The downside up? A study of factors associated with a successful course of treatment for adolescents in secure residential care

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CHAPTER 4
A SECURE BASE? THE ADOLESCENT-STAFF RELATIONSHIP IN SECURE RESIDENTIAL YOUTH CARE

"Op een gegeven moment is er een 'klik' en dan gaat het goed"
["At a certain point there is a 'click' and then it goes well"]
(A group care worker about the contact with adolescents in secure residential care)

Abstract

The client-staff relationship seems to be particularly important in secure residential youth care, in which adolescents with mainly externalizing behavior problems are often placed compulsory. The present study aims to assess the client-staff relationship for a group of 135 adolescents in secure residential care, and factors associated with a positive relationship. The results show that adolescents, group care workers and teachers experience a limited affective bond in their relationship two months after the adolescents' admission. Adolescents do tend to use care workers and teachers as a secure attachment figure, which suggests that an affective bond is no precondition for the adolescents to experience staff as a secure base. Main predictors of a good relationship are the positive treatment skills of both group care workers and teachers. These findings point to the need for training of care workers and teachers so that they are better prepared for working with these adolescents.

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4.1 Introduction

An important contributing factor to outcomes of mental health care is the relationship between clients and their therapists (Karver et al., 2006). This relationship is most commonly defined as an emotional connection (e.g. affective attachment, affective bond, social support) and/or a cognitive connection in terms of agreement on the tasks and goals of therapy (Karver et al., 2005). Important client factors influencing the relationship are for example the client's motivation for and expectations of the treatment (Karver et al., 2005; Karver et al., 2008). Important therapist factors related to the client-therapist relationship are for example a client-centered attitude, communication- and listening skills and self reflection (Ackerman & Hilsenroth, 2003).

The relationship between clients and therapists seems to be especially important in the context of child and youth care, because child and adolescent clients typically are not self-referred and often enter into treatment unaware of their problems, resistant to change, and/or in conflict with their parents (Karver et al., 2006; Shirk & Karver, 2003). Particularly in a secure residential care context, in which adolescents are usually placed under coercion and receive care and treatment in a secured environment, the relationship between clients and therapists seems to be important because the clients often show a lack of motivation for treatment (cf. Cunningham, Duffee, Huang, Steinke, & Naccarato, 2009). Moreover, previous research indicates that there is a strong association between the quality of the client-therapist relationship and treatment outcomes for young people with externalizing problems (Shirk & Karver, 2003); a group that is often prominently represented in secure residential care (Bullock, Hosie, Little, & Millham, 1990).

In residential care, group care workers represent the most important and influential discipline because they have interactions with the young people on a daily basis (Knorth et al., 2010). Also teachers seem to have an important role in this context, although few studies have focused on the education of young people in (secure) residential care (cf. Foley, 2001; Jackson, 1994). Especially for young people with antisocial behavior, the quality of the teacher-student relationship seems to be an important factor in connection to outcomes (Meehan et al., 2003). Therefore, the client-therapist relationship within (secure) residential care can be defined as the relationship between group care workers and adolescents, as well as between teachers and adolescents. This relationship between group care workers, teachers and adolescents can be considered as a key factor in successful residential care and educational practice (Knorth et al., 2010).

We are not aware of studies investigating the relationship between teachers and adolescents in secure residential care. The relationship between care workers and adolescents has been the focus in a few empirical studies. In the Netherlands,

Schuengel (2002) found that incarcerated adolescents did not seem to use their mentor (i.e., the most important group care worker for the adolescent) as a secure attachment figure. However, there did seem to be an affective bond between the adolescents and care workers, which was also the only relationship aspect that showed a significant increase for those young people who did not switch between residential groups and mentors during their stay in the center (Schuengel, 2002).

While focusing on the same center, Zegers, Schuengel, Van IJzendoorn and Janssens (2006) have found that more securely attached adolescents more often used the care workers as a secure base and less often avoided contact with care workers compared to less securely attached adolescents. The more securely attached adolescents also perceived more securely attached care workers increasingly as being available as a secure base.

Besides the adolescent's attachment styles, studies also focused on their problems in association with the client-staff relationship. Studies in a residential care context show that adolescents with negative expectations and with high levels of interpersonal problems tend to show poorer relationship development than those with positive help-seeking expectancies and with fewer relationship problems (Colson et al., 1991; Eltz et al., 1995). Results of studies focusing on secure residential care indicate that the establishment of a positive relationship is problematic for youth with psychopathological problems (Van Binsbergen, 2003) and for those showing severely delinquent behavior and deviant peer relations (Florsheim et al., 2000).

Some studies have looked at care process factors that are associated with the client-staff relationship in secure residential care. Zegers (2007) showed that adolescents who experienced high emotional and social support from group care workers showed a decrease in delinquent incidents during care, while adolescents who perceived low support showed an increase of incidents. Furthermore, results of Holmqvist et al. (2007) show that the affective aspect of the relationship (i.e., warm and close feelings towards each other) has a more ambiguous relation to outcome in terms of delinquency than the collaborative aspect. Therefore, Holmqvist et al. (2007) concluded that adolescents, or more specifically the boys in their sample, seem to prefer staff with a clear focus on work or tasks rather than staff without such a clear focus.

Florsheim et al. (2000) found that staff and delinquent boys in residential care had very different ideas about the nature and relevance of their relationship in terms of a working alliance, including both the agreement on and investment in treatment goals and the degree of mutual trust, acceptance, and confidence between the boys and the boys' primary program staff person. Since consensus between clients and staff can be considered as an important success factor for treatment (cf. Karver et al., 2005), these findings suggest that subsequent attention should be paid to this client-staff relationship aspect in residential youth care. Furthermore, Florsheim et al. (2000)

unexpectedly found that a positive working alliance assessed early in treatment (i.e., between the third and fourth week of treatment) was not associated with treatment progress. This suggests that the *development* of the relationship *over time* seems to be of more importance for obtaining positive outcomes than the absolute value of the relationship between youth and staff shortly after admission.

Despite its relevance and potential importance for successful outcomes, little is known about the quality of relationships between adolescents and care workers, and adolescents and teachers in secure residential care. Therefore, the aim of the present study is to assess the quality of both these relationships in secure care, and to identify which factors are associated with a positive relationship.

The central questions of this contribution are:
- What is the quality of the relationship between adolescents and group care workers, and adolescents and teachers two months after placement in a secure residential care center?
- Which characteristics of the adolescents (i.e., treatment motivation and behavior problems) and the care workers and teachers (i.e., treatment skills) are associated with a good relationship quality?

Based on findings in previous studies, we formulated the following hypotheses with regard to the questions above:
- Adolescents and staff have different perceptions of their relationship;
- There is an affective bond between adolescents and staff two months after admission, but the adolescents do not use care workers or teachers as secure attachment figures;
- Adolescents who are poorly motivated for treatment or experienced negative shifts between residential groups have less positive relationships than adolescents who are motivated or have made no or positive shifts between groups;
- Care workers and teachers who show more positive communication skills, have better relationships than care workers and teachers with less positive communication skills.

4.2 Method

The present study is part of a research project which focuses on adolescents staying in secure residential center *Het Poortje*, which is located on two sites in the north of the Netherlands. Adolescents from 12 to 23 years old are often coercively placed in the center by either a civil or penal measure. The principal reason for admission is either

intolerably disruptive and antisocial behavior or behavior presenting a danger to the young person him or herself or to the general public. Most of the adolescents only have permission to exit the center under supervision.

An important component of care and treatment are the activities at residential groups consisting of eight to twelve adolescents. Besides the residential groups, the adolescents spent much time in special education classes of eight to ten adolescents at the internal school, where they receive training by teachers. During their stay, each adolescent is assigned to a so-called coach and mentor. The *coach* is one of the care workers of the residential group. The *mentor* is one of the teachers of the adolescent at the internal school. The assignment to care workers and teachers as coach and mentor respectively is unsystematic and mainly based on the order of placement. Both the coach and mentor are responsible for observing the adolescents and are involved in the adolescents' individual treatment planning.

The total research project consisted of a longitudinal design with a measurement at admission (T_1), eight weeks after admission (T_2), at departure (T_3) and one year after departure (T_4). For the present study, information collected with the adolescents, group care workers (i.e., coaches) and teachers (i.e., mentors) at admission (T_1) and eight weeks after (T_2) was used. A group of 186 adolescents that stayed for a minimum period of eight weeks in the center was eligible for inclusion.

4.2.1 Procedure

The adolescents were informed about the research project by the project leader shortly after admission during a private conversation and by an information flyer. To promote their participation in the project, it was emphasized that participation was confidential and that it was a common part of their stay in the center. All the interviews with the adolescents were conducted by trained students of the University of Groningen.

On average 9.6 weeks after admission (T_2), 135 of the 186 adolescents (73%) were interviewed about their relationship with staff. There was no information for 51 adolescents, because 35 adolescents (19%) did not want to participate or dropped out during the interview, 15 adolescents (8%) were not interviewed due to practical problems (e.g., an unexpected transfer to another residential center), and one adolescent did not know who his coach and mentor were.

After these interviews, several adolescents completed questionnaires about care workers' (n = 58, 43%) and teachers' treatment skills (n = 50, 37%). Furthermore, 94 of the 135 adolescents (70%) completed treatment motivation questionnaires on average three weeks after admission. Finally, 87 group care workers (64%) and 93 teachers (69%) completed questionnaires regarding their relationship with the 135

adolescents on average 14.7 and 13.5 weeks after the adolescents' admission respectively.

4.2.2 Instruments

Treatment documents

Information on adolescents' background characteristics at the moment of admission (i.e., demographic and problem characteristics) was collected by using information from treatment documents. Problem characteristics that were described in these documents were categorized in terms of treatment motivation problems (e.g., poor problem awareness), internalizing problems (e.g., symptoms of anxiety), externalizing problems (e.g., aggression) and delinquent behavior. It was dichotomously registered whether these problems were reported or not.

Information on the number and type of shifts in residential groups was collected by using information from the center's administration department. A shift between groups was regarded as positive if the adolescent shifted to a less secured residential group. A negative shift was defined as a trajectory in which the adolescents show one or more relapses into a more secured residential group.

Motivation for treatment questionnaire

The Motivation for Treatment Questionnaire (MTQ, Van Binsbergen, 2003) aims to assess the first three stages of treatment motivation (i.e., precontemplation, contemplation and preparation) that are distinguished by Prochaska and DiClemente (1984). We used a short 17-item version of the questionnaire based on outcomes of factor-analysis conducted by Van Binsbergen (2003). The items of the MTQ (e.g., "I am here only because others think it is necessary") contain a 3-point rating scale ranging from 0 (not true) to 2 (true). We calculated a total motivation score based on the subscale scores by weighing the scores on the stages of motivation as one, two and three respectively, resulting in a range of scores from 0 (not motivated) to 12 (motivated). For the present sample, the reliability of the first and third subscales was acceptable (α = .67 - .77), but relatively low for the second subscale (α = .58).

Treatment skills questionnaire

Treatment skills of group care workers and teachers were measured with the B-test questionnaire (Van Erve, Poiesz, & Veerman, 2007). The B-test – of which the B refers to the first letter of the Dutch word for treatment: Bejegening – consists of 24 items (e.g., "my coach is honest") with a 6-point Likert scale ranging from 1 (very poor) to 6 (very good). The 24 items can be divided in the following eight categories of

professional treatment skills: 1) clarity (six items); 2) commitment (four items); 3) standing besides, instead of above the client (four items); 4) reliability (two items); 5) fitting in with the client (two items); 6) being respectful to the client (two items); 7) taking care of a good contact (two items); and 8) giving positive feedback (two items). Besides these categories, a total score can be calculated on the basis of all the items. For the present sample, good reliability was found for both the care worker (α = .77 - .92) and teacher (α = .79 - .92) scales.

Relationship interview and questionnaire

The Psychological Availability and Reliance on Adult (PARA) questionnaire (Schuengel & Zegers, 2003) assesses the adolescent-adult relationship. It consists of two parallel versions (an adolescent and adult version) and contains 19 items (e.g., "you go to your mentor for support and advice") with a 4-point Likert scale ranging from 1 (disagree) to 4 (agree). The PARA comprises three subscales, namely 1) the psychological availability (PA) of adults for young people (six items); 2) the extent to which the adolescent rely on adults (RA) as a secure base (seven items); and 3) the experienced affective bond (AB) between adolescents and adults (six items). Furthermore, the mean of the total scores on the PA and RA subscales constitutes a security subscale.

The psychological availability (PA) scale gives an indication about whether the staff members are there for the adolescents when they need them or, put in another way, whether they are available and constitute a secure base for the adolescents. The reliance on adult (RA) scale assesses whether the adolescents approach their coach or mentor when they need help or support, which indicates if the adolescents see themselves using staff as a secure base. The affective bond scale assesses whether the adolescents feel attached to the staff members. We also calculated a total mean score for an overall indication of the quality of the relationship. In accordance to Schuengel and Zegers (2003), we assume that scale scores lower than 2,5 indicate that the adolescent or staff do not subscribe the viewpoint regarding the relationship, and that scores above 2,5 do so. We found satisfactory reliability scores for the adolescent (α = .86 - .91) and adult scales (α = .70 - .89) for the present sample.

4.2.3 Participants

Since we had no background data on staff, only characteristics of the adolescents are shown in Table 4.1.

Table 4.1
Characteristics of the adolescent sample

Characteristics	Adolescents (*N* = 135)		
	M	*SD*	*range*
Age at admission	16.0	1.44	11.6 - 20.0
Length of stay (in months)[a]	7.4	5.30	1.9 - 25.9
Number of residential groups during stay	1.5	0.75	1 - 6
	N	*%*	
Sex (male)	90	66.7	
Ethnicity (Dutch origin)	85	63.0	
Measure of placement (civil)	102	75.6	
Place of origin (regional; close by the center) [a]	62	48.1	
Living arrangement prior to admission[b]			
At home with (one of the) parents	64	48.5	
Residential setting (including secure care)	44	33.3	
With family (including foster parents)	17	12.9	
Living with friends or independent	5	3.8	
Homeless/ instable situation	2	1.5	
Care history before admission[c]	120	91.6	
Reported motivational problems (probably or yes)	65	58.2	
Externalising behavior problems[d]	113	84.3	
Internalising behavior problems[d]	49	36.6	
Prior delinquent behavior[a]	89	69.0	

[a]*n* = 129. [b]*n* = 132. [c]*n* = 131. [d]*n* = 134.

To examine possible attrition bias, we looked at differences between the participant group of 135 adolescents, the 35 "refusers" and the 16 adolescents that did not participate due to practical problems. The 35 refusers were significantly older at admission than the 135 participants, $U = 1688.00$, $r = -.20$, and the "practical problem group" stayed significantly shorter in the center than the participants, $U = 326.00$, $r = -.37$, and refusers, $U = 101.50$, $r = -.51$. Chi-square comparisons on the dichotomous characteristics showed no significant differences between the groups, although there was a trend for the refusers to show delinquent and externalizing behavior and for the practical problem group to show motivational and internalizing problems more often than the other groups. This indicates that the refusers and practical problem group might be somewhat more problematic than the participant group.

4.2.4 Data analysis

The differences in perceptions on their relationship of the adolescents and staff will be analyzed by calculating an agreement index, which is computed by correlating the item responses of the adolescents with the item responses of both the group workers and teachers. The threshold for significance in these analyses was set at $\alpha \leq .05$.

To determine which factors were associated ($\alpha \leq .10$) with the quality of the client-staff relationship, we first conducted univariate analyses on associations

between potential predictors and the adolescent-staff relationship. After that, factors that were associated with the quality of the relationship were entered as predictors in a multiple regression analysis. We applied a forced entry method (Field, 2009) to explain which predictors account for the relationship quality.

4.3 Results

The perceptions of the adolescents, group care workers (i.e., coaches) and teachers (i.e., mentors) about their relationship are shown in Table 4.2.

Table 4.2
Relationship experienced by adolescents, group care workers and teachers

Relationship aspects	Adolescent-care worker (*N* = 135)		Care worker-adolescent (*N* = 87)		Adolescent-teacher (*N* = 125)		Teacher-adolescent (*N* = 93)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Psychological availability	3.18	0.87	3.50	0.39	2.84[a]	0.90	3.36	0.58
Reliance on adult	2.75[b]	0.89	2.86	0.52	2.36	0.86	2.52	0.63
Experienced security	*2.97*	*0.84*	*3.18*	*0.37*	*2.61*	*0.82*	*2.94*	*0.50*
Affective bond	2.38	0.78	2.43	0.60	2.14	0.71	2.21	0.63

Note. Scores range from 1 (disagree) to 4 (agree). The *experienced security* scores are the mean scores of both the *psychological availability* scale and the *reliance on adult* scale. The adolescent-care worker and adolescent-teacher columns apply to the relationship as perceived by the adolescents. The care worker- and teacher-adolescent relationship is the relationship as perceived by group care workers and teachers respectively.
[a]*n* = 124. [b]*n* = 134.

Table 4.2 shows that adolescents and care workers tend to perceive their relationship as more secure and affective than the adolescents and teachers. This difference is significant for both the experienced security, $t(124) = 4.28$, $p = .000$, 95% CI [0.20, 0.54], $r = .36$, including psychological availability and the reliance on adult, and the affective bond, $t(123) = 2.99$, $p = .003$, 95% CI [0.08, 0.38], $r = .26$, reported by the young people. Group care workers also report significantly more security in their relationship with the adolescents than teachers, $t(65) = 3.08$, $p = .003$, 95% CI [0.08, 0.36], $r = .36$, but there is no significant difference in the reported affective bond. For both the adolescent-group care worker and adolescent-teacher relationship a limited affective bond is reported. This affective bond is rated significantly lower than the experienced security in the relationship for both the adolescents with regard to group care workers, $t(133) = 12.0$, $p = .000$, 95% CI [0.49, 0.68], $r = .72$, and teachers, $t(124) = 8.68$, $p = .000$, 95% CI [0.36, 0.57], $r = .61$, and for care workers, $t(86) = 14.6$, $p = .000$, 95% CI [0.64, 0.84], $r = .84$, and teachers, $t(92) = 14.6$, $p = .000$, 95% CI [0.63, 0.83], $r = .84$, with regard to the adolescents.

Correlation analysis shows a significant association between the perception of the adolescents and group care workers with regard to the reliance on adult scale (r_s = .38, p = .000) and the affective bond scale (r_s = .30, p = .005). We did not find significant associations for the adolescent-teacher relationship, which indicates that there are mainly differences in the perception of the relationship between adolescents and teachers.

In exploring the univariate associations of client and care factors with the adolescent-staff relationship, several significant relationships emerge (see Table 4.3).

Table 4.3
Univariate analyses results between covariates and the adolescent-staff relationship

	Adolescent-care worker (N = 135)		Care worker-adolescent (N = 87)		Adolescent-teacher (N = 125)		Teacher-adolescent (N = 93)	
Variable	z	r_s	z / t	r	z	r_s	z / t	r
Age at admission	0.51	.04	-0.36	-.04	-0.31	-.03	1.56	.16
Length of stay in center (months)	-0.60[a]	-.05	1.50	.16	-2.35[b]	-.22*	-0.55[c]	-.06
Sex (male/female)	-0.50	-.04	0.63	.07	-0.05	-.01	-0.95	-.10
Ethnicity (Dutch/non-Dutch)	-0.01	-.00	0.70	.08	-0.09	-.01	-0.55	-.06
Placement measure (penal/civil)	-1.15	-.10	-1.53	-.16	-0.07	-.01	-1.08	-.11
Place of origin (regional or not)	-0.88[a]	.08	-1.17[d]	-.13	-0.16[e]	-.01	-0.55[c]	-.06
Living with parents before admission (y/n)	-1.53[f]	-.13	<-0.1[g]	-.00	-1.55[e]	-.14	-1.21[h]	-.13
Care history (y/n)	-0.46[i]	-.04	-0.85[g]	-.09	-0.45[e]	-.04	0.19[j]	.02
Reported motivation problems (y/n)	-2.08	-.18*	-2.23	-.24*	-0.33	-.03	-0.48	-.05
Internalizing problems (y/n)	-1.57[l]	-.14	-1.02[g]	-.11	-1.69[m]	-.15†	-0.60[k]	-.06
Externalizing problems (y/n)	-0.31[f]	-.00	-1.12[g]	-.12	-0.87[g]	-.08	-0.13[k]	-.01
Prior delinquent behavior (y/n)	-0.19[a]	-.02	-1.85	-.20†	-1.37[e]	-.12	-0.31[c]	-.03
Motivation for treatment	2.22[n]	.23*	0.67[o]	.09	0.73[g]	.08	1.08[p]	.14
Negative shifts between groups	-1.06	-.09	0.88	.09	-.14	-.01	1.86	.19
Treatment skills coach/mentor	4.63[q]	.55***	1.00[r]	.17	4.52[s]	.59***	-0.66[t]	-.12

Note. CI = Confidence Interval. The relationship columns represent the same as in Table 4.2. Associations for the adolescent-care worker and -teacher relationship have been calculated by using Spearman's correlation coefficient and the Mann-Whitney test. For the care worker- and teacher-adolescent relationship Pearson's coefficients and t-tests were used, except for the placement measure for which the Mann-Whitney test was used.
[a]n = 129. [b]n = 119. [c]n = 90. [d]n = 85. [e]n = 122. [f]n = 132. [g]n = 86. [h]n = 91. [i]n = 131. [j]n = 89. [k]n = 92. [l]n = 134. [m]n = 124. [n]n = 94. [o]n = 63. [p]n = 64. [q]n = 58. [r]n = 37. [s]n = 47. [t]n = 33.
†$p \leq .10$. *$p \leq .05$. ***$p \leq .001$.

The univariate analyses show that adolescents for whom motivational problems are reported in the treatment documents are significantly, but moderately more likely to have a poorer relationship with care workers, and vice versa, than adolescents without motivational problems. Adolescents who report a better motivation for treatment also report a significantly and moderately better relationship with care

workers than adolescents reporting a poor motivation for treatment. Univariate analyses regarding the adolescent-teacher relationship show that a longer length of stay is significantly, but moderately associated with a poorer quality of the relationship according to the adolescents. Results from the adolescent's perspective also indicate that internalizing behavior problems are moderately associated with a better quality of the relationship with teachers. Furthermore, positive treatment skills of both group care workers and teachers are strongly associated with a better relationship according to the adolescents. Analyses from the staffs' perspective show that motivational problems and delinquent behavior reported in treatment documents are moderately associated with a poorer relationship as perceived by group care workers.

On the basis of these univariate analyses, we conducted multiple regression analyses (Table 4.4). Because none of the variables in Table 4.3 were associated with the relationship as perceived by the teachers, no regression model was constructed for the teacher-adolescent relationship.

Table 4.4
Multiple regression analysis for the relationship perceived by adolescents and staff

Predictor	*B*	*SE B*	*β*	*95% CI B*
Model 1		Adolescent-care worker[a]		
Constant	0.91	0.42		[0.07, 1.74]
Treatment skills care worker	0.02	<0.01	.60***	[0.01, 0.02]
Motivation for treatment	0.03	0.04	.08	[-0.05, 0.11]
Reported motivation problems (y/n)	-0.22	0.17	-.15	[-0.56, 0.11]
Model 2				
Constant	0.85	0.34		[0.16, 1.54]
Treatment skills care worker	0.02	<0.01	.62***	[0.01, 0.02]
Model 1		Adolescent-teacher[b]		
Constant	0.87	0.42		[0.03, 1.72]
Treatment skills teacher	0.02	<0.01	.59***	[0.01, 0.02]
Length of stay	-0.02	0.01	-.18	[-0.05, 0.01]
Internalizing behavior (y/n)	-0.27	0.18	-.02	[-0.38, 0.33]
Model 2				
Constant	0.58	0.36		[-0.14, 1.29]
Treatment skills teacher	0.02	<0.01	.63***	[0.01, 0.02]
		Care worker-adolescent[c]		
Constant	2.75	0.08		
Reported motivation problems (y/n)	0.17	0.09	.21	[-0.01, 0.34]
Prior delinquent behavior (y/n)	0.14	0.09	.16	[-0.05, 0.33]

Note. SE = Standard Error. *CI* = Confidence Interval.
[a]Model 1: $n = 52$. $R^2 = .45$, $p = < .001$. Model 2: $n = 58$. $R^2 = .39$, $p = < .001$.
[b]Model 1: $n = 44$. $R^2 = .42$, $p = < .001$. Model 2: $n = 47$. $R^2 = .40$, $p = < .001$.
[c]$n = 87$. $R^2 = .08$, $p = .031$.
***$p \leq .001$.

The regression models show that the treatment skills of staff are the main significant predictors for both the adolescent-care worker and -teacher relationship quality. Treatment skills predict 39 and 40% of the variance in the adolescent-care worker and -teacher relationship scores respectively. Although the models appear to be accurate for the sample, there are indications that both adolescent-staff models might have violated the assumption of homoscedasticity. Therefore, these results cannot be generalized beyond this sample. The results for the care worker-adolescent relationship show that neither motivational problems nor delinquent behavior of the adolescents is a significant predictor.

Since perceived treatment skills of staff are important predictors regarding the client-staff relationship, we carried out additional analyses between separate treatment skills and relationships to gain insight in the associations (see Table 4.5).

Table 4.5
Correlations between perceived treatment skills and the adolescent-staff relationship

Type of skill	Adolescent-care worker (*n*=58)			Care worker-adolescent (*n*=37)			Adolescent-teacher (*n*=47)			Teacher-adolescent (*n*=33)		
	Tot	ES	AB	Tot	ES	AB	Tot	ES	AB	Tot	ES	AB
Is clear	.56***	.64***	.43[a]***	.18	.07	.36*	.59***	.64***	.34**	-.17	-.22	-.09
Shows commit-ment	.63***	.65***	.53[a]***	.38*	.29	.45**	.56***	.59***	.41**	-.08	-.16	.06
Stands besides client	.39[a]**	.39[a]**	.39[a]**	.07[b]	.02[b]	.20[b]	.55***	.58***	.37*	-.10	-.14	-.03
Is reliable	.69***	.69***	.68[a]***	.25	.14	.42**	.45***	.46***	.27	-.08	-.14	.01
Fits in with client	.59***	.62***	.49[a]***	.19	.12	.34*	.56***	.59***	.33*	-.08	-.15	.01
Is respect-ful to client	.65***	.68***	.58[a]***	.20	.18	.26	.49***	.48***	.34*	-.10	-.17	-.05
Takes care of good contact	.54***	.57***	.53[a]***	.27	.15	.46**	.55***	.60***	.32*	-.13	-.22	-.05
Gives positive feedback	.56***	.64***	.43[a]***	.21	.16	.29	.53***	.58***	.21	.07	.02	.07

Note. Tot = total mean score for an overall indication of the quality of the relationship. ES = Experienced Security. AB = Affective Bond. Associations have been calculated by using Spearman's correlation coefficients.
[a]$n = 57$. [b]$n = 36$.
*$p \leq .05$. ** $p \leq .01$. *** $p \leq .001$.

According to the adolescents, all the treatment skills are highly relevant in association with the relationship with both care workers and teachers. However, according to group care workers only commitment is quite strongly associated with a positive relationship. Care workers also perceive clearness, reliability, fitting in with the client

and taking care of good contact as moderately to quite strongly as associated with a positive affective bond. According to teachers none of the skills is associated with the relationship.

4.4 Conclusion

Aim of this study was to assess the quality of the relationship between adolescents and staff in secure residential care, and to identify which factors are associated with a good or poor quality of this relationship. The results indicate that adolescents, group care workers and teachers experience a limited affective bond in their relationship two months after the adolescents' admission to secure residential care. This is in contrast with our expectations and inconsistent with findings from Schuengel (2002). A possible explanation for the poor affective bond might be the fact that the information about the relationship is collected too shortly after admission. For example, Schuengel (2002) found that the affective bond between adolescents and care workers increased during the course of stay in secure residential care. It is likely that the adolescents were suspicious of staff members shortly after their admission, because of the compulsory placement in the center and their history of care experiences.

The finding that adolescents do tend to use group care workers and teachers as a secure attachment figure is consistent with findings from Zegers (2007) and seems to indicate that an affective bond is no precondition for the adolescents to experience staff as a secure base. It corresponds with results of Holmqvist et al. (2007) showing that the collaborative aspect between care workers and boys in residential care had more clear implications for treatment success than the mutual, affective bond. They concluded that the optimal staff attitude seems to consist of limited emotional involvement and a clear focus on the work (Holmqvist et al., 2007). Moreover, a study by Scholte and Van der Ploeg (2000) showed that moderate levels of emotional support and structure were optimal for positive development of adolescents in residential care. The provision of a basic therapeutic climate of firm, but not harsh, control in combination with consistent, but non-obtrusive, emotional support was a major factor in promoting healthy development among the young people with behavioral difficulties. Also in an educational context, the experience of a secure, stabile and supporting environment is important for good educational performance of young people in (residential) child and youth care (Harker, Dobel-Ober, Lawrence, Berridge, & Sinclair, 2003; Martin & Jackson, 2002).

A second main finding is that adolescents and group care workers mainly have similar perceptions of their relationship, while adolescents and teachers have different perceptions. This is partly consistent with our expectations, since we expected differences for both care workers and teachers. It is inconsistent with results

from other studies that adolescents and staff have different ideas about their relationship, although these studies are more focused on goals and tasks in the relationship (Bickman et al., 2004; Florsheim et al., 2000) rather than the affective aspects of the relationship in the present study. Holmqvist et al. (2007) found, however, that the boys and staff in their sample had different perceptions of their affective bond and similar perceptions of their collaborative alliance.

Another relationship difference between group care workers and teachers that appeared is that adolescents and group care workers tend to perceive their relationship as more secure and affective than the adolescents and teachers. The differences in these relationships might be explained by the different roles group care workers and teachers have. It might be that the teachers were mainly focused on building a working relationship with the adolescents, rather than building a secure and affective relationship. Research on the education of young people in care shows, however, that teachers are not only mentioned for study-specific support, but also often as providers of emotional support (Harker et al., 2003). Recent research also indicates that teachers experience several barriers to providing good quality education for youth in secure residential care, such as problems in coping with the poor academic motivation and problem behavior of the young people in class (Houchins, Puckett-Patterson, Crosby, Shippen, & Jolivette, 2009), which might have played a role and influenced the relationship in a negative way.

Not consistent with our expectations is the finding that adolescents who experienced negative shifts between residential groups had the same quality relationships as adolescents who had experienced no or positive shifts between groups. It is inconsistent with previous results of Schuengel (2002) that the affective bond of adolescents with care workers significantly increased for those who did not switch between living groups and mentors during their stay in the center. However, the present study did not focus at the development of the relationship over time, but at the relationship at one moment after admission. It might be more important to look at the development of the relationship, rather than de quality of the relationship at one point in time during the residential care process (Florsheim et al., 2000; Hogue et al., 2006), especially with regard to the experience of shifts or changes during residential care.

The most important predictors of a good quality relationship are positive treatment skills of both group care workers and teachers. A good self-reported treatment motivation by the adolescents and the absence of motivational problems according to treatment documents are also associated with a positive relationship as perceived by adolescents and group care workers, although these associations are less strong than for the treatment skills. Both these findings are consistent with our expectations. The adolescents perceive the reliability of group care workers and the clarity of teachers as the most important in the relationship. The relatively importance of therapists' characteristics is also found in other studies, which indicate that these

are more important for relationship building than client factors (Baldwin, Wampold, & Imel, 2007).

A limitation of the present study is that we mainly looked at the affective aspect of the relationship and not explicitly looked at the collaborative aspect of care, while there are indications that this might be important especially for adolescents in secure residential care (cf. Holmqvist et al., 2007). Other instruments, such as the Working Alliance Inventory (Horvath & Greenberg, 1986), might therefore be more appropriate and relevant for use with adolescents in secure residential care.

Secondly, there were indications that both the adolescent-group care worker and -teacher relationship regression model might have violated the assumption of homoscedasticity. Since we applied this analysis for a relatively small sample, there was a poor statistical power. In line with this is the notion that the adolescents who participated in the present study seemed to be somewhat less problematic than adolescents who refused or could not participate. Therefore, some results may not generalize to adolescents beyond the sample in the present study (Field, 2009; Kazdin, 2003).

A third limitation is that the adolescents in secure residential care have to deal with a team of different care workers which make it difficult to study interpersonal processes. In the present study, we focused on the relationship between adolescents and their coach and mentor, which represent the relationship with only one of the care workers and teachers that work with these adolescents on a day-to-day basis. It is likely that there are a number of client-staff relationships active at any one time, which may shift as the admission progresses (Kroll & Green, 1997). Furthermore, the peer group in care can obstruct the formation of alliances with staff, as is indicated by the study of Florsheim et al. (2000). In this respect, Schuengel and Van IJzendoorn (2001) note that this can be "a strong warning against overly optimistic expectations regarding the effect of close mentor relationships with young people compared with the influence of the peer group" (p. 312-313, see also Emond, 2004). Future research should take these factors into account in studying relationships in (secure) residential care.

Despite several limitations, our findings show that adolescents tend to use group care workers and teachers as a secure base in an early stage of secure residential care. The results emphasize the importance of the client-staff relationship and the necessity of paying attention to the relationship early in treatment. In building a positive relationship with adolescents who often show serious emotional and behavioral difficulties, a good balance between empathy and emotional support on the one hand and collaboration focusing on the tasks and goals of treatment on the other seems to be an important success factor. Therefore, support in terms of training and

supervision of those who provide day-to-day guidance to the young people, i.e., group care workers and teachers, is desirable so that they will be better prepared for working with these adolescents by appropriate treatment skills.