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ORIGINAL PAPER

Predictive Value of Parent-Professional Alliance for Outcomes of Home-Based Parenting Support

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Abstract

Background Home-based parenting support within youth care services is one of the key interventions provided to families encountering difficulties with child rearing and child development. However, knowledge on factors contributing to positive outcomes of home-based parenting support is limited.

Objective The current study investigated the predictive value of (1) early parent-professional alliance and (2) change in alliance during care for outcomes of home-based parenting support.

Method Multi-informant self-report alliance and outcome data from 146 parents (*M*age = 40.00, *SD* = 7.10; range 19–57 years) and their professionals collected early and late in care were analyzed using latent growth curve modeling.

Results Findings demonstrated that higher levels of early parent-reported alliance predicted higher levels of parent-reported satisfaction with care, and improved parent functioning. Higher levels of early professional-reported alliance predicted higher levels of parent- and professional-reported satisfaction, and improved parent functioning. Increases in professional-reported alliance during care predicted higher levels of professional-reported satisfaction and parent functioning but were not related to parent-reported outcomes. Change in parent-reported alliance was not related to outcomes.

Conclusions Together, our findings suggest that a strong parent-professional alliance represents a key process factor in realizing positive outcomes of home-based parenting support. Consequently, efforts in research and practice are needed to investigate precursors of strong alliances and to optimize professionals' ability to develop and maintain strong parent-professional alliances.

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Introduction

Youth care systems provide services to families that need assistance as a result of difficulties related to parenting or child development. Within the youth care service sector (hereafter referred to as *youth care*) home-based parenting support is a key service provided to families. Of all the families involved in youth care services, ranging from home-based services to residential treatment, the majority (around 80%) receive home-based parenting support (Barth et al. 2005; Child Welfare Information Gateway 2014; Statistics Netherlands 2015). Providers of home-based parenting-support services (e.g., child welfare agencies, community-based youth care organizations) aim to promote parental competencies (Barth et al. 2005; Whittaker and Cowley 2012) and thereby optimize children's development (Lewis et al. 2016), oftentimes with the goal of trying to preserve families. Although these services are important, they have undergone relatively little empirical examination (Barth et al. 2005). As a result, knowledge about factors contributing to positive outcomes of home-based parenting support is scarce.

One factor that may play an important role in facilitating positive outcomes in parent-focused services is the parent-professional alliance. The alliance can be defined as a collaborative client-professional relationship involving a positive and supportive bond, agreement on treatment goals, and agreement on tasks to be performed to accomplish these goals (Elvins and Green 2008; Smith et al. 2010). Numerous studies conclude that a strong alliance predicts positive outcomes of individual adult treatment (Horvath et al. 2011; Hubble et al. 2010; Martin et al. 2000; Norcross 2010) and family treatment (Friedlander et al. 2011) across a variety of theoretical orientations and diagnoses. Although less studied, previous meta-analyses also indicate that a strong parent-professional alliance predicts positive outcomes of youth treatment (McLeod 2011; Shirk et al. 2011).

Based on these findings, it is reasonable to expect that a strong parent-professional alliance may contribute to positive outcomes of home-based parenting support. Parents are the main target of service and improvements in children's functioning mainly depend on the parents' ability to improve their parenting skills. Moreover, parents likely present to these services with varying levels of motivation, especially for court-mandated cases (Faver et al. 1999; McWey et al. 2015; Staudt 2007). For these reasons, a professional's ability to develop and maintain a positive alliance with parents may be important to engage parents in services and thereby realize positive outcomes. Surprisingly though, the parent-professional alliance, especially in parent-focused care, is largely understudied (De Greef et al. 2017). Consequently, it remains unknown how important the parent-professional alliance is for home-based parenting support outcomes.

To our knowledge, only two studies have examined the association between the parent-professional alliance and outcomes of parenting support in youth care samples. First, Hukkelberg and Ogden (2013) examined the relation between alliance and children's externalizing problem behaviors in a sample of 331 parents involved in Parent Management Training-Oregon model following recruitment from youth care organizations. Higher levels of late parent-reported alliance predicted less change in parent-reported child problem behavior from start to post-treatment and were not related to change in teacher-reported problem behavior. Second, Schmidt et al. (2014) studied the alliance-outcome association in a sample of 117 families involved in a group Triple P

intervention. A little more than half of the parents had past involvement or were currently involved in youth care services. Higher levels of early parent-reported alliance predicted greater improvement in parenting skills, parental sense of competence, and child conduct problems. Therapist-reported alliance only predicted therapist-reported evaluation of parent progress and improvement.

Two additional studies have investigated the association between the parent-professional alliance and outcomes of home-based services for families. First, Girvin et al. (2007) examined the association between alliance and program completion in a sample of 136 families enrolled in Family Connections, a home-based child neglect preventive intervention. Parents who completed services reported higher levels of parent-reported alliance at post-treatment compared to noncompleters. Second, Korfmacher et al. (2007) studied the association between the alliance and program participation in a sample of 728 families involved in voluntary and preventive early childhood home visiting services. Parent-reported alliance was associated with higher concurrent levels of parent-reported program satisfaction and higher levels of professional-reported family-involvement. Parent-reported alliance did not predict subsequent levels of program satisfaction or drop-out.

The findings from these four studies suggest that a strong alliance might be related to positive outcomes of home-based parenting support provided to youth care samples. However, the direction and strength of these effects differed within and between studies. Moreover, since these studies focused on evidence-based (group) interventions (Hukkelberg and Ogden 2013; Schmidt et al. 2014) or preventive interventions (Girvin et al. 2007; Korfmacher et al. 2007) it is questionable whether the findings generalize to usual care. Parenting support is usually provided in-home to individual families (Barth et al. 2005) and evidence-based interventions are underused in youth care (Barth et al. 2005; Horwitz et al. 2010; Veerman and De Meyer 2015). Indeed, home-based parenting support services in youth care are typically eclectic, non-protocolized, and grounded in various approaches (e.g., Intensive Family Treatment; Veerman and De Meyer 2015). Moreover, parenting support in youth care is typically provided to families with already developed and often severe psychosocial problems related to parenting, child functioning and parent–child interaction. To help establish if findings from previous studies will generalize it is important to evaluate the alliance-outcome association in typical care.

In this paper, we investigated the alliance-outcome association in home-based parenting support and we employed several methodological features to strengthen the interpretability of our findings. First, we assessed the alliance and outcomes from the perspective of parents and professionals, as previous studies indicated that client- and professional-reports of alliance might differ (Hawley and Garland 2008). Client- and professional-reports might also be differentially related to outcomes, with stronger associations for client-reported alliance (Hawley and Garland 2008; Schmidt et al. 2014). Moreover, studies showed that the alliance-outcome association is stronger when the same informants report on both alliance and outcome (De Greef et al. 2017; McLeod 2011). The use of multiple-informant data enables us to investigate the association between parent- and professional perceptions of the alliance and whether these perspectives are differentially related to outcomes. Second, we assessed alliance early in care (i.e., first half) to avoid potential confounding with improved client functioning (Kazdin 2007; McLeod 2011). Third, we assessed the alliance multiple times to investigate if the alliance changed over the course of care (Chu et al. 2013; Kendall et al. 2009). Also, investigating the predictive value of early alliance and change in alliance informs professionals about the potential importance of establishing and maintaining positive alliances for positive outcomes of home-based parenting support. Fourth, alternative third-variable explanations that may account for the alliance-outcome

association were evaluated. Finally, we used the Working Alliance Inventory, Short Form to assess the alliance, which has strong score reliability and validity.

To expand on previous studies, we examined the predictive value of the parent-professional alliance for outcomes of home-based parenting support in youth care settings, using two-wave data from a sample of 146 parent-professional dyads. We investigated whether early alliance and change in alliance predicted satisfaction with the process and outcomes of care, and changes in parent functioning. We hypothesized early alliance and increases in alliance to be positively related to outcomes. Further, we expected that the alliance-outcome association would be stronger for parent-reported alliance compared to professional-reported alliance. Finally, we expected the alliance-outcome association to be stronger when the same informant reported on alliance and outcome as opposed to different informants.

Method

Participants

Participants were 146 parents (*M*age = 40.00 years, *SD* = 7.10; range 19–57 years) drawn from nine Dutch youth care organizations providing home-based parenting support to target severe psychosocial problems related to parenting, child behavior, and parent–child interaction. As these often multiple and interacting problems put the development of children in these families at risk, home-based parenting support also aims at preventing out-of-home care. On average, parents (89.0% female) received support for 6.64 months (*SD* = 2.31; range 2.60–20.01) for 1.80 h (*SD* = 0.98; range 0.50–5.00) a week. Some parents (12.5%) were required to receive services by court order. The majority of parents were born in the Netherlands (90.4%), others were born in another Western (2.7%) or Non-Western (6.9%) country. Children were mostly boys (60.4%) and were between 1 and 19 years old (*M* = 10.74 years, *SD* = 4.37). Services were part of routine practices in participating youth care organizations, meaning that services were eclectic, non-protocolized, and grounded in various approaches (e.g., Intensive Family Treatment; Veerman and De Meyer 2015). Ninety-one professionals (*M*age = 43.89 years, *SD* = 10.49; range 23–62 years) provided services to one to five families (*M* = 1.60, *SD* = 0.89). The majority of professionals were female (92.3%), born in the Netherlands (97.8%), and held a professional bachelor degree (88.4%). Their average level of experience as a provider of home-based services was 8.40 years (*SD* = 6.17, range = 4 months–36 years).

Procedure

Professionals providing home-based parenting-support asked parents to participate in this study when they were admitted to or just started care. Parents were excluded from study participation if children (age 0–21) were not living at the parents' home (e.g., residential facility or foster family) or if the start of parent-professional collaboration was the result of assigning a new professional to the case. Parents were given written information about the study and were informed that refusal to participate in the study did not exclude them from access to services. A total number of 241 parents met inclusion criteria, agreed to participate, and completed permission forms. Subsequently, parents and professionals completed T_1 questionnaires. To be included in the analyses, parents and professionals needed to meet

our criteria for T_1 measurement by completing T_1 questionnaires in early phases (i.e., first half) of care; 146 cases met this requirement. Of these 146 parent-professional dyads, 107 parents and 143 professionals completed T_2 questionnaires at the end of services or at the end of the study period. Since professionals were instructed to select cases for study participation where the expected end of care did not exceed the study period, we consider the timing of T_2 assessments to be late in care. Parents and professionals had no access to each other's answers. All procedures were institutional review board approved.

Measures

Alliance

At T_1 and T_2, the alliance between parents and professionals was assessed with the Working Alliance Inventory, Short Form (WAI-S; Tracey and Kokotovic 1989). The WAI-S consists of 12 items. Four items assess task-related elements of the alliance (e.g., "My professional and I agree about things I will need to do in care to help improve my situation"), four items assess goal-related elements (e.g., "My professional and I are working towards mutually agreed upon goals"), and four items assess bond-related elements of the alliance (e.g., "I believe my professional likes me"). Answers are given on a 5-point scale ranging from 1 (never) to 5 (always). WAI-S scores have shown strong internal consistency in parent samples (Granic et al. 2012; Hukkelberg and Ogden 2016), and predictive validity for care outcomes (Keeley et al. 2011). Total scales showed strong internal consistency in the current sample (parent version: $\alpha\ T_1 = .94$, $\alpha\ T_2 = .93$; professional version: $\alpha\ T_1 = .92$, $\alpha\ T_2 = .96$). Parents and professionals completed separate but identical versions of the WAI-S.

Satisfaction with Care

At T_2, we used the EXIT questionnaire (Jurrius et al. 2008) to derive information on parents' and professionals' satisfaction with the care received or offered. The EXIT questionnaire, a standard instrument in the Dutch youth care system, consists of 11 items and two subscales. Four items assess satisfaction with the care process (e.g., "The care offered by this professional went well"), six items assess satisfaction with care results (e.g., "As a result of the provided care I have more confidence in the future"). Answers are given on a four-point scale, ranging from 1 (totally disagree) to 4 (totally agree). A final item of this questionnaire asks for a grade (1–10) to assess general satisfaction with the provided care. To ensure that all outcome measures could be reported by parents and professionals, we developed a professional version of the EXIT questionnaire for the purpose of this study. The parent version of this scale has demonstrated strong internal consistency in previous studies (Stichting Alexander 2008) and the current sample (α care process = .89, α care results = .84). Analyses in the current sample indicated that the psychometric qualities of the professional version (α care process = .77, α care results = .84) are also adequate.

Global Change in Parent Functioning

At T_2, we used the global measure of change (Alexander and Luborsky 1986; Stinckens et al. 2009) to assess global change in parent functioning during care trajectories. Both parents and professionals evaluated the extent to which they perceived the situation of parents to be changed as a result of provided care (i.e., "Since I started to collaborate

with this professional, my situation got…"). Answers are given on a 9-point Likert-scale, ranging from −4 (very much worse) to 4 (very much better). Previous studies investigating the association between alliance and treatment outcome used this instrument to assess treatment outcome (e.g., Stinckens et al. 2009). Moreover, previous studies indicated that both the client and the therapist version of this single question demonstrated high correlations with more extensive measures to assess clients' development during care (Hatcher and Gillaspy 2006), and produced similar patterns of correlations with alliance as more extensive change measures did (Hatcher 1999).

Statistical Analyses

The effects of early alliance and alliance change on outcomes were investigated by means of latent growth curve models (LGM) within a structural equation modeling (SEM) framework (Bollen and Curran 2006) in Mplus 7.3 (Muthén and Muthén 1998–2012). Note that a typical LGM with equally spaced assessments is not identified with only two waves of data. However, when times of assessment are varying across individuals, as was the case in our study, it becomes possible to estimate all standard LGM parameters. By applying the TSCORES option in Mplus, the program accommodates individual slope loadings via the implementation of definition variables. This involves creating a set of slope factor loadings unique to each individual, in our case based on the time intervals (in months) between the start of care and the alliance assessments.

Analyzing (correlates of) change by means of LGM in Mplus has several advantages. First, change in alliance is modeled as a latent factor. As pointed out by Raykov (1999), modeling change on a latent dimension is often a better approach than modeling observed change scores (see also Voelkle 2007). Whereas observed change scores contain measurement error, the latent slope within an LGM represents the true difference score. Second, by using an LGM with individually varying times of observation we were able to account for the individual differences in timing of the T_1 and T_2 assessments. Thus, the intercept and slope become clearly interpretable as the level of alliance at the start of care and the monthly increase in alliance during care, respectively. Third, we were able to make use of all available data and provide better estimations of standard errors when normality assumptions are violated by applying a full-information maximum likelihood (FIML) estimator with robust standard errors, implemented as MLR in Mplus. Finally, non-independence of observations due to the fact that clients were nested within professionals could be accounted for by means of the sandwich variance estimator (Type = COMPLEX) as implemented in Mplus. The sandwich estimator produces corrected standard errors for non-independent data.

In our models the outcome variables were regressed on the intercept and slope factors to investigate the effects of early alliance and alliance change on outcomes, respectively. Separate models were specified for parent and professional reported alliance. Moreover, we examined whether the associations between alliance and outcome held when controlling for a series of background variables (i.e., client characteristics: child age and sex, parent age, sex and ethnicity; case characteristics: court ordered care; professional characteristics: age, sex, ethnicity, work experience). We collectively added these background variables to our models, and specified paths from these variables to the intercept and slope factors and outcome variables.

Table 1 Means and standard deviations for alliance and outcome variables

	Parent-report		Professional-report		$p <$
	M	*SD*	*M*	*SD*	
Early alliance	4.36	0.57	3.89	0.51	.001
Late alliance	4.46	0.46	3.90	0.62	.001
Satisfaction: process	3.67	0.42	3.31	0.38	.001
Satisfaction: results	3.25	0.49	3.00	0.46	.001
Satisfaction: grade	8.20	0.98	7.11	0.93	.001
Change in parent functioning	2.32	1.21	1.84	1.15	.010

Table 2 Means and variances for intercepts and slopes of alliance variables

	Intercept		Slope	
	M	σ^2	*M*	σ^2
Parent-reported alliance	4.36***	.14***	.01	.001
Professional-reported alliance	3.91***	.25***	−.01	.005

***$p < .001$

Results

Preliminary Analyses

On average, the first time point for selected cases ($n = 146$) fell a little over 2 months after admission (*M* parents: 2.33, $SD = 1.21$; range 1 week–6.3 months, *M* professionals: 2.34, $SD = 1.12$; range 2 weeks–6.8 months). Parents ($n = 107$) and professionals ($n = 143$) completed T_2 questionnaires (parents: *M* months after $T_1 = 3.71$, $SD = 1.72$; range 1.38–13.80, professionals: *M* months after $T_1 = 3.93$, $SD = 1.40$; range 1.68–8.77) at the end of services or at the end of the study period. The selected sample did not differ from the total sample ($n = 241$) on demographic variables (age, sex, ethnicity) or parent's voluntary or mandated involvement in services. Data were missing completely at random (Little's missing completely-at-random test $\chi = 52.42$, $df = 40$, $p = .09$) and missingness was not related to parent- or professional-reported alliance at T_1. We thus used a full-information maximum likelihood (FIML) estimator with robust standard errors, implemented as MLR in Mplus to address the missing data. As a result, we could make use of all available data ($n = 146$).

Means and standard deviations of alliance and outcome variables are presented in Table 1. Both parents and professionals reported high levels of early and late alliance, with parents reporting significantly higher levels of alliance (early: $t(145) = 9.11$, $p < .001$; late: $t(103) = 7.34$, $p < .001$), satisfaction with care (process: $t(89) = 6.06$, $p < .001$; results: $t(89) = 3.72$, $p < .001$; grade: $t(102) = 8.00$, $p < .001$), and change in parent functioning ($t(103) = 2.75$, $p < .01$). Means and variances for intercepts and slopes of alliance variables are presented in Table 2. Intercept means showed parents' and professionals' high mean levels of early alliance; their significance indicates that scores significantly differed from zero (which is trivial for ratings on a 1–5 scale). Intercept variances indicated that there are substantial individual differences in early parent- ($\sigma^2 = .14$, $p < .001$) and professional-reported ($\sigma^2 = .25$, $p < .001$) alliance. However, slope means and variances revealed

no significant change in alliance over time, and no significant variation in alliance change across cases (parent-reported alliance: $M = .01$, $p = .32$; $\sigma^2 = .001$, $p = .56$; professional-reported alliance: $M = -.01$, $p = .68$; $\sigma^2 = .005$, $p = .10$). Correlational analyses showed strong correlations between early and late alliance ratings from parents ($r = .52$, $p < .001$) and professionals ($r = .56$, $p < .001$). Correlations between parent- and professional-reported alliance indicated a moderate relation between both reports early in care ($r = .33$, $p < .001$), and a small and nonsignificant relation in late phases ($r = .16$, $p = .12$).

Early Alliance Predicting Outcome

We examined whether parent- and professional-reported alliance predicted parent- and professional-reported satisfaction with care and change in parent functioning, using a series of regression analyses. Table 3 shows the unstandardized regression coefficients for the effects of early alliance and alliance change on outcome variables. With respect to the predictive value of early alliance, we found a positive significant relation between parent-reported alliance and parent-reported satisfaction with care (process: B = .87, $p < .001$; results: B = .72, $p < .001$; grade: B = 1.99, $p < .001$), and change in parent functioning (B = .95, $p < .001$). Also, early parent-reported alliance significantly predicted higher levels of professional-reported satisfaction with the care process (B = .28, $p < .001$) and results (B = .22, $p < .001$), but did not evidence a significant relation with professional-reported general satisfaction with care (grade: B = .15, $p = .07$) and change in parent functioning (B = .07, $p = .33$). Thus, a strong parent-reported alliance early in care predicted higher parent- and professional-reported levels of satisfaction with care, and parent-reported improvement in parent functioning as assessed late in care trajectories.

Second, regarding the predictive value of early professional-reported alliance we found that alliance significantly predicted higher levels of satisfaction as reported by parents (process: B = .25, $p < .001$; results: B = .34, $p < .001$; grade: B = .91, $p < .001$) and professionals (process: B = .54, $p < .001$; results: B = .63, $p < .001$; grade: B = 1.16, $p < .001$). Moreover, alliance was also found to be a significant predictor of parent- and professional-reported change in parent functioning (parent: B = .87, $p < .001$; professional: B = .83, $p < .001$). Thus, a strong professional-reported alliance early in care predicted higher parent- and professional-reported levels of satisfaction with care and improvement in parent functioning as assessed late in care trajectories.

Change in Alliance Predicting Outcome

We examined whether changes in parent- and professional-reported alliance during care predicted parent- and professional-reported satisfaction with care and change in parent functioning (see Table 3). We found that changes in parent-reported alliance were not significantly related to parent- or professional reported outcomes. However, we found a positive significant relation between increases in professional-reported alliance and professional-reported satisfaction with care (process: B = 3.93, $p = .01$; results: B = 5.67, $p < .01$; grade: B = 13.69, $p < .01$), and change in parent functioning (B = 10.32, $p = .01$). Changes in professional-reported alliance were not significantly related to parent-reported outcome variables. Thus, improved professional-reported alliances over the course of care predicted higher levels of professional-reported satisfaction with care and improvement in parent functioning as assessed late in care.

Table 3 Unstandardized regression coefficients for the effects of early alliance and change in alliance on outcomes

	Parent-reported outcomes				Professional-reported outcomes			
	Satisfaction: process	Satisfaction: results	Satisfaction: grade	Change in functioning	Satisfaction: process	Satisfaction: results	Satisfaction: grade	Change in functioning
	B	B	B	B	B	B	B	B
Alliance: parent-report								
Intercept	0.87***	0.72***	1.99***	0.95***	0.28***	0.22***	0.15	0.07
Slope	7.66	4.89	9.00	8.27	4.37	7.44	13.10	9.06
Alliance: professional-report								
Intercept	0.25***	0.34***	0.91***	0.87***	0.54***	0.63***	1.16***	0.83***
Slope	0.76	2.28	2.97	4.73	3.93**	5.67**	13.69**	10.32**

*$p \leq .05$; **$p \leq .01$; ***$p \leq .001$

Competing Constructs that Might Explain the Alliance-Outcome Association

To rule out potential alternative explanations of the significant alliance-outcome associations (Feeley et al. 1999), we examined whether a series of client (child: age, sex; parent: age, sex, ethnicity), case (court ordered care yes/no), and professional (age, sex, ethnicity, work experience) characteristics acted as third variables. When we reexamined significant alliance-outcome associations with these client, case, and professional characteristics entered as covariates, previous findings largely held. However, early parent-reported alliance was no longer a significant predictor of professional-reported satisfaction with the care process (B = .09, $p = .40$) and results (B = − .01, $p = .93$). All other alliance-outcome associations remained significant, indicating that these findings were not likely to be explained by confounding factors.

Discussion

The current study investigated the predictive value of the parent-professional alliance for outcomes of home-based parenting support in youth care. We examined the role of early alliance and change in alliance in predicting satisfaction with care and change in parent functioning, as assessed late in care. The findings showed that strong early alliance predicted higher levels of satisfaction with care and improved parent functioning. Parent-reported early alliance predicted parent-reported outcomes, whereas professional-reported early alliance predicted parent- and professional-reported outcomes. Furthermore, increases in professional-reported alliance over time predicted higher levels of professional- but not parent-reported outcomes. Changes in parent-reported alliance were not predictive of outcomes. These findings indicate that a stronger parent-professional alliance was generally linked with positive outcomes, although findings did vary across informants and alliance assessments.

Overall, these findings are consistent with and support previous studies that found a strong parent-professional alliance is associated with improved outcomes of parenting interventions (Schmidt et al. 2014), and youth treatment (De Greef et al. 2017; McLeod 2011; Shirk et al. 2011). Furthermore, in line with our expectations, findings indicated that several factors might impact the strength of the alliance-outcome association. First, the alliance-outcome association differed across alliance assessments. As expected, both early alliance and change in alliance predicted outcomes. However, only change in professional-reported alliance was significantly related to outcomes, with increasing alliances predicting improved outcomes. Moreover, increasing professional-reported alliances only predicted improved professional-reported outcomes, with smaller effects compared to early professional-reported alliance. It is possible parent-reported alliance did not predict outcomes due to ceiling effects (i.e., scores were high and stable over time; Hukkelberg and Ogden 2013; McLeod et al. 2016). High early parent-reported alliance scores leave little room for improvement (Owen et al. 2016). Furthermore, parent- and professional-reported alliances seem to be relatively unaffected by what happens between early and late phases of care—although alliance assessments throughout services could have provided more detailed and different information on the alliance trajectories (e.g., McLeod et al. 2016). Moreover, absence of substantial variance in alliance change might explain limited findings regarding the predictive value of change in alliance. Still, even small

increases in professional-reported alliance seem to be clinically relevant given their predictive value for outcomes. Also, previous studies indicate that alliance growth in initial (i.e., first seven) sessions predicts outcomes of youth treatment (Owen et al. 2016). The present study did not capture alliance growth in initial sessions, and the alliance as reported by parents and professionals might already have been stabilized at the time of our early alliance assessment.

Second, in line with expectations and previous studies (De Greef et al. 2017; McLeod 2011), our findings indicate that the alliance-outcome association was stronger when the same informant reported on alliance and outcome. However, significant alliance-outcome associations were not restricted to one informant and were not solely accounted for by common rater variance. Contrasting our hypothesis, the professional-reported alliance turned out to be a more consistent predictor of outcomes compared to parent-reported alliance. This difference in findings might be explained by the very high alliance levels as reported by parents, resulting in little variability among parent-reported alliance (Green et al. 2014; Shirk and Karver 2003). Another possible explanation is that this may be due to the fact that previous studies did not (Hukkelberg and Ogden 2013) or only partly (Schmidt et al. 2014) include professional-reported outcome measures. As a result, the stronger alliance-outcome association for parent-reported alliance might have been inflated by common rater variance. Notwithstanding these contrasting findings, both parent and professional alliance reports are valuable sources of information since both predict outcomes, and given the discrepancies (i.e., low correlations) between alliance reports of both informants (Kazdin and Whitley 2006). A challenge for future studies is to further investigate alliance agreement and its role in predicting outcome (e.g., see Fjermestad et al. 2016; Goolsby et al. 2018).

In several ways the current study extends prior research. First and foremost, we investigated the association between alliance and outcomes of parenting support in typical care: home-based services provided to individual families without the opportunity to rely on evidence-based intervention programs. As a result, our findings can be generalized with some confidence to everyday clinical practice in youth care settings. Second, in contrast to previous studies, alliance was assessed at multiple time points, enabling us to provide information on the predictive value of early alliance and alliance change for parenting support outcomes. Finally, this study was the first in home-based care to rely on multiple informants for all alliance and outcome measures. Consequently, it offers insight in parent and professional thoughts on alliance and outcomes and we were able to address the issue of shared-method variance when investigating the alliance-outcome association.

Notwithstanding these strengths, a few limitations of the study warrant attention. First, although the current sample likely reflects the diversity of clients, service content and duration of typical home-based parenting support, we were only partly able to assess and control for these aspects. As a result, we were not able to fully characterize the sample and provided care; it remains unclear whether any factors not captured in this study (e.g., problem level, intervention characteristics) might have affected the alliance-outcome association. Second, our study design does not allow definite conclusions regarding the temporal sequence and mutual influence of alliance and outcome variables. Although we assessed alliance prior to outcome and thereby indicated that alliance was predictive of later care outcomes, this does not rule out the possibility that early levels of satisfaction and change in functioning impacted early alliance and alliance change (McLeod and Weisz 2005). Also, the retrospective assessments of satisfaction with care and experienced change in parent functioning might have been confounded by alliance. Third, while we used psychometrically sound outcome measures that are being used in clinical practice, the retrospective and global assessment of change in parent

functioning does not fully capture the change in this complex and multifaceted dimension. Finally, although the primary caregiver participated in this study, this focus does not provide insight in the specific dynamics (i.e., involving multiple client-professional and within family alliances) of working with families (Friedlander and Escudero 2017; Friedlander et al. 2011).

Implications for future research and clinical practice are indicated by both the findings and limitations of this study. Since this is, to our knowledge, the first study that investigated the alliance-outcome association in home-based parenting support in youth care settings, replication of these findings is important. Future studies should also capture developmental trajectories of alliance and its interplay with client, professional, interactional, contextual, and intervention factors over the course of provided services. For these studies it is important to assess the alliance at least three times, to employ systemic models and measures to capture alliance dimensions specific to working with families (e.g., see Friedlander and Escudero 2017), and to use more specific and extensive measures to assess parent functioning that have demonstrated score reliability for the current sample. Furthermore, given the strong predictive value of early parent-professional alliance and the finding that alliance was relatively stable over time, it is crucial to identify factors that influence the strength of early alliances (e.g., mandated versus voluntary service involvement). Proposed research directions will serve efforts of professionals, educators and policy makers to strengthen the alliance. In anticipation of new findings, current findings indicating that a strong parent-professional alliance represents a key process ingredient predicting outcomes, need to guide professional behavior and education of current and future professionals. It may be helpful for professionals to be aware of the role that the alliance may play in promoting positive outcomes when working with parents. This includes helping professionals realize that a common understanding between professionals and parents of goals, tasks, and the emotional bond is not self-evident. It thus may be useful to monitor the alliance, ask for alliance feedback, and address cases with low or decreasing levels of parent- or professional-reported alliance in everyday clinical practice. Finally, future studies and clinical practice may benefit from incorporating observational measures, such as the Therapy Process Observational Coding System for Child Psychotherapy-Alliance Scale (TPOCS-A; McLeod and Weisz 2005) or the System for Observing Family Therapy Alliances (SOFTA; Friedlander et al. 2006). Observations do not only add a more objective perspective to clients' and professionals' own, often hardly related alliance reports, it also provides professionals with the opportunity to reflect on alliance strength and identify potential improvements of alliance and alliance skills.

To conclude, the present study highlights the need for developing and maintaining strong parent-professional alliances in home-based parenting support. Furthermore, it emphasizes the importance of future studies to investigate precursors of strong alliances and optimizing professionals' alliance building strategies. Together, these studies and improvement efforts have the potential to improve outcomes for parents and children involved in youth care.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual parents included in the study. Directors of participating organizations provided active consent for their organization to participate in the study and organized active participation of professionals providing home-based parenting support.

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