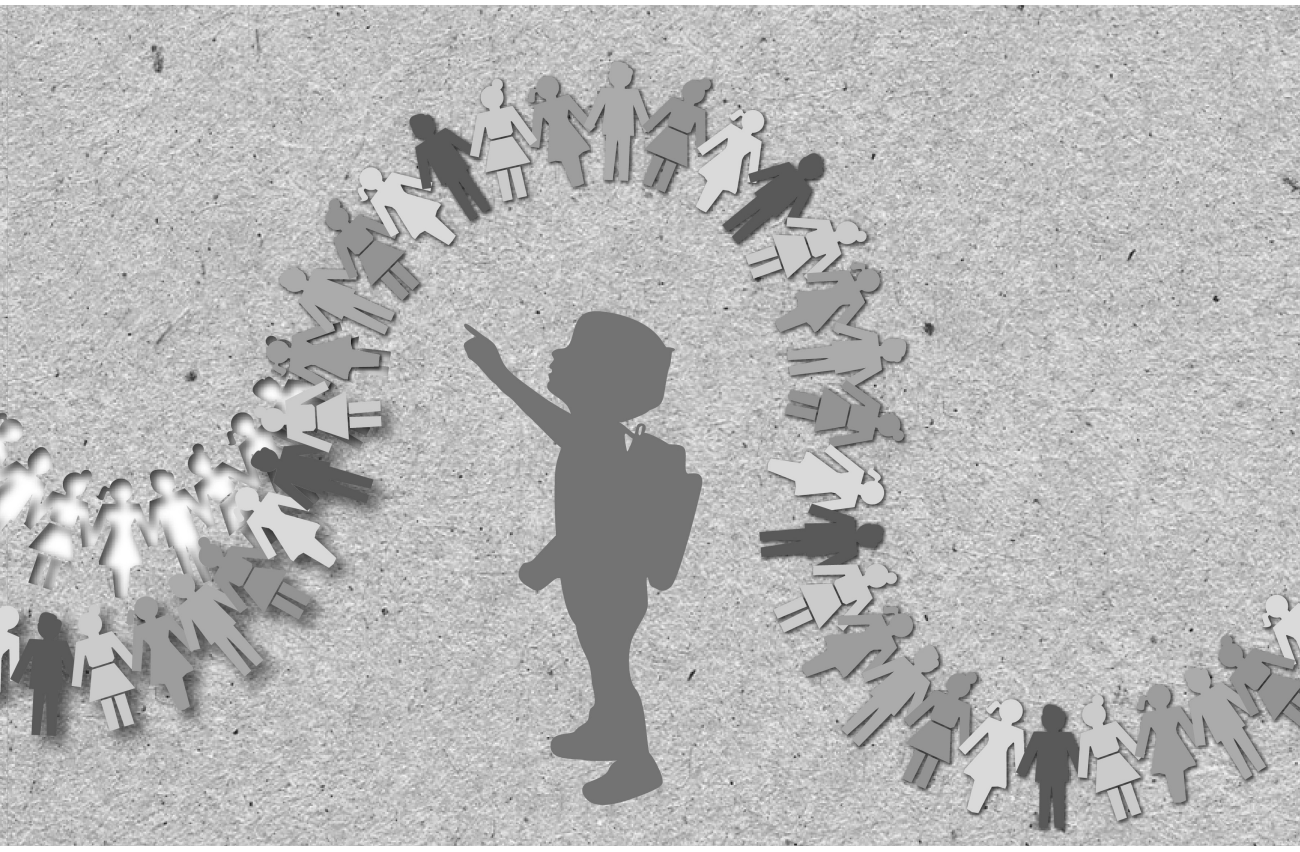

Summary and general discussion

SUMMARY AND GENERAL DISCUSSION

For decades, the parent-team therapeutic alliance is considered clinically crucial for child (semi-) residential treatment outcomes (Christ & Griffiths, 1965; Gross & Goldin, 2008; Kroll & Green, 1997; Scharer, 1999). Although some studies underscored the importance of parent-team alliance in this setting (Green et al., 2007; Kabuth et al., 2005), to date research has been marginal (Elvins & Green, 2008). This is in contrast to adult and youth outpatient studies, in which therapeutic alliance is one of the most widely researched treatment topics (Horvath et al., 2011; McLeod, 2011). In the light of current tendency to focus on evidence based outpatient treatments and effectively shorten and diminish (semi-) residential treatment, it is essential that the knowledge of effective treatment factors in (semi-) residential settings is expanded. The therapeutic contact of treatment team members with parents of the admitted child is a promising process factor. A recent meta-analysis showed that the effect size of the alliance-outcome association was practically identical for the youth alliance and parent alliance in an outpatient psychotherapy setting (McLeod, 2011). Descriptive literature pointed out that a (semi-) residential treatment setting brings along extra challenges to build strong parent-team alliances (Gross & Goldin, 2008). In order for clinical practice to benefit more from empirical research in their task to effectuate child (semi-) residential treatment, this thesis was conducted. Goal of this thesis is threefold: (1) Development of assessment strategies (instruments) for the parent-team alliance; (2) Investigation of the longitudinal relation between the parent-team alliance and treatment outcome and (3) Exploring the effect of strengthening the parent-team alliance. This final chapter summarizes the key findings presented in this thesis and provides a discussion with clinical implications of the findings, strength and limits and recommendations for future research.

Summary of key findings

In Chapter 1 and 2 of this thesis assessment strategies of the parent-team alliance in a (semi-) residential setting were studied. Unique regarding the measurement of the parent-team alliance in a semi-residential setting is the assessment of multiple interpersonal processes as parents have to deal with a team of different health professionals. Specifically developed for this setting of (semi-) residential psychiatry is The Family Engagement Questionnaire (FEQ), which was translated and consequently described and psychometrically examined in **Chapter 1**. The FEQ assesses both the parent and the child alliance from the team's perspective, taking into account the child's alliance

with peers and the therapeutic climate on the ward. After a thorough translation and adaptation to the Dutch language, results of an explorative factor analysis showed remarkable similar factors as conceptualized by Kroll and Green in 1997. In correspondence with Hougaards' theory (1994) a 'youth task alliance' and 'youth personal alliance' were identified, together with a general 'parent alliance scale'. For the youth alliance scales internal consistency and validity were acceptable. However, in contrast with Kroll and Green's (1997) study, the parent alliance's indices were close to acceptable for case managers reports, but not for parent counselor reports. Low agreement was found between two different health professionals of the treatment team, especially on 'personal alliance' aspects, indicating the necessity of an assessment strategy with multiple informants.

As the focus of this thesis is the parent-team alliance, a more thorough conceptualization and psychometrically sound assessment of this construct still needed to be developed. Therefore, in **Chapter 2** a widely used alliance instrument, namely the Working Alliance Inventory- Short Version, is adjusted and psychometrically examined. The instrument is based on Bordin's (1979) theory of a bond, task and goal alliance, and was adjusted to assess routinely the parent-team alliance from the team members' as well as the parents' perspective. Confirmatory factor analyses resulted in the same three factors (Bond, Task and Goal) for the teams' version of the WAV-12R. For the parents' version, however, an adjusted model showed a good fit containing an insight, bond and working (combined Task/ Goals) scale. In line with earlier research (Tracey & Kokotovic, 1989; Vertommen & Vervaeke, 1996), the subscales proved to be reliable and valid, suggesting that the WAV-12R is a solid instrument to routinely measure the parent-treatment team alliance.

From the third chapter onwards, studies were based on the routine assessment of alliance and outcome factors, referred to as Routine Outcome Monitoring (ROM). ROM might be especially beneficial for the (semi-) residential setting as it might provide: 1. longitudinal data on complete samples and 2. useful clinical feedback. The implementation of ROM in a (semi-) residential setting is, however, more complicated than in an outpatient setting, due to multiple participants and variable treatment content. Therefore, **chapter 3** describes the use of a ROM system in a (semi-) residential setting, implemented without the integration of explicit feedback. As earlier research has shown a low engagement of parents during ROM (Batty et al., 2013; Hall et al., 2014; Hall et al., 2013), this study tried to identify variables at the start of treatment, which

predict low completion rates of questionnaires by parents. A ROM system with multiple informants (parents, case managers, parent counselors, teachers and group workers) and multiple questionnaires (alliance and outcome questionnaires) completed with three month intervals resulted in high completion rates of 83% by clinicians and 77% by parents. Factors identified at the start of treatment, which predicted low completion of questionnaires by parents, were a high comorbidity on AXIS 1 of the child, single parenthood of parents, a higher education level of parents and a weaker alliance regarding goal setting according to the case manager.

Based on the ROM longitudinal data, **Chapter 4** investigates more in-depth the relationship between the parent-team alliance, parental stress and child's symptoms. Hypothesized was an interconnectedness between these factors as well as that a positive change in the parent-team alliance would precede a positive change in parental stress and child's symptoms. The central role played by the parent-team alliance in child (semi-) residential treatment is underlined by the results. The study reported a significant longitudinal connection between a strong parent-team alliance, low levels of parental stress and decreased child symptoms. Furthermore, change in parent-team alliance between assessment times was significantly associated with change in the child's symptoms. Our hypothesis that a positive change in the parent-team alliance would precede child's symptom improvement later on was confirmed. However, improved parent-team alliance did not precede low parental stress. The finding that the strength of the parent-team alliance drives child's symptom improvement, has substantial clinical relevance.

As a change in the parent-team alliance influences parental stress levels and even preceded child's symptom change, it is worthwhile to examine the effect of strengthening the parent-team alliance. In **Chapter 5**, the parent-team alliance and child's symptoms were longitudinally investigated while team members invested in alliance strengthening strategies. Approximately half of the children received care as usual (comparison group) and the other half were followed after alliance strengthening strategies were applied (experimental group). The parent-team alliance was significantly stronger and child's hyperactivity symptoms were significantly less in the experimental group. Alliance strengthening strategies, such as partnership, positive attributions and explicitly evaluating the alliance, are found to be an effective treatment element in (semi-) residential psychiatry.

General discussion and clinical implications

Assessment strategies (instruments) for the parent-team alliance. Both the translated FEQ and the adjusted WAV-12R aim to assess the therapeutic alliance between a whole treatment team and both parents, which is unique, as earlier youth alliance instruments measure only a one on one therapeutic alliance (Accurso et al., 2013; Fjermestad et al., 2012; Hawley & Garland, 2008). Measuring the parent-team alliance in the specific setting of child (semi-) residential psychiatry, asks for suitable alliance instruments instead of classical instruments (Blais, 2004; Catty et al., 2012; Munder et al., 2010). Different health professionals with variable therapeutic roles and two parents are involved in (semi-) residential treatment instead of just one, which influences how the alliance is perceived and measured. Single dyad therapeutic alliance should not be studied in isolation in a (semi-) residential setting; instead the multiple, interconnected and sometimes competing alliances between participants must be taken into account.

Next to the shared advantage of both instruments, they complement each other as each measures unique aspects of the parent-team therapeutic alliance. The FEQ takes into account the specific therapeutic setting and the interconnectedness of youth and parent alliances, punctuating the personal bond aspect of the parent-team alliance. The WAV-12R, zooms in on the different components of the parent-treatment team alliance integrating 'bond', 'insight', 'goal' and 'task' components, without an explicit focus on the setting. In contrast to the FEQ, which only can be used in a (semi-) residential group setting, the WAV-12R can be used in other outpatient treatment settings involving a treatment team. Furthermore, the parents' as well as treatment team members' perspective are incorporated in the WAV-12R, while the FEQ assesses the treatment team members' perspective only. In sum, the FEQ and WAV-12R cover together a wide range of underlying concepts to assess the parent-team alliance in a (semi-) residential setting integrating different perspectives.

When combining the results of the first two psychometric studies, the optimal assessment strategy for the parent-team alliance in (semi-) residential psychiatric research should contain multiple informants. The finding that two treatment team members have a low agreement on the FEQ and that factors differed across informants of the WAV-12R, underscores that different participants have unique views on the same alliance. This finding is in line with adult inpatient research which indicated an absence of congruence among the different disciplines' perceptions on the therapeutic alliance

(Gallop et al., 1994). This thesis did not investigate how the perspectives on the alliance differed and how these can be interpreted. Different perspectives on the same parent-team alliance could, however, also indicate a disadvantage of measuring the alliance of a whole treatment team with two parents as aimed by the FEQ and WAV-12R. Interpersonal processes between multiple participants might be too complicated to be captured in one single instrument causing a slight unreliability in measurement. Nonetheless, the FEQ and WAV-12R offer a substantial opportunity to assess the parent-team alliance between a whole team and parents in a complex clinical setting.

An important clinical implication of our results is that treatment team members are encouraged to explicitly reflect on the parent-team alliance, instead of viewing it as an implicit common process factor in therapy (Karver et al., 2005; Wampold, 2005). Especially in (semi-) residential settings this might be beneficial as multiple participants are involved and multiple therapeutic alliances are formed. The therapeutic alliance should be a standard subject on the agenda while evaluating the treatment plan. To support team members and parents in the explicit communication about the parent-team alliance, the WAV-12R is a useful clinical tool to routinely monitor the therapeutic alliance. Feedback about the scores on the WAV-12R provides structured information about the different aspects of the parent-team alliance to the participants. Although some researchers pleaded to use alliance instruments to inform clinicians (Bickman et al., 2011; van Sonsbeek et al., 2014), in this thesis is recommended to use the WAV-12R to simultaneously inform parents and team members. In this way, parents are also given the chance to reflect on the parent-team alliance and to undertake steps in strengthening it. Not only clinicians, but also parents acknowledge the importance of a strong parent-team alliance for treatment results (Scharer, 2002).

Investigation of the longitudinal relation between the parent-team alliance and treatment outcome. A new opportunity to expand the scarce literature in (semi-) residential settings, to overcome methodological challenges typical for this setting and to provide clinical tool, is the implementation of Routine Outcome Monitoring. Earlier outpatient studies pointed out a low questionnaire completion by parents as a hindrance during ROM implementation (Batty et al., 2013; Hall et al., 2014; Hall et al., 2013). This might be even more the case in (semi-) residential units where parents already experience higher stress levels due to their child's admission. Remarkably, while we expected a lower completion of questionnaires by parents compared to clinicians, the difference in our study was only marginal (77 vs 83%). The reason for both relative high completion

rates is most likely the substantial attention from the helpdesk and administrative support for participants. The incorporation of a feedback system on ROM assessments during treatment might even further optimize clinical benefits and encourage completion rates. When implementation of ROM includes benchmarking goals only, with start and end assessments, clinicians, youth and parents don't experience benefits (Delespaul, 2015). As a result response rates are expected to be much lower. The implementation strategy used in our study with substantial administrative and electronic support and a clinical focus, may set the stage for a more widespread integration of ROM systems in (semi-) residential psychiatry.

When implementing ROM on a broader (institute) level, achieving high questionnaire completion rates remains a challenge. Policy makers, researchers and team members could, therefore, benefit from our results regarding factors at the start of treatment which predicted a low completion of questionnaires by parents. These involved a high comorbidity on AXIS 1 of the child, single parenthood of parents, a higher education level of parents and a weaker alliance regarding goal setting according to the case manager. Apparently, parental stress at start did not influence low completion of questionnaires by parents, which might be the result of parents overall willingness to contribute to the child's treatment process. Alertness should be created among clinicians during parents' ROM assessments, on the significant predictive factors preventing low completion of questionnaires. Our ROM implementation study, together with recent studies of Hall and colleagues (Hall et al., 2014; 2013), provide specific guidelines for clinical practice, which make ROM feasible and beneficial for youth, parents and team members.

Implementation of ROM in complex treatment settings is worthwhile, as can be seen in the in-depth findings about the longitudinal interconnectedness of treatment constructs in Chapter 5. While methodological challenges contribute to the scarce research in (semi-) residential settings (Elvins & Green, 2008), our study introduces ROM as a sound method to examine longitudinally (semi-) residential treatment factors. Results showed a meaningful interplay between the parent-team alliance, parental stress and child's symptoms during the child's (semi-) residential treatment. Descriptive and qualitative studies showed that parents of an admitted child can experience complex emotions (Geraghty et al., 2011; Gross & Goldin, 2008; Scharer, 1999) and that they are often disappointed in the way the treatment team collaborates with them (Scharer, 2000). Our longitudinal empirical findings support this interconnectedness between

high parental stress levels and a less strong parent-team alliance. A clinical effort is needed of treatment team members to be sensitive and responsive to emotions of parents during the admission of their child. Remarkably, our expectation, that a positive change in parent-team alliance would precede a positive change in stress levels, was not confirmed. A change in externalizing symptoms of the child was, however, related to a change in parental stress levels. This suggests that regarding parental stress treatment teams' investment in reducing child's externalizing symptoms is important.

Our hypothesis was confirmed that a positive change in the parent-team alliance precedes a later positive change in child's symptoms and not the other way around. This finding underlines the crucial role of the parent-team alliance as an effective treatment factor which should receive continuous clinical attention. The current trend focuses on evidence based treatments in outpatient settings (Weisz et al., 2005) and diminishing (semi-) residential settings (James et al., 2006). Our results suggest a shift in focus from evidence based modules to effective process factors in (semi-) residential settings.

Exploring the effect of strengthening the parent-team alliance. The next important step was to examine how strengthening the therapeutic alliance between parents and treatment team members influences (semi-) residential treatment outcome. Descriptive literature broadly described the dynamics and challenges of forming a strong parent-team alliance in (semi-) residential psychiatry (Gross & Goldin, 2008; Scharer, 1999, 2000). Specific alliance strengthening strategies could be delineated from this literature, such as partnership with parents in treatment design and evaluation, positive attributions of parents and explicitly evaluating the parent-team alliance. These alliance strategies were implemented additionally to the regular treatment program in the semi- residential units. Despite a comprehensive protocolled training, a high inter rater agreement score on integrity procedures to the use and competence of these alliance building strategies was not achieved. An explanation might be that the strategies were added to a comprehensive treatment program and applied by a whole team, which makes assessment of the implementation of alliance strategies complicated. Further, the strategies were chosen to strengthening the bond, task and goal aspect of the therapeutic alliance (Bordin, 1979). Less attention was given in the protocolled alliance training to handle specific alliance ruptures (Eubanks-Carter, Muran, & Safran, 2015). Though the focus on strengthening the alliance may prevent alliance ruptures, it is assumed that alliance ruptures are unavoidable in (semi-) residential treatment (Kroll & Green, 1997).

Nonetheless, the development of the parent-team alliance and the reduction of child's hyperactivity symptoms during the child's semi-residential treatment were significantly more positive for the experimental group. From the start on and throughout the treatment, the parent-team alliance was rated significantly stronger by both parents and the clinical psychologist in the trained group. With regard to the child's symptoms, the hyperactivity scale only, showed a significant difference between the comparison and experimental group. This is, however, a result of clinical significance, as former research consistently showed a relation between therapeutic alliance and child's externalizing problems (Green et al., 2007; Kazdin et al., 2005; Shirk & Karver, 2003) and children with externalizing problems are often prominently represented in (semi-) residential care. Thus, a structured investment of treatment team members is likely to pay off in a more effective semi-residential treatment environment for the child. Given the stressful emotions parents can experience during the admission of their child (Geraghty et al., 2011) and the complex dynamics of parallel processes that exists (Gross & Goldin, 2008), treatment team members need structured strategies to handle the parent-team alliance. A strong parent-team alliance contributes to a strong investment of parents in their child's treatment and in a quick recovery of the home-environment.

Strengths and limitations

To our knowledge, this is the first study that longitudinally investigates the parent-team alliance-outcome relation and tried to strengthen the parent-team alliance. As seen in the discussion above, findings of this study provide clinical guidelines to improve the effectiveness of (semi-) residential treatment. Another strength is that it was conducted in the complex setting of child (semi-) residential psychiatry, in which empirical research to effective treatment elements is scarce (Green et al., 2007). This study suggests that measurement of alliance and outcome from multiple perspectives and with multiple assessments is possible and useful. The multilevel analyses conducted in the last three studies provided a thorough statistic method, which took into account the variable treatment lengths, the independency of assessment times and the reports of multiple informants. Notwithstanding, in order to interpret the results of this thesis, some limitations with regard to the study design and methods, should be taken into account.

Our study was based on one institution for child and adolescent psychiatry in The Netherlands with only a limited sample size. Therefore, it is unknown if factors specific to this institute or to the treatment teams involved, had an influence on the presented

results. Although the institute is one of the few that offer (semi-) residential psychiatric treatment in The Netherlands and other institutes follow similar treatment methods, generalization of our results is unknown. Another factor complicating generalization, is that our main sample consisted predominantly (70%) of children with a disorder in the autistic spectrum. It is unclear if our findings also account for other patient groups in (semi-) residential psychiatry that differ in age, informants, treatment contents and psychopathologies.

Another limitation of this study is that we mainly looked at the parent-team alliance, and not to factors that might or have shown to be influencing this alliance. These involve: (1) child factors, such as the severity and complexity of the disorder, the relationship of the child with the parent, motivation for treatment etc.; (2) parent factors, such as their attachment history, expectation of the treatment, motivation for treatment, satisfaction with treatment, attendance to parental sessions etc.; (3) treatment team members factors, such as group climate, alliances between team members, self-reflection and treatment skills etc. and (4) organization factors, such as leaderships skills, treatment policy, absenteeism etc. Empowering parents can only be accomplished, if treatment team members are themselves empowered (Allen & Warzak, 2000). In addition, there is a strong interconnectedness between the multiple therapeutic alliances in (semi-) residential psychiatry (Kroll & Green, 1997) and perspectives on these alliances differ. Although optimal, it is almost impossible to capture all these important alliances and perspectives in one single study.

Last, a randomized controlled trial would have been preferred to evaluate the effectiveness of an important treatment factor like strengthening the parent-team alliance. The severity of patients' disorders and their often urgent need for hospitalization made randomising into groups both practically and ethically difficult. In addition, randomizing children on the same unit would undoubtedly have resulted in mutual influencing effects between treatments. Our AB design offered the possibility to compare two groups with a slightly different treatment. However, a pitfall concerns time aspects influencing our findings. In the time period from June 2011 until December 2012, the institute had to reduce units and shorten treatment lengths, which resulted most likely in significantly shorter treatment lengths in the experimental group. Furthermore, we cannot be certain if the team members also promoted the parent-team alliance for children still in treatment in the comparison group, after being trained in alliance strengthening strategies.

Recommendations for future research

To confirm our conclusions regarding the parent-team alliance as an effective and strengthening process factor in semi-residential psychiatry, it is recommended to perform a multi-center research with more (semi-) residential units with differentiated psychopathology and more treatment teams. This way, comparison can be made between semi-residential and residential treatment, between treatment teams, between different groups of psychopathology and between age groups. Furthermore, to examine even more thorough the effectiveness of the alliance strengthening strategies, randomization on unit level is recommended.

This thesis stated that, especially in (semi-) residential settings, the development of the parent-team alliance is interconnected with the development of the child-alliance. Thus, ideally, future alliance studies should include the child and parent alliance simultaneously. An important task for future research is to longitudinally investigate the child and parent alliance in a (semi-) residential setting in relation to outcome factors. Both the child and the parents should then be involved as informants to create insight in the child and parent alliance (Zack et al., 2007). In addition, alliance building strategies could be developed for the child-parent-team alliance, instead of only for the parent-team alliance. Especially for adolescents, the quality of the youth therapeutic alliance is an important determinant of treatment drop-out (de Haan, Boon, de Jong, Hoeve, & Vermeiren, 2013; Hawley & Weisz, 2005). Forming a strong therapeutic alliance with youth is more hindered in (semi-) residential treatment compared to outpatient treatment, as youth are often more resistant to treatment and less motivated (Byers & Lutz, 2015). Strengthening the youth-parent-team alliance might have even more differentiated effects on (semi-) residential treatment outcomes.