

## ORIGINAL PAPER

Mijnke M. M. Janssen · Frank C. Verhulst · Leyla Bengi-Arslan · Nese Erol · Claudia J. Salter · Alfons A. M. Crijnen

**Comparison of self-reported emotional and behavioral problems in Turkish immigrant, Dutch and Turkish adolescents**

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■ **Abstract** *Objective* The aim of this study was to compare self-reported emotional and behavioral problems for Turkish immigrant, native Dutch and native Turkish adolescents. *Method* A total of 379 Turkish immigrant adolescents living in the Netherlands, and 1,039 Dutch adolescents from the general population completed the Dutch translation of the Youth Self-Report (YSR); 2,151 Turkish adolescents from the general population completed the Turkish translation of the YSR; parents of Turkish immigrant adolescents filled in the Turkish translation of the Child Behavior Checklist (CBCL/4–18). *Results* Turkish immigrant adolescents scored themselves significantly higher than Dutch adolescents on five of the 11 YSR syndromes, most markedly on the Anxious/Depressed, Withdrawn and Internalizing scales. Dutch adolescents scored themselves higher than immigrant adolescents on the Somatic Complaints and Delinquent Behavior scales. Turkish immigrant adolescents scored themselves higher than Turkish adolescents on five of the 11 scales, most markedly on the Delinquent Behavior scale. Total problems scores for Turkish immigrant adolescents were higher than for Dutch and Turkish adolescents. Turkish immigrant adolescents scored themselves higher than their parents assessed them on seven of the 11 scales. *Conclusion* Turkish immigrant adolescents reported more problems in comparison to their Dutch and native Turkish peers.

Different patterns of parent-child interaction, family values and delay of Dutch language skills are considered to be responsible for these differences in scores.

■ **Key words** cross-cultural comparison – migration – adolescents – Youth Self-Report – Child Behavior Checklist

**Introduction**

The arrival of immigrants and their families to western countries makes proper knowledge about the manifestation of psychopathology in children, the variation in levels of psychopathology between cultures, and specific determinants of psychopathology indispensable for mental health workers. Once migrated, immigrants arrive in a considerably different social and cultural environment. They must deal with influences from the host culture, including possible discrimination and low socio-economic status, which exposes immigrant children to considerable stress. The question is whether this migration stress impairs mental functioning and worsens problem behavior. Early studies on the relation between migration and mental health suggested that there was a strong association between migrant status and psychological disorder, whereas more recent research produced contradictory results, with some studies suggesting that immigrants and refugees are at increased risk and others demonstrating a lower risk for psychiatric disorder among immigrants than among native-born [1, 2].

Davies et al. [1] compared levels of self-reported emotional and behavioral problems and competencies between immigrant and non-immigrant 12- to 16-year-old children in Western Australia. Overall, immigrant adolescents reported fewer problems and lower levels of competence than native-born adolescents. Multivariate analyses indicated that higher levels of self-reported problems were predicted by non-immigrant status as well as by non-intact families and by school-setting.

Adolescents and parents often disagree in their re-

M. M. M. Janssen · F. C. Verhulst · L. Bengi-Arslan · C. J. Salter · A. A. M. Crijnen (✉)  
Dept. of Child & Adolescent Psychiatry  
Erasmus Medical Center Rotterdam  
Sophia Children's Hospital  
P. O. Box 2060  
3000 CB Rotterdam, The Netherlands  
Tel.: +31-10/4636-671  
Fax: +31-10/4636-803  
E-Mail: a.crijnen@erasmusmc.nl

N. Erol  
Dept. of Child Psychiatry  
School of Medicine  
University of Ankara  
Ankara, Turkey

ports on presence and severity of problem behavior. Lambert et al. [3] compared emotional and behavioral problems in adolescents in Jamaica and the United States through parent reports (Child Behavior Checklist/4–18 [4]), self-reports (Youth Self-Report [5]) and teacher reports (Teacher's Report Form [6]). Although no significant differences on total problems scores were found between Jamaican and US adolescents, adolescents in both societies reported significantly more problems than their parents and teachers did about them. The comparison between parent reports (CBCL/4–18) and adolescent self-reports (YSR) of 11- to 19-year-olds from the general Dutch population revealed that adolescents reported many more problems than their parents did, with discrepancies being larger for externalizing than for internalizing problems, larger for girls than for boys, and larger with increasing age [7].

This study builds on former studies investigating the emotional and behavioral functioning of children and adolescents of Turkish immigrants in the Netherlands. Bengi-Arslan et al. [8] compared parental CBCL ratings of problems and competencies in Turkish immigrant children with two samples of children who were living in their home countries (Turkey and The Netherlands). Both native Turkish and Turkish immigrant children showed higher levels of parent-reported problems than Dutch children; Turkish immigrant children had very similar patterns of parent-reported problems compared to children living in Turkey. Furthermore, Turkish immigrant children were scored especially higher on the CBCL Anxious/Depressed scale compared with their Dutch peers. Crijnen et al. [9] compared teacher-reported problems in Turkish immigrant children in the Netherlands with those in Dutch children. No differences were revealed between children from both cultures. For children who had both a Turkish and a Dutch teacher, it was found that Turkish teachers scored Turkish immigrant children higher on the Anxious/Depressed scale than their Dutch teachers assessed them.

This is the first study investigating self-reported data (YSR) of the three different groups of adolescents: (1) Turkish immigrant adolescents living in the Netherlands, (2) Dutch adolescents and (3) Turkish adolescents living in Turkey, thereby facilitating comparisons between groups with the same or with different cultural backgrounds. Distinctive from previous studies, the present study compares self-reported data. In addition, the design of the study presented here also makes it possible to compare parent-rated reports (CBCL) and self-reports (YSR) in the Turkish Immigrant adolescent group.

## Subjects and methods

### ■ Turkish immigrant sample

The Turkish immigrant sample was selected from two large cities in the Netherlands: Rotterdam and The Hague. From the municipal registers a randomly selected sample of 4- to 18-year-old children was

drawn. At least one of the children's parents had to be born in Turkey. The resulting target sample included 1,218 children. Data collection took place from February 1993 to June 1994.

In order to contact the sample eligible for inclusion, a letter was sent to the parents explaining the purpose of the study. A week later a trained Turkish interviewer visited their home. If the parents were not at home, they were visited at least once more after working hours to avoid a systematic drop out of children whose parents were both working during the day. If parents consented to be interviewed, the interviewer read the CBCL items aloud and scored the parents' responses. Interviewers were instructed not to give examples or interpretations of behavior; however, they were allowed to answer parents' questions to help them describe their child's behavior. Meanwhile, if the child was between 11 and 18 years old, the YSR was handed to them. After instruction, they were requested to complete the YSR in another room. At the end of the interview, the interviewer checked the YSR. Adolescents who were not at home during the interview were left an envelope containing the YSR scoring instructions and a postpaid return envelope. They were invited to contact the members of the research team by telephone if they had any questions. The interviewers visited younger children (11- to 12-year-olds) a week later in order to help.

The sample has been more extensively described in Bengi-Arslan et al. [8]. For 833 of the 1,218 4- to 18-year-old children, complete CBCLs were available; 418 of the 833 children were between 11 and 18 years old. Of these 418 adolescents, 392 completed the YSR, but 17 YSRs had eight or more missing items, leaving a total of 379 (91%) children with complete CBCLs as well as YSRs which could be used for data analysis.

The sample consisted of 199 boys (52%) and 180 (48%) girls. Two hundred and fifty-three children (67%) were living in Rotterdam, 126 (33%) were living in The Hague. Level of parental education was chosen as an indicator of socio-economic status (SES) and coded low (no schooling or not completed primary school or secondary education) or high (high school or university or high level of professional education). Two hundred and eighty-four (76%) of the parents were of low SES, whereas 88 (23%) were of high SES. For three adolescents (1%), the level of parental education was unknown.

### ■ Dutch sample

From municipal registers a sample representative of Dutch children and adolescents was drawn (for an extensive description of the sampling procedure, see Verhulst et al. [10]).

Trained interviewers contacted the selected parents and appointments were made to complete the CBCL. Meanwhile, if the children were between 11 and 18 years old, they were instructed to fill in the YSR.

The original sample consisted of 2,227 children aged 4 through 18 years. Of this sample, 1,124 11- to 18-year-old children were of Dutch ethnicity. For 1,039 out of the 1,124 (92%) Dutch adolescents, complete YSRs were available for comparison.

Level of parental education was chosen as an indicator of socio-economic status (SES) and coded low (no schooling or not completed primary school or secondary education) or high (high school or university or high level of professional education).

### ■ Turkish sample

From household records kept and updated every year by the Ministry of Health in Turkey a representative Turkish national sample was drawn. The sample has been more extensively described in Erol et al. [11].

Trained interviewers contacted the selected parents, asked them the questions on the CBCL and recorded their answers. Meanwhile, if children were between 11 and 18 years old, they were instructed to fill in the YSR or, if reading skills were not good, the interviewer read aloud the questions and answers and recorded the responses.

The original sample consisted of 3,199 households with children aged 4 through 18 years. Of these children, 2,804 were between 11 and 18 years old and a total of 2,206 of these adolescents completed the YSR. In all, 2,151 (77%) complete YSRs were available for comparison.

In the Turkish immigrant adolescent sample and the Dutch adolescent sample, level of parental education was chosen as an indicator of SES, in the Turkish adolescent sample education level, employment status and income indicated the SES.

## ■ Instruments

### Youth Self-Report

The Youth Self-Report (YSR [5]) was derived from the Child Behavior Checklist (CBCL/4–18 [4]) to assess problems and competencies for ages 11–18 years.

The problem section of the YSR consists of 119 items; 103 items describing a wide range of problems, one open-ended question for adding other physical problems without known medical cause, and 16 items with socially desirable questions. Answers are rated 0 if the item is not true, 1 if the item is somewhat or sometimes true, and 2 if the item is very true or often true. Problem items can be scored on eight syndrome scales: Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior and Aggressive Behavior. The Withdrawn, Somatic Complaints and Anxious/Depressed scales are summed to form the broad-band scale, Internalizing, while the Delinquent Behavior and Aggressive Behavior scales together form the broad-band scale, Externalizing. The total problems score is the sum of all problem scores. Only the problem section of the YSR was used.

The good validity and reliability of the YSR [5] were confirmed for the Dutch translation [12]. For the immigrant sample, the Dutch translation of the YSR was used because all subjects were well acquainted with the Dutch language. The test-retest reliability of the Dutch version for Turkish immigrant children, with a mean test-retest interval of 9 days was  $r = 0.78$  for the total problem score.

### Child Behavior Checklist

The Child Behavior Checklist (CBCL/4–18 [4]) consists of 20 competence and 120 problem items. Items are rated on a three-point scale as described for the YSR. In the present study, the Turkish translation of the CBCL/4–18 was used to obtain information from the parents. Erol et al. [13] confirmed the good reliability and validity for the Turkish translation.

A previous study [8] confirmed the applicability of the Turkish CBCL/4–18 to Turkish immigrant children living in The Netherlands.

## Results

In order to compare the YSR scores between Turkish immigrant and Dutch adolescents, a 2 immigrant status (Turkish immigrant vs. Dutch) x 2 ages (11 through 14

vs. 15 through 18) x 2 gender (boys vs. girls) x 2 SES (low vs. high parental education) analysis of variance (ANOVA) was performed.

For the comparison of YSR scores between Turkish immigrant vs. Turkish native adolescents, a 2 immigrant status (Turkish immigrant vs. native Turkish) x 2 ages (11 through 14 vs. 15 through 18) x 2 gender (boys vs. girls) analysis of variance (ANOVA) was performed. We were not able to use parental education as a factor in this ANOVA because parental educational level was scored differently in both samples.

Alpha was set at  $p \leq 0.01$ , and only significant effects were reported after applying Bonferroni corrections for the number of comparisons that were made.

Demographics of the three samples are shown in Table 1. In the comparison of Turkish immigrant adolescents vs. Turkish adolescents, the factor SES could not be evaluated because SES was differently coded in the Turkish sample than in the immigrant sample. Whereas in the Turkish immigrant adolescent sample and the Dutch adolescent sample, level of parental education was chosen as an indicator of SES, in the Turkish adolescent sample, education level, employment status and income indicated the SES.

Table 2 shows the results of both sets of ANOVAs. Table entries indicate percentage of variance. All significant effect sizes shown in the table could be considered small when applying Cohen's criteria [14]. In the comparison of Turkish immigrant adolescents vs. Dutch adolescents, none of the scales had significant SES effects.

In Table 3, the direction of significant differences between Turkish immigrants and Dutch adolescents' YSR scores are presented. In Table 4, the direction of significant effects in the comparison of YSR for Turkish immigrant adolescents vs. their Turkish peers in Turkey are summarized.

The mean total problems score for the immigrant sample was 38.5 vs. 33.8 for the Dutch, and 33.2 for the Turkish sample.

In order to test whether Turkish immigrant adolescents living in The Netherlands scored themselves sig-

**Table 1** Characteristics of the three samples

Sample characteristics	Turkish Immigrant sample	Dutch sample	Turkish sample
Frame	Adolescents living in the Netherlands with at least one parent born in Turkey	Adolescents with Dutch nationality throughout the Netherlands	Adolescents living in Turkey with Turkish nationality
Procedure	Randomly selected sample from municipal registers of two major cities in the Netherlands (The Hague and Rotterdam)	Two-stage sampling of municipalities followed by random selection from municipal registers	Normative sample from Ankara (capital of Turkey), selected from 3 private and five public schools, representative of all socio-economic levels according to the Ministry of Education
Boys vs. Girls	52 % boys, 48 % girls	49 % boys, 51 % girls	50 % boys, 50 % girls
Social economic status (SES)	76 % low SES 23 % high SES 1 % unknown SES	31 % low SES 69 % high SES	Non comparable, because of differences in definition
Response rate (n)	91 % (379)	92 % (1,039)	77 % (2,151)

**Table 2** Percentage of variance accounted for by significant effects ( $p < 0.01$ ) of immigrant status (Im), age (A), and parental education (E) on YSR problem scores for 11- through 17-year old Turkish Immigrant versus Dutch adolescents, and for Turkish immigrant versus Turkish adolescents

YSR syndromes	Turkish Immigrant (n = 379) vs Dutch (n = 1039) adolescents <sup>1</sup>					Turkish Immigrant (n = 379) vs Turkish (n = 2,151) adolescents <sup>2</sup>						
	Immigration Status	Gender	Age	G x A	G x E	Im x G x A	Im x G x E	Im x G x A x E	Im x G x A	G x A	G x E	Im x G x A x E
Withdrawn	4 <sup>1</sup>	1 <sup>F</sup>	1 <sup>0</sup>	-	< 1	-	< 1	-	-	-	-	-
Somatic Complaints	< 1 <sup>D</sup>	2 <sup>F</sup>	-	< 1	-	-	-	-	1 <sup>F</sup>	< 1	-	< 1
Anxious/Depressed	5 <sup>1</sup>	2 <sup>F</sup>	-	< 1	-	-	-	-	1 <sup>F</sup>	< 1 <sup>0</sup>	-	-
Social Problems	2 <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-
Thought Problems	< 1 <sup>1</sup>	-	-	-	-	-	-	-	-	-	-	-
Attention Problems	-	< 1 <sup>F</sup>	< 1 <sup>0</sup>	-	-	-	-	-	< 1 <sup>F</sup>	< 1 <sup>0</sup>	-	-
Delinquent Behavior	< 1 <sup>D</sup>	< 1 <sup>M</sup>	2 <sup>0</sup>	-	-	-	-	-	< 1 <sup>M</sup>	< 1 <sup>0</sup>	-	-
Aggressive Behavior	-	-	-	-	-	-	-	-	-	< 1 <sup>0</sup>	-	-
Internalizing	5 <sup>1</sup>	3 <sup>F</sup>	< 1 <sup>0</sup>	< 1	-	-	-	-	1 <sup>F</sup>	< 1 <sup>0</sup>	-	-
Externalizing	-	-	< 1 <sup>0</sup>	-	-	-	-	-	-	< 1 <sup>0</sup>	-	-
Total Problems	2 <sup>1</sup>	< 1 <sup>F</sup>	< 1 <sup>0</sup>	-	-	-	-	-	< 1 <sup>F</sup>	< 1 <sup>0</sup>	< 1	-

**Note:** <sup>1</sup> higher scores for Turkish immigrant adolescents; <sup>2</sup> higher scores for Dutch adolescents; <sup>F</sup> higher scores for females; <sup>M</sup> higher scores for males; <sup>0</sup> higher scores for older adolescents

<sup>1</sup> df is 1379 for error and 1 for each effect

<sup>2</sup> df is 1253 for error and 1 for each effect

nificantly different than their parents assessed them, repeated-measures ANOVAs ( $n = 376$ ) were performed to compare YSR and CBCL problem scores of those adolescents. For this comparison, items that were similar on the CBCL and YSR were used. Turkish immigrant adolescents scored themselves significantly higher than their parents did on the Withdrawn (4% of variance), Somatic Complaints (17%), Anxious/Depressed (2%), Social Problems (9%), Thought Problems (12%), Attention Problems (4%) and Delinquent Behavior (20%) scales. No significant difference between self- and parent-reports was found for the Aggressive Behavior scale. Also, immigrant adolescents scored themselves higher than their parents did on Internalizing (8%), Externalizing (6%) and total problems (15%).

## Discussion

Comparisons of self-reported problems as assessed with the Youth Self-Report [12] for Turkish immigrant vs. native Dutch adolescents and for Turkish immigrant vs. native Turkish adolescents showed that Turkish immigrant adolescents obtained significantly higher total problems scores than native Dutch and native Turkish adolescents did; both differences accounted for 2% of the variance. On four of the eight syndrome scales (Withdrawn, Anxious/Depressed, Social Problems and Thought Problems) and on Internalizing, Turkish immigrant adolescents obtained higher scores than Dutch adolescents. Immigrant adolescents scored themselves significantly higher than native Turkish adolescents on five syndrome scales (Somatic Complaints, Social Problems, Attention Problems, Delinquent Behavior and Aggressive Behavior) and on Externalizing.

The Turkish immigrant sample and the Turkish sample were selected in cities, whereas the Dutch sample was selected from cities and villages. Although it would have been preferable to have comparable procedures for all groups, it would have been impossible to select a sufficient number of Turkish immigrants throughout the Netherlands, because the vast majority of immigrants in the Netherlands live in major cities.

The largest difference between Turkish immigrant and Dutch adolescents was found for Anxious/Depressed and Internalizing (both accounting for 5% of the variance). Bengi-Arslan et al. [8] compared parent ratings on the CBCL for Turkish immigrant vs. Dutch children for the same samples as the present study. They similarly found that the largest difference between Turkish immigrant and Dutch children was on the Anxious/Depressed scale, although the effect was much larger in the parent ratings (accounting for 16% of the variance) than in the self-reports. The other differences between CBCL ratings for Turkish immigrant and Dutch children were much larger than the differences we found for the YSR scores in the present study. One possible explanation for the smaller effect sizes for culture on the self-reports when compared to parent-reports is that

**Table 3** Direction of Effects ( $p \leq 0.01$ ) for Significant Effects on Youth Self Reports for 11- through 18-year-old Turkish Immigrant and Dutch Adolescents

	Significant Effects	Direction of Effects
Culture Turkish immigrant vs. Dutch adolescents	Withdrawn, Anxious/Depressed, Social problems, Thought problems, Internalizing, Total problems Somatic Complaints, Delinquent Behavior	Immigrant > Dutch adolescents Dutch > Immigrant adolescents
Gender boys vs. girls	Withdrawn, Somatic Complaints Anxious/Depressed, Attention Problems, internalizing, total problems Delinquent Behavior	Girls > Boys Boys > Girls
Age ages 11 to 14 vs. ages 15 to 18	Withdrawn, Attention Problems Delinquent Behavior, internalizing, externalizing, total problems	Older > Younger adolescents
Gender x Age	Somatic Complaints, Anxious/Depressed	Boys report more problem behavior at a younger age whereas girls report more problem behavior at an older age
Gender x Education	Withdrawn	More problem behavior for boys low on parental education and for girls high on parental education
Culture x Gender x Education	Withdrawn	More problem behavior for Turkish immigrant girls with low parental education, for Turkish immigrant boys with high parental education, for Dutch boys with low parental education, and for Dutch girls with high parental education

**Note** Although for Parental Education a significant effect was found, none of the categories appeared to be significant after Bonferroni-corrections for the number of comparisons

**Table 4** Direction of Effects ( $p \leq 0.01$ ) for Significant Effects on Youth Self Reports for 11- through 18-year-old Turkish Immigrant and Turkish Adolescents

	Significant Effects	Direction of Effects
Immigration Status Turkish Immigrant vs Turkish adolescents	Somatic Complaints, Social Problems, Attention Problems, Delinquent Behavior, Aggressive Behavior, externalizing, total problems	Turkish Immigrant > Turkish adolescents
Gender Boys vs. Girls	Withdrawn, Somatic Complaints, Anxious/Depressed, Attention Problems, internalizing Delinquent Behavior	Girls > Boys Boys > Girls
Age ages 11 to 14 vs. ages 15 to 18	Withdrawn, Anxious/Depressed, Attention Problems, Delinquent Behavior, Aggressive Behavior, internalizing, externalizing, total problems	Older > Younger adolescents
Gender x Age	Somatic Complaints, Anxious/Depressed, Attention Problems, total problems	Boys report more problems at a younger age, whereas girls report more problems at an older age
Immigration Status x Gender x Age	Somatic Complaints	More problems for Turkish girls at an older age, immigrant boys at a younger age and immigrant girls at an older age

Turkish immigrant adolescents are better integrated in the Dutch culture than their parents are and, as a result, have more in common with their Dutch peers than their parents do. Thus, this may result in reporting problems in ways that are more similar to that of Dutch adoles-

cents. Another explanation was given by Pawliuk et al. [15] who found that differences between parental and children's ratings could reflect parental acculturation and immigration experience which may modify perceptions of their children's behavior as well as cultural is-

sues. She assessed 34 predominantly Asian immigrants and their children for relationship of acculturation style of parents and children to children's psychological functioning. Children of parents whose behavior reflected acceptance of the majority culture were rated by parents as significantly lower on the Internalizing scale and significantly higher on the Social Competence scale. Many of the children who had rejected their ethnic culture were scored by their parents as having extreme behavioral problems.

No difference was found between YSR scores for Turkish immigrant and native Turkish adolescents on the Anxious/Depressed and Withdrawn scales. This seems to indicate that Turkish adolescents in general, whether they live in Turkey or in the Netherlands, reported more internalizing problems than their Dutch peers. This finding supports the results of our previous study comparing parental CBCL scores between Turkish immigrant, native Dutch and native Turkish children, which showed that parents of both immigrant and native Turkish children and adolescents scored their children as more anxious and depressed than Dutch parents reported their children to be [8]. Bengi-Arslan et al. [8] explained this difference by the observation that Turkish families give higher value to obedience and conformity than to autonomy, which may induce anxiety in children. This is especially true for Turkish immigrant families in Europe, because they represent the more traditional, rural society in Turkey rather than the society at large. Crijnen [9] explained higher ratings on the Anxious/Depressed scale by Turkish language and culture teachers for Turkish immigrant elementary school children by the delay in Dutch language development. This may have hampered functioning in other areas and induce distress in immigrant children. In addition, Turkish children often lack adequate parental support about school issues and parents may have high expectations with regard to school success. This was also found by Toppelberg et al. [16] who studied 50 bilingual Spanish-English children referred for child- and adolescent therapy. The data strongly confirmed the close tie between poor language skills and emotional and behavioral problems (particularly global, social, thought and attention problems).

There are, however, alternative explanations. A possible explanation for the higher Anxious/Depressed scores could be the higher sensitivity to emotional cues in the mother-child or teacher-child interaction in Turkish than in Dutch adolescents. Turkish mothers give a nonverbal signal to their children by a simple look or gesture, which causes the child to suddenly change his/her behavior to please the mother [17]. Also, the explanations, values and approaches in the Dutch society are different from those in the Turkish culture. In immigrant families, the expectations of the family as well as the pressure around the sense of ethnic identity can lead to serious identity problems seen in the form of anxiety and depression and some delinquent activities [18]. Finally, children, especially boys, are viewed as providers

of economic and old-age security in traditional sections of Turkish society [19], whereas independence is encouraged in the Dutch society. Immigrant adolescents may feel anxious and insecure between these conflicting expectations. In a study on the predictors of self-reported problem behaviors in Turkish immigrant adolescents, it was found that socio-economic factors, such as employment status or the educational level of the parents, contributed most to the explanation of ethnic differences [20].

Dutch adolescents scored themselves slightly higher on the Somatic Complaints and the Delinquent Behavior scales than Turkish immigrant adolescents, while native Turkish adolescents never scored significantly higher than the immigrants. The higher score on the Somatic Complaints scale for Dutch adolescents, although accounting for less than 1 % of the variance, is somewhat surprising because adult Turkish immigrants are known to report more somatic complaints, for instance gastrointestinal problems, which may mask or substitute depressive symptoms [21, 22]. Suzuki [21] considers these psychosomatic complaints in adult Turkish immigrants in former West Germany as part of a stress reaction, especially shortly after migration. The immigrant adolescent population in our study, however, has not recently endured the direct stress of migration because they were either born in the Netherlands or they were very young when they immigrated. This, and the fact that the younger generation is better educated and better able to verbalize their problems in Dutch, is possibly an explanation for the lower level of somatic complaints.

On Delinquent Behavior, native Dutch adolescents scored themselves significantly higher than Turkish immigrant adolescents, whereas immigrant adolescents scored themselves significantly higher than Turkish adolescents. In fact, the latter difference was the largest difference between the immigrant and Turkish sample (accounting for 4 % of the variance). This harmonizes partly with the findings in our previous study [8] on parent-reported problems in Turkish immigrant and Dutch children with Turkish immigrant children 12 years of age and older scoring lower on the Delinquent Behavior scale than Dutch children. In that study, no difference was found on Delinquent Behavior between Turkish immigrant and native Turkish children.

A possible explanation for the difference in scores on Delinquent Behavior between Turkish immigrant and Dutch adolescents may be that immigrant and native Turkish adolescents report less antisocial behavior for fear of being caught by the authorities, with the latter group reporting the least items. Junger [23] concluded that self-report data are not equally valid among all ethnic groups. Boys from Morocco and Turkey who were living in the Netherlands were much more reticent about admitting delinquent activities than Dutch and Surinamese boys who lived in the Netherlands. Therefore, she considers arrest rates as more reliable measures than self-report delinquency data for comparing crime involvement of diverse ethnic groups.

A possible explanation for the higher scores on the Delinquent Behavior scale for Turkish immigrant compared to native Turkish adolescents is that immigrant adolescents, although more reluctant to admit antisocial behaviors than their Dutch peers, are more open about their delinquent activities than native Turkish adolescents. This may reflect the effect of their integration in the Dutch culture as they report delinquent behavior more similar to that of Dutch adolescents.

In this study, a large difference between self-reported and parent-reported problems was found for Delinquent Behavior, accounting for 20% of the variance. Recent data [24] showed that actual injuries of pre-school Hispanic children in the US increased with higher levels of acculturation. Ruchkin et al. [25] investigated the relationships between personality traits/parental rearing and childhood conduct problems/teenage antisocial behavior. Childhood conduct problems in Russian adolescents differed significantly on the experience of a rejecting father and a self-directed character. Hence, it seems that there may be a relationship between culture and parental personality disorders, and aggressive and delinquent behavior in adolescents.

Repeated-measures ANOVAs revealed that Turkish immigrant adolescents scored themselves significantly higher on the Withdrawn, Somatic Complaints, Anxious/Depressed, Social Problems, Thought Problems, Attention Problems, Delinquent Behavior, Internalizing, Externalizing and total problems scales than their parents did. This finding corroborates the findings in other cultures, including the Netherlands and US [7, 26] that adolescents take different perspectives in perceiving and reporting their own problems than their parents do when reporting their children's problems.

In conclusion, Turkish immigrant adolescents report more problems than their Dutch peers on Internalizing and total problems; they report more problems than native Turkish adolescents on Externalizing and total problems; and they report more problems than their parents report about them on Internalizing, Externalizing and total problems. Strikingly, although SES-percentages were different between the immigrant and Dutch adolescent sample, none of the YSR scales showed significant effect of SES in the ANOVA comparing the Dutch and Turkish immigrant adolescent sample. Hence, social class and cultural education are not considered to be an explanation for our findings.

The largest difference between Turkish immigrant and Dutch adolescents was found on Internalizing problems, especially on Withdrawn and Anxious/Depressed, whereas the largest difference with native Turkish adolescents was found on reports of Delinquent Behavior. Results of this study underline the importance of obtaining information about emotional and behavioral problems in adolescents of different cultures and immigration status by multiple informants.

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