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## The role of family and peer relations in adolescent antisocial behaviour: comparison of four ethnic groups

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### Abstract

The dominant theories about the development of antisocial behaviour during adolescence are based almost entirely on research conducted with mainstream, white, middle-class adolescents. The present study addresses this significant gap in the literature by examining whether the same model of family and peer influence on antisocial behaviour is applicable to adolescents belonging to different ethnic groups. The sample included 603 adolescents (318 females and 285 males) from four ethnic groups: 68% of adolescents were Dutch, 11% were Moroccan, 13% were Turkish and 8% were Surinamese. The questionnaires assessing antisocial behaviour, quality of parent–adolescent relationship and involvement with deviant peers were completed by adolescents individually at schools. Results show few ethnic differences in the mean level of the assessed constructs: adolescents from different ethnic groups show similar levels of antisocial behaviour, are to a similar degree satisfied with their relationships with parents, disclose as much information to them, and do not differ in their involvement with deviant peers. However, the associations of parent and peer relations with antisocial behaviour differed across the ethnic groups.

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## **Introduction**

In research on developmental psychopathology, and in clinical work, the child's family is frequently considered the most important factor in the development of antisocial behaviour. Empirical studies have identified a wide range of family factors, including low socioeconomic status, living in a single parent family, marital discord, etc., as consistent covariates of such problems during adolescence (see for reviews [Dishion, French, & Patterson, 1995](#); [Lahey, Waldman, & McBurnett, 1999](#)). Among these factors, it appears from recent studies that the quality of the parent–adolescent relationship, a factor that is most proximal to adolescent's everyday experience, bears an especially strong association to antisocial behaviour ([Vitaro, Brendgen, & Tremblay, 2000](#); [Bird et al., 2001](#); [Deković, Janssens, & van As, 2003](#)).

The quality of the parent–adolescent relationship is a broad construct that refers to an emotional climate or “atmosphere” in the relationship between the parent and the adolescent. As such, the quality of the relationship is seen as a fundamental aspect of the relationship and as the context in which interactions between the parent and adolescent take place (see also [Darling & Steinberg, 1993](#); [Dishion et al., 1995](#)). Research findings indicate that a negative relationship quality (i.e. a high level of conflict and a low level of emotional bonding) between adolescents and parents is related to higher levels of externalizing problem behaviour ([Deković, 1999](#)). Similarly, [Snyder and Huntley \(1990\)](#) report that the relationship between antisocial adolescents and their parents appears to be characterized by a lack of intimacy, a lack of mutuality, and more blaming, anger, and defensiveness than in normal families. When the parent–adolescent relationship is characterized by negativity, adolescents are probably less likely to internalize parental values and norms. Because parents provide support for conventional behaviour and sanctions against conduct problems, a positive relationship with parents may function as a protection against antisocial behaviour and delinquency.

Moreover, adolescents who have a positive relationship with their parents are more likely to communicate with their parents, to tell them about their daily activities, and to disclose to them their thoughts and feelings. Recent findings ([Kerr & Stattin, 2000](#); [Stattin & Kerr, 2000](#)) have shown that adolescent disclosure was the strongest predictor of parental knowledge about their adolescent's whereabouts, and parental knowledge has been consistently linked to a low level of antisocial behaviour (for a review see [Dishion & McMahon, 1998](#); for empirical examples see [Dishion, Patterson, Stoolmiller, & Skinner, 1991](#); [Jacobson & Crockett, 2000](#)). Therefore, adolescent openness and communicativeness towards their parents seem to be closely related to involvement in antisocial behaviour. Indeed, poor communication with parents appeared to be an important predictor of adolescent delinquency ([Cernkovich & Giordano, 1987](#)), whereas higher levels of adolescent disclosure were found to correspond to lower levels of norm breaking ([Stattin & Kerr, 2000](#)) and delinquency ([Kerr & Stattin, 2000](#)).

The determinants of problem behaviour are not limited to the family. As children approach adolescence, they spend increasing amounts of time with their peers without adult supervision ([Mounts & Steinberg, 1995](#)) and peers become the most important reference group for adolescents ([Hartup, 1999](#)). An aspect of peer relations that has emerged as the most prominent predictor of several kinds of problem behaviour is the association with deviant peers. Research findings showed that adolescents who are involved with deviant peers exhibit more norm-breaking behaviour ([Brendgen, Vitaro, & Bukowski, 2000](#)), more substance use ([Aseltine, 1995](#)), more

school problems (Berndt & Keefe, 1995), and more antisocial behaviour in general (Dishion et al, 1991). An explanation offered for these findings (Dishion, Andrews, & Crosby, 1995) is that deviant peers provide opportunities to engage in antisocial behaviour and supply the adolescents with attitudes, motivation, and rationalization to support such behaviour. In addition, exposure to deviant peers may foster antisocial behaviour through positive reinforcement and through modelling of new types of problem behaviour.

In sum, both the family and peers play major roles in explanations of adolescent antisocial behaviour. Research findings up to now seem to support the model of family and peer influence presuming that a negative, conflictual parent–adolescent relationship contributes to adolescents' problem behaviour directly as well as indirectly through deviant peer associations (Kim, Hetherington, & Reiss, 1999). However, the dominant theories about the nature and impact of these relationships are based almost entirely on studies conducted with white, Western, middle-class adolescents from the dominant culture. The generalizability of this model to members of different ethnic groups needs to be tested. Besides providing information about the generalizability of a theory, it is important to answer the question about the appropriateness of interventions for minority adolescents and their families. Minority children constitute rapidly growing segments of the populations in most Western countries. Available data show that ethnic minority adolescents in The Netherlands run considerably higher risks than Dutch adolescents for maladaptive functioning and mental health problems (Junger & Hean Marshall, 1997).

In the present study we address this significant gap in the literature on the role of family and peers in adolescence by testing for ethnic group differences in mean levels of antisocial behaviour, perceptions of the quality of the parent–adolescent relationship, and involvement with deviant peers in four ethnic groups living in The Netherlands: Dutch, Turkish, Moroccan, and Surinamese. The examination of these mean differences is a first step. The next question focuses on a more complex and interesting issue: whether the same theoretical model of parent and peer influence on problem behaviour is applicable to different ethnic groups. Such an approach can increase our understanding of how social relations affect developmental outcomes in different cultural settings and has been recommended recently by several researchers (Rowe, Vazsonyi, & Flannery, 1994; Garcia Coll, Akerman, & Cicchetti, 2000; Greenberger, Chen, Beam, Whang, & Dong, 2000).

With few exceptions (Smith & Krohn, 1995; Lamborn, Dornbusch, & Steinberg, 1996), most of the studies that have examined similar questions have compared adolescents from one minority group with adolescents from the majority cultures (see for example Forehand, Miller, Dutra, & Chance, 1997). By including four, rather than two groups, the present study can provide a better test of generalizability. We selected three minority groups, Moroccan, Turkish, and Surinamese, as appropriate populations for studying these issues for the following reasons. First, they are the three largest ethnic groups in The Netherlands. Second, these ethnic groups are distinctively different from the Dutch majority group in their cultural values. In contrast to the more individualistic Dutch culture where autonomy and independence from others is highly valued, these three groups value interpersonal relations, collectivism, conformism and social harmony (Janssens, Pels, Deković, & Nijsten, 1999). Still, there are substantial differences among these three ethnic minorities in historical background, immigration history, and religious values. For example, both Moroccan and Turkish immigrants came to the Netherlands in the 1970s for economic reasons, probably with little knowledge regarding Dutch culture. Surinam, on the other

hand, was until 1975 a Dutch colony, and immigrants were acquainted with the Dutch culture and language before immigration. Generally speaking, both Moroccan and Turkish immigrants are Islamic, but Surinamese immigrants have more diverse religious backgrounds (about 50% being Christian, 25% Hindu, 20% Muslim and 5% not religious). Finally, Surinamese is a more visible ethnic group in a predominantly white society. They might, therefore, be more exposed to discrimination. If the same findings were obtained in such diverse samples, it would give strong support for the generalizability of the theory.

Due to the limited research on this issue, it is difficult to formulate specific hypotheses about differences and similarities. It is possible that an identical pattern of association exists in all ethnic groups, as has been found in studies by Greenberger and Chen (1996) and Rowe et al. (1994). But there are also indications in the literature that the same “risk factors” have different effects in different groups, a so-called “process x context interaction” phenomenon. For example, it has been shown that a high degree of parental control, which is associated with problem behaviour in samples of middle class families, has a positive effect on adolescents who grow up in disadvantage neighbourhoods (Deater-Deckard, Dodge, Bates, & Pettit, 1998). These studies, however, examined different socioeconomic contexts within the same culture, rather than cross-ethnic differences, and therefore these results cannot be overly generalized. On the other hand, ethnic minority families are disproportionally represented in lower socioeconomic status and it is possible that similar interaction occurs with ethnicity as well.

In the present study, we expect that cross-ethnic variations will result in stronger relations between parent-child relations and adolescent behaviour for two reasons. First, family loyalty and a strong sense of obligation to meet family expectations that exists in these ethnic groups (Phalet & Schönplung, 2001) suggests that the quality of the parent-adolescent relationship might be more strongly related to adolescent adjustment than in Dutch culture, where parents expect that children develop independence from the family at an early age (Deković, Noom & Meeus, 1997). Second, there is evidence that immigration increases distance between values of parents and the values of adolescents, especially for values dealing with conformity, tradition, and openness to change (Knafo, & Schwartz, 2001). This intergenerational conflict due to migration may result in greater family upheaval and a consequent increase in adolescent problem behaviour. For both of these reasons, a stronger association between parent-adolescent relationships and adolescent antisocial behaviour might be expected for ethnic minorities than for the Dutch group. The first reason suggests that this could be due to the positive aspects of the relationship, whereas the second reason emphasizes negative aspects of the relationship. It seems important, therefore, to assess both positive and negative aspects of the parent-adolescent relationship.

On the other hand, there are reasons to expect a weaker association between parent-adolescent relationships and adolescent adjustment among ethnic minorities. Because parents from ethnic minority groups lack knowledge regarding the dominant culture, and have different values and child-rearing practices, they may be less able to support their adolescents and prepare them for functioning in the new society. Because of this, adolescents from minority groups may be more peer oriented, and more vulnerable to influences outside the family. In fact, empirical findings show that adolescents from minority groups identify more with their peers and spend more unsupervised time with them than adolescents from the majority group (Giordano, Cernkovich & DeMaris, 1993). In other words, the lack of support within the family makes it more likely that ethnic minority adolescents will depend on peers for affiliation and support. Previous research

also has suggested that peer influences might be especially strong in rapidly changing groups, where “old ways” are no longer sufficient for successful adaptation in the future (Greenberger et al., 2000). This higher involvement with peers might result in a higher association between peer relations and problem behaviour in ethnic minority groups than in the Dutch group.

In sum, the current study seeks to examine whether parents and peers play similar roles in the development of adolescent antisocial behaviour for adolescents from different ethnic backgrounds. We focus on middle adolescence, when many changes occur. Parental control tends to decrease and family relations tend to become more mutual. Adolescents develop interests and concerns outside the family context: they become increasingly more involved with peers and their peer relations change in quality, towards more intimacy and disclosure (Hartup, 1999). In this period there is also a significant increase of adolescent problem behaviour (Loeber, Green, Lahey, Frick, & McBurnett, 2000). Moreover, it has been found that cultural differences in the level of adolescent problem behaviour do not emerge until middle adolescence (Greenberger et al., 2000). This developmental period, therefore, seems to be the most appropriate for examining the above question.

Studies on the development of antisocial behaviour have focused almost exclusively on males and often have been conducted with selected samples: adolescents who live in high-risk neighbourhoods, youth offenders or clinical samples (e.g. Stoolmiller, 1994), which further limits the generalizability of the findings. Thus, the present study extends previous work by examining correlates of antisocial behaviour in an ethnically diverse community sample, including adolescents of both gender.

## Method

### *Sample*

The original sample consisted of 698 adolescents, attending the second year of high school. Adolescents were classified into ethnic categories according to their responses on a single item in the questionnaire: “What ethnic group best describes you?” Only those adolescents who identified themselves as Dutch, Moroccan, Turkish, or Surinamese were included in the present analyses. This resulted in a sample of 603 adolescents (318 females and 285 males). In the sample, 68% of the adolescents were Dutch ( $N=407$ ), 11% were Moroccan ( $N=68$ ), 13% were Turkish ( $N=79$ ) and 8% were Surinamese ( $N=49$ ). The mean age of the adolescents in this sample was 14.43 (S.D. = 0.63; range 14–16 years). No significant differences were found between the ethnic groups with regard to age and gender distribution, as indicated by non-significant  $t$ -test and  $\chi^2$ . The only significant difference appeared in the family structure ( $\chi^2=14.06$ ,  $p<0.01$ ); the percentage of the Surinamese adolescents who lived with both parents (56%) was significantly lower than in the other three ethnic groups (82%, 83% and 82% for Dutch, Moroccan and Turkish adolescents respectively).

All adolescents followed the same type of secondary education: junior vocational training. This track of secondary school lasts four years and prepares students for work immediately after finishing school. In contrast, two other tracks, the general secondary track (five years) and the pre-university track (six years), prepare students for the next step in the educational system (college or

university). On average, the adolescents from the ethnic minority groups have lived in the Netherlands for ten years, and 96% of them followed primary education in this country. They spoke Dutch fluently. There were no significant differences in school grades for Dutch language among the four groups.

### *Measures*

The internal consistency (Cronbachs alpha) for each of the measures was satisfactory for all ethnic groups. The alphas varied between 0.72 and 0.94.

*Antisocial behaviour:* The measure of antisocial behaviour consisted of a 14-item scale which included a range of relatively minor acts such as truancy or using public transportation without paying, as well as more serious deviance such as beating someone on purpose or intentionally setting fires (Deković, 1999). The adolescent was asked to indicate how often in the last 12 months he or she had committed each act: 1 = never, 2 = once, 3 = two or three times, 4 = four to ten times, and 5 = more than 10 times.

*Deviant peers:* Involvement with deviant peers was assessed by asking adolescents to indicate on the same 14 items assessing adolescent own antisocial behaviour (see above) how many of their friends showed this behaviour. The answers were given on a 5-point scale: 1 = none of my friends to 5 = all of my friends.

*Parent–adolescent relationship:* Three aspects of the parent–adolescent relationship were assessed. The general quality of the relationship was assessed by the Network of Relationship Inventory (NRI). The NRI was developed to measure perceptions of experiences in close relationships (parents, siblings, friends, romantic partner) (Furman & Buhrmester, 1992). For the purposes of the present study four subscales for parents were used, each consisting of three items. Two subscales assessing Positive quality of the relationship: Affection (e.g. “How much do your parents really care about you?”) and Intimacy (e.g. “How good is your relationship with your parents?”) were combined into one score. Similarly, two subscales, Antagonism (e.g. “How much do you and your parents get annoyed with each other’s behaviour?”) and Conflict (e.g. “How much do you and your parents disagree and quarrel?”) were combined into one score: Negative quality of the relationship. Adolescents were asked to rate how much each feature occurred in their relationship with their parents using a standard 5-point Likert scale.

The third aspect of the parent–adolescent relationship was assessed with the scale Adolescent disclosure. Adolescents were asked to indicate how much they tell their parents about their activities (e.g. “How much do you tell your parents: who your friends are, where you spend time after school, etc.?”). The scale consisted of 6 items to be answered on a 4-point scale: 1 = nothing to 4 = everything).

### *Procedure*

The data for this study were collected as part of a larger survey study on development of adolescent problem behaviour. The data collection took place at school. To prevent a covariation of ethnic group membership with education level, only schools in the lowest track of secondary education were approached. Another criterion for selecting schools was a sufficient percentage of immigrant students (between 10% and 45%). From 37 selected schools, ten schools agreed to

participate. These schools were located in eight cities in The Netherlands. All students attending the second year of these schools (number of classes ranged from 3 to 7 per school) were asked to participate. A letter describing the study was sent to the parents who could indicate if they did not wish their child to participate. Less than 2% of adolescents did not participate due to parental or adolescent refusal. A trained research assistant provided instructions and administered the questionnaire to each class. Students took approximately 50 min to complete the questionnaire and assistance was provided to students when needed.

### *Data analytic strategy*

The first step in data analysis was to examine ethnic, gender and age differences in all of the assessed constructs by using a multivariate analysis of variance. The main focus of the study was, however, to test whether the hypothesized model describes the data equally well for all ethnic groups. It was hypothesized that the quality of the parent–adolescent relationship affects adolescent antisocial behaviour both directly and indirectly through the adolescents' involvement with deviant peers. Path analyses were conducted using structural equation modelling, LISREL 8.53. Input for these analyses consisted of the covariance matrices and the parameters were estimated by the maximum likelihood method. First, the hypothesized model was tested for the whole sample. The overall goodness of fit of the model was estimated with the following indices:  $\chi^2$  value, the corresponding p value, the root mean square error of approximation (RMSEA), non-normed fit index (NNFI) and comparative fit index (CFI). Good-fitting models yield a non-significant  $\chi^2$ . Values of the RMSEA less than 0.05 are considered to indicate a good fit, with values between 0.05 and 0.08 indicating a fair fit. Values of NNFI and the CFI greater than 0.95 are generally taken as evidence of a good fit. We started with a fully saturated model in which all hypothesized relations between the variables were assessed, followed by the deletion of insignificant path(s). This reduced model was then used as the foundation for subsequent investigation of ethnic group differences.

To determine if the basic model fits equally well for all ethnic groups, a multigroup model was fit simultaneously to the four groups. In the first model, all path coefficients were constrained to be identical across groups (Model 1: constrained model). This model hypothesized thus that the relations among the variables are equal for all ethnic groups. The constrained model was then compared with the model in which all the parameters were free to vary across the groups (Model 2: unconstrained model). The models were compared using a standard “decrement-to- $\chi^2$ ” test in which the respective goodness of fits (and degrees of freedom) of two models are differenced.

## **Results**

### *Ethnic, age and gender differences*

Table 1 shows the means and standard deviations of all assessed variables separately for the four ethnic groups.

First, we tested for ethnic group differences in antisocial behaviour, parent–adolescent relationships, and peer deviance. Although our main focus was on ethnic group differences, the

Table 1  
Means and standard deviations of assessed variables

Variables	Dutch		Moroccan		Turkish		Surinamese		Total	
	<i>M</i>	S.D.	<i>M</i>	S.D.	<i>M</i>	S.D.	<i>M</i>	S.D.	<i>M</i>	S.D.
1. Antisocial behaviour	1.43	0.54	1.37	0.65	1.51	0.60	1.48	0.51	1.44	0.56
2. Positive quality	3.06	0.95	3.04	0.80	2.92	0.87	3.00	0.98	3.03	0.92
3. Negative quality	1.98	0.70	1.90	0.67	2.21	0.74	1.99	0.70	2.00	0.70
4. Adolescent disclosure	2.79	0.63	2.71	0.63	2.60	0.68	2.83	0.61	2.76	0.64
5. Deviant peers	1.69	0.64	1.68	0.67	1.71	0.82	1.86	0.83	1.71	0.68

Table 2  
Ethnic, gender, and age differences in assessed variables

	Ethnicity		Age		Gender		Interactions <sup>a</sup>	
	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$	<i>F</i>	$\eta^2$
Multivariate <sup>b</sup>	1.01	0.01	1.99*	0.02	6.61***	0.06		
Univariate								
1. Antisocial behaviour	0.93	0.01	2.54	0.01	14.48***	0.03	3.79* <sup>c</sup>	0.01
2. Positive quality	0.75	0.00	0.94	0.00	0.98	0.00		
3. Negative quality	3.19*	0.02	0.27	0.00	1.78	0.00		
4. Adolescent disclosure	0.95	0.01	0.20	0.00	0.38	0.00		
5. Deviant peers	0.19	0.00	3.95*	0.01	20.54***	0.04		

\*\*\*  $p < 0.001$ . \*\*  $p < 0.01$ . \*  $p < 0.05$ .

<sup>a</sup>Only significant interactions are reported.

<sup>b</sup>Wilks' Lambda.

<sup>c</sup>Age  $\times$  gender interaction.

existing literature suggests that it is important to include age and gender as well. Therefore, we conducted 4 (ethnicity)  $\times$  3 (age: 14, 15 and 16 years)  $\times$  2 (gender) multivariate analyses of variance (MANOVA) for all the variables, followed by univariate ANOVA and post hoc Bonferonni test. The results of these analyses are presented in Table 2.

The MANOVA revealed a significant main effect of age and gender, but not of ethnicity. None of the interactions were significant in multivariate analysis.

The univariate analyses provided a more detailed look at the patterning of group differences. The ANOVA for the antisocial behaviour measure, showed a significant main effect of gender. As could be expected, boys show higher levels of antisocial behaviour ( $M$  boys = 1.54,  $M$  girls = 1.34). In addition, a significant age  $\times$  gender interaction was found for antisocial behaviour. Post hoc Bonferonni test indicated that younger boys and girls (ages 14 and 15) do not differ in level of antisocial behaviour. Significant gender differences emerged only by the age of 16 ( $M$  boys = 2.08;  $M$  girls = 1.38).

Two measures of the parent–adolescent relationship, the positive quality and adolescent disclosure, did not produce any significant main effects or interactions in the univariate analyses.



An ANOVA with the third measure, negative quality of parent–adolescent relationship, showed a significant effect of ethnicity. Post-hoc analyses with Bonferonni test indicated that Turkish adolescents report significantly more negative aspects in the parent–adolescent relationship than the other three groups (see Table 1).

Involvement with deviant peers showed a significant main effect of age, with older adolescents reporting increasingly more peer deviance, and a main effect of gender, with boys being more often involved with peers who also show higher levels of deviance ( $M=1.82$ ), than girls ( $M=1.62$ ).

Comparisons of the variances on the five measures across ethnic groups, based on Levene’s test for equality of variance, revealed no significant differences between the groups. That is, all four groups showed a similar degree of variance on all measures.

In sum, a small but significant effect of ethnicity was found only in the univariate analyses for one of the five variables: negative quality of the parent–adolescent relationship.

### *Relations between antisocial behaviour, parent–adolescent relationship and deviant peers*

The second aim of this study was to examine whether the associations between antisocial behaviour and the measures of parent–adolescent relationships and deviant peers vary as a function of ethnicity.

First, we examined the bivariate correlations among the variables for the total sample (Table 3). In general, all of the correlations were statistically significant and in the expected direction. The three assessed aspects of the parent–adolescent relationships were related to both adolescent antisocial behaviour and involvement with deviant peers. These three scales were moderately intercorrelated, indicating that each scale contributed unique information about the quality of the parent–adolescent relationship. Involvement with deviant peers showed a strong positive relationship with adolescent engagement in antisocial behaviour. This pattern of associations, showing significant associations among predictors (indicators of the parent–adolescent relationship), mediator (deviant peers) and the outcome (antisocial behaviour), meets preconditions necessary for the test of mediational models (Baron & Kenny, 1986).

Next, we evaluated the fit of the “direct and indirect effect model” for the total sample. Analyses began with the fully saturated model in which all paths among the variables were assessed. One path coefficient, from positive quality of parent–adolescent relationship to antisocial behaviour, was not significant ( $t=1.48$ , ns). This path was deleted and the model was

Table 3  
Interrelationship among measures for total sample

	1	2	3	4	5
1. Antisocial Behaviour	1.00				
2. Positive Quality	−0.13*	1.00			
3. Negative Quality	0.33**	−0.30**	1.00		
4. Adolescent Disclosure	−0.31**	0.48**	−0.26**	1.00	
5. Deviant Peers	0.72**	−0.12*	0.35**	−0.26**	1.00

\*\*  $p < 0.001$ . \*  $p < 0.01$ .

reassessed. The model produced an adequate fit,  $\chi^2(1) = 2.19$ ,  $p = 0.14$ ; RMSEA = 0.045, NNFI = 0.99, CFI = 1.00.

#### *Multigroup analysis: comparison of four ethnic groups*

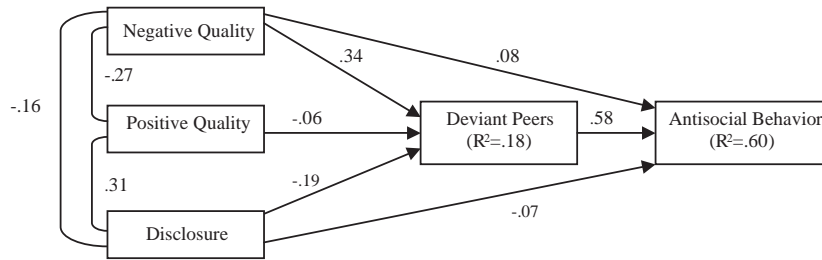
After evaluating the overall fit of the model in the total sample, we used multigroup comparisons to examine the extent to which this model is consistent across ethnic groups. The covariance matrices for each ethnic group were fitted to the common model. First, all parameters were constrained to be equal across groups (Model 1: constrained model). The fit indices of this constrained model were then compared with those of Model 2: unconstrained model (in which path coefficients were estimated separately within each group). The fit indices of each tested model and the results of model comparison are summarized in Table 4.

Results of  $\chi^2$  differences test comparing a constrained model with the unconstrained model showed that the unconstrained model fit the data significantly better (i.e. path coefficients, as set, differ across the groups). In other words, multigroup comparisons showed that the magnitude of the path coefficients linking parent–adolescent relationship and peers to antisocial behaviour varied across ethnic groups.

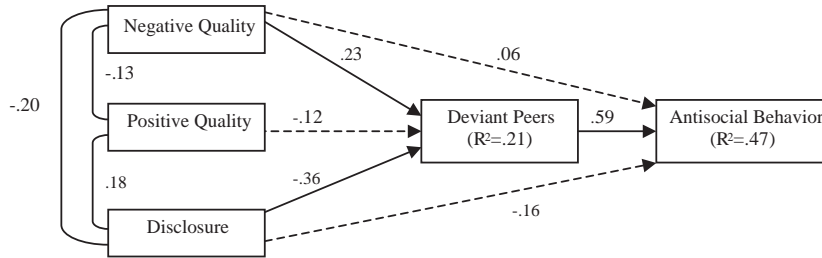
Fig. 1 shows the result of model fitting separately for each ethnic group. Dashed lines indicate non-significant paths. Some of the findings are of particular interest. First, the quality of parent–adolescent relations and involvement with deviant peers accounted for a significant amount of variance in adolescent antisocial behaviour in each of the ethnic groups. However, the percentage of variance accounted for was much smaller for Surinamese adolescents (23%) than for other the three groups (60%, 47%, and 67%, respectively for Dutch, Moroccan and Turkish adolescents). Second, some of the interrelations among the three aspects of parent–adolescent relations seem to be stronger in the samples of Dutch and Moroccan, than in the samples of Turkish and Surinamese adolescents. In the latter two groups, the negative quality of the parent–adolescent relations was unrelated to the positive quality and to adolescent disclosure. Third, only in the Dutch group both direct and indirect effects of the parents on antisocial behaviour reached significance. In Moroccan, Turkish and Surinamese samples direct parental effect did not reach significance, which is probably due to the differences in sample sizes between the groups. However, the magnitude of beta coefficients for the path linking negative quality and antisocial behaviour, were comparable for Dutch, Moroccan and Turkish sample (0.08, 0.06, and 0.07, respectively). Comparable magnitude of beta coefficients for the path between disclosure

Table 4  
Comparative fit of tested models

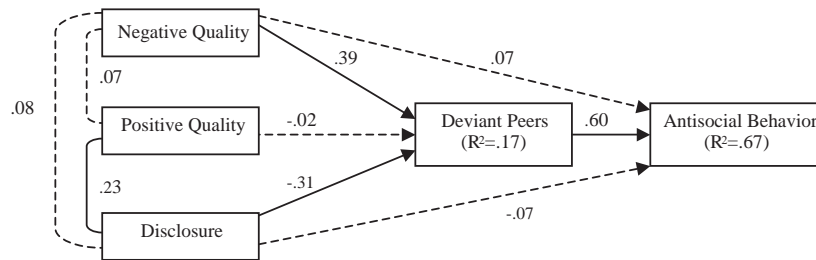
	Model fit indices						Model comparison test		
	df	$\chi^2$	$p$	RMSEA	NNFI	CFI	$\Delta df$	$\Delta \chi^2$	$p(d)$
Model 1: Constrained model	40	76.78	0.000	0.081	0.91	0.96			
Model 2: Unconstrained model	4	4.66	0.320	0.017	0.99	1.00			
Model 1 versus Model 2							36	72.12	<0.001



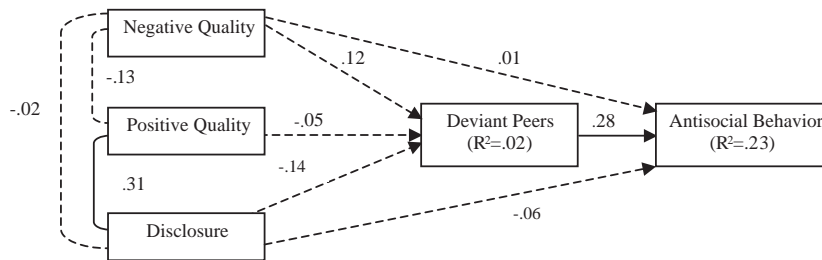
(A)  $\chi^2(1)=0.22, p=.64$ ; RMSEA = .001, NNFI = 1.01, CFI = 1.00



(B)  $\chi^2(1)=0.94, p=.33$ ; RMSEA = .001, NNFI = 1.00, CFI = 1.00



(C)  $\chi^2(1)=1.00, p=.32$ ; RMSEA = .001, NNFI = 1.00, CFI = 1.00



(D)  $\chi^2(1)=2.50, p=.11$ ; RMSEA = .09, NNFI = .91, CFI = .91

Fig. 1. Path coefficients obtained through the LISREL analysis in sample of (A) Dutch, (B) Moroccan, (C) Turkish, and (D) Surinamese adolescents. Paths with non-significant coefficients are represented by dashed lines.

and antisocial behaviour, were also found for Dutch, Turkish and Surinamese adolescents ( $-0.07$ ,  $-0.07$ , and  $-0.06$ , respectively). Disclosure seems to be more important for Moroccans ( $-0.16$ ), whereas negative quality seems to be less important for Surinamese adolescents ( $0.01$ ). Finally, the magnitude of the path coefficient from deviant peers to antisocial behaviour was comparable for Dutch, Moroccan and Turkish group, but this path seems to be much smaller for Surinamese.

## **Discussion**

The present study examined whether the perceived quality of the parent–adolescent relationship and involvement with deviant peers are associated in a similar way to antisocial behaviour in four ethnic groups. We started this investigation by first comparing the levels of the assessed variables across ethnic groups. Despite the findings indicating higher rates of delinquency in official statistics among some ethnic groups (Junger & Hean Marshall, 1997), in the present study no differences were found in engagement in antisocial behaviour, or in the involvement with deviant peers, according to the adolescents' self report. In a recent study that compared self-reports of Turkish and Dutch adolescents from a community sample, similar findings were reported (Murad, Joung, Lenthe, Bengi-Arslan, & Crijnen, 2003). A possible reason for this discrepancy may be a bias in official statistics (i.e. adolescents from ethnic minority groups get caught and convicted more often). A second explanation is that our sample does not include adolescents who show extreme forms of antisocial behaviour. These adolescents experience problems at school as well (e.g. absentees, dropouts) and they are, therefore, often excluded in high school samples.

When comparing the perceived quality of the parent–adolescent relationship across ethnic groups we found that positive aspects of this relationship do not differentiate between the groups. In other words, Dutch, Moroccan, Turkish and Surinamese adolescents report a similar (high) degree of intimacy and satisfaction with their parents. They also do not differ in the degree to which they share information about their whereabouts with their parents. But the perceived negative aspects of the parent–adolescent relationship, defined in this study as antagonism and conflicts, did differ across ethnic groups. Relative to the other three groups, Turkish adolescents report higher levels of problems in the parent–adolescent relationship. It must be pointed out that this difference was small in magnitude and difficult to explain. To a certain degree, all ethnic minority adolescents share the common challenge of bridging the gap between more traditional values they confront at their parents' homes and more modern values they encounter outside the home. It is possible that this gap is larger in Turkish families, which might result in more conflict between adolescents and parents. A recent study (Phalet & Schönplung, 2001) that compared Turkish and Moroccan families living in The Netherlands, showed that Turkish parents tend to put more pressure on their adolescents to conform than Moroccan parents.

The present study attempted to go beyond the typical comparison of groups in the mean level of assessed variables—an approach that has characterized much of the research on ethnic minorities. While research on mean differences provides valuable data about the differences in developmental outcomes between various ethnic or cultural groups, it does not say much about similarities or dissimilarities in the pattern of associations between the assessed variables. In other words,

differences in the mean level of measured variables say little about the pattern of relations between these variables. The main aim of the present study was therefore to examine the generalizability of the hypothesized model across four ethnic groups. This model, proposing that the quality of the parent–adolescent relationship affects adolescent antisocial behaviour both directly and indirectly, through involvement with deviant peers, has been tested and found valid in several studies involving adolescents from dominant cultures (see for empirical examples, Dishion et al., 1991; Ary et al., 1999; Kim et al., 1999).

Results of the present study point out both cross-ethnic similarity and cross-ethnic differences in this model. A significant amount of the variance in adolescent antisocial behaviour was explained by the interrelations among the variables of the hypothesized model in all four ethnic groups. However, the percentage of explained variance differed across the groups. Our multigroup comparison analyses revealed that strength of the paths linking the assessed constructs were different, with generally stronger associations found in the Dutch sample than in the other three samples. The weaker relations found between parent and peer factors and antisocial behaviour is not likely to be an artifact, as the distribution of all assessed variables were similar in all ethnic groups. Although the immigrant samples were smaller than the Dutch sample, there were still enough respondents within each ethnic group to allow meaningful analyses. Moreover, the present findings are consistent with the results of other studies reporting a generally lower strength of the associations among the hypothesized predictors of antisocial behaviour in minority groups. For example, Cernkovich and Giordano (1987) reported a weaker relation between attachment and delinquency in African American than in European American adolescents. More recently, Deater-Deckard et al. (1998) showed that the relation between risk factors in the parent–adolescent relationship and externalizing problem behaviour was less strong for African American than for European American adolescents.

In the present study, we found in the Dutch sample that the perceived quality of the parent–adolescent relationship was related both directly and indirectly, through involvement with deviant peers, to adolescent antisocial behaviour. In the Moroccan and the Turkish sample only indirect path was found: the degree of antagonism and conflict that adolescents experience with their parents and the degree to which adolescents inform their parents about their activities significantly predicted involvement with deviant peers, which in turn predicted adolescent antisocial behaviour. In the Surinamese sample, the quality of the parent–adolescent relationship was unrelated to both involvement with deviant peers and antisocial behaviour.

We can only speculate regarding the reasons for these differences. Obviously, other factors, not assessed in the present study, might affect involvement in antisocial behaviour in Surinamese adolescents. One such factor might be the extended family. Many Surinamese families are headed by single mothers. In the present sample, single mother families were more prevalent in the Surinamese sample than in the other three groups. Whereas 40% of the Surinamese adolescents live in mother-only families, these percentages were 18%, 17%, and 18% for Dutch, Moroccan and Turkish adolescents respectively. These single Surinamese mothers often obtain support from their extended families (grandparents, uncles, aunts) and these family members, especially grandmothers, are also involved in child-rearing (Distelbrink, 2000). In the present study, we only examined the role of parents without considering a potential social influence of the extended family, which might be especially important for Surinamese adolescents. Future research is needed

to explore and substantiate the role of extended family in the development of ethnic minority adolescents.

It is worth noting that the strength of interrelations among the three aspects of the parent–adolescent relationship varied across the four groups, especially with regard to the perceived negative quality of the relationship. In two of the four samples (Turkish and Surinamese), this aspect of the relationship seems to be independent of the perceived positive quality and adolescent disclosure. This is consistent with recent findings showing a different pattern of associations among the dimensions of parenting in Western, individualistic and Non-western, collectivistic families, with the latter differentiating more clearly between positive and negative aspects of parenting. For example, [Dumka, Stoerzinger, Jackson, and Roosa \(1996\)](#) found a strong negative correlation between parental warmth/acceptance and inconsistent, harsh discipline in Anglo American samples, whereas these two dimensions were unrelated in the Mexican sample. Similarly, [Rudy and Grusec \(2001\)](#) reported that warmth was negatively associated with authoritarian control in Anglo-Canadian, but not in the Egyptian Canadian group. These findings highlight the importance of examining whether the model of parenting developed in western cultures adequately describes parenting and the parent–adolescent relationship in other cultures (see also critical comments in [Stewart & Bond, 2002](#)).

Involvement with deviant peers appears to be a common correlate of higher levels of antisocial behaviour for all ethnic groups: adolescents who perceived their peers as engaging in more antisocial behaviour engaged in more misbehaviour themselves. This has been found repeatedly in both North-American (United States and Canada) (e.g. [Dishion et al., 1991](#); [Brendgren, Vitaro, & Bukowski, 2000](#)) and Dutch samples (e.g. [Deković, 1999](#)). The strength of this association, however, seems again to vary as a function of the ethnic background. The magnitude of the path coefficient from deviant peers to antisocial behaviour was comparable for Dutch, Moroccan and Turkish groups, but this path was much smaller for Surinamese. Also, [Giordiano et al.\(1993\)](#) found that black adolescents are less peer oriented, perceive less peer pressure and report a lower need for approval from peers than their white counterparts. It is possible that this is also the case with Surinamese adolescents.

In sum, it seems that the hypothesized model most adequately fit the data of Dutch adolescents. This is not entirely surprising given the fact that this model has been developed and tested in the samples with similar characteristics: white, Western adolescents from dominant culture.

Although several studies examined whether there is variation among ethnic (or cultural) groups in the strength of associations between family relations and adolescent antisocial behaviour ([Smith & Krohn, 1995](#); [Forehand et al., 1997](#); [Birdet al., 2001](#)), we are aware of only two studies that examined cross-cultural similarities and differences in both family and peer correlates of antisocial behaviour during adolescence ([Chen, Greenberger, Lester, Dong, & Guo, 1998](#); [Greenberger et al., 2000](#)). These two studies focused on cultural groups quite different from ours, namely Asian adolescents from China, Korea and Taiwan and USA adolescents, but the results of these studies show a lot of similarities with the present findings. In these studies, it appears that both family and peer relations are correlates of antisocial behaviour regardless of the cultural groups to which adolescents belong, but the relative importance of family versus peers seems to differ across different cultural groups. Similar to our findings, the strength of associations between family, peer factors and antisocial behaviour was stronger and the percentage of explained variance in antisocial behaviour was larger in the USA sample than in the other cultural groups.

Some limitations of the present study should be noted. First, due to the cross-sectional nature of the data, this study cannot provide the answers regarding the direction of effects in these associations. It is possible that, for example, involvement with deviant peers increases the adolescent engagement in antisocial behaviour (“peer influence”), but it is just as possible that antisocial adolescents seek peers who show similar behaviour (“peer selection”) (Vitaro et al., 2000). Similarly, difficulties in the relationship with parents might drive adolescents to rebel and engage in antisocial acts, but this kind of behaviour is also likely to provoke more conflicts in the relationship with parents and to lead to more secrecy. For example, Kerr and Stattin (2003) showed in a longitudinal study that parental negativity seems to be a reaction to delinquency, rather than a cause of it. Obviously, more longitudinal studies are needed to allow a more definite answer to the question of causality.

It must be recognized that all data in the present study are from the same source (e.g. adolescent report) and this shared rater bias can artificially inflate the magnitude of the associations among the variables. It would be desirable in future research to obtain additional data from other sources (e.g. parents and peers) and to employ other methods of data collection (e.g. direct observation of the parent–adolescent interaction). In addition, in the present study adolescent’s perception of the relationship with parents is assessed. In other words, we did not differentiate between the mother and the father. Given the findings indicating differential effects of maternal and paternal parenting on adolescent problem behaviour (Kim et al., 1999), future research is needed to examine the roles that mothers and fathers play in the development of antisocial behaviour in different ethnic groups.

Next, given the fact that the data were gathered at schools, adolescents who experience serious problems (e.g. dropouts) are probably excluded from this sample. It is possible that the relations found were weaker than would have been the case if the sample included more deviant adolescents.

Finally, this study included a large and diverse sample, but it included nevertheless a relatively smaller number of ethnic minority adolescents. For this reason we were unable to pay appropriate attention to sociocultural diversity that exists within these ethnic groups. The members of these groups differ with regard to length of migration, whether they are from rural or urban communities, family composition, strength of religious orientation etc., variables which have been shown to be important for both family relations and adolescent developmental outcome (Murad et al., 2003). Future research is required to examine to what degree these variables affect the pattern of associations obtained in the present study. Therefore, some caution is needed in generalization of these findings to ethnic minority adolescents in general.

In conclusion, this study contributes to our understanding of how social relations affect developmental outcome in a range of cultural settings. Research examining “what is universal in human behaviour from its more culturally specific aspects” (Basic Behavioral Science Task Force of the National Advisory Mental Health Council, 1996, p. 730) has only recently begun. The current study is one of the very few in which multiple groups of adolescents living in the same country but with different ethnic backgrounds were compared. Instead of studying a selected high-risk sample such as youth offenders or clinical samples, we focused on average school attending adolescents and examined cross-cultural similarities and differences in both parental and peer correlates of antisocial behaviour during adolescence. The present findings add to the

growing evidence pointing to similarities, but showing also that different patterns of relations do exist in different cultures. This supports the notion of cultural specificity of psychological theories and highlights the need of taking cultural factors into account when building theories of child and adolescent development.

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