Adjustment problems in the family and school contexts, attitude towards

authority and violent behaviour at school in adolescence

Gonzalo Musitu Ochoa, Universidad de Valencia, Spain

Estefanía Estévez López, Universidad de Valencia, Spain

Nicholas Peter Emler, University of Surrey, United Kingdom

Abstract

The main purpose of the present study was to analyse the role of different but interrelated variables relative to the family and school contexts in relation to problems of violent behaviour at school in the adolescent period. Participants were 1068 adolescents aged 11 to 16 (47% male) drawn from secondary schools in the Valencian Community (Spain). Statistical analyses were carried out using structural equation modelling. The model accounted for 32% of the variance in school violent. Results showed a direct association between quality of communication with father and teacher's expectations about the student, with the adolescent's involvement in violent behaviour at school. Moreover, findings showed indirect paths, where adolescent's self-concept (family and school domains), acceptance by peers, and attitude towards authority, seemed to be influenced by quality of interactions with parents and teachers, and also be closely associated with violent behaviour at school. Findings are discussed in relation to previous research on adolescent psychosocial adjustment and behavioural problems at school.

Key words: adolescence, family communication, teacher, attitude to authority, school violence.

Adjustment problems in the family and school contexts

and violent behaviour at school in adolescence

Research analysing behavioural problems among children and adolescents in school

has been increasing steadily since the 1980s, due probably to the growing frequency and

seriousness of these problems in the United States and some European countries (Skiba,

2000; Smith, 2003). These behavioural problems involve both antisocial behaviour (theft,

vandalism and damage to school property) and aggressiveness (verbal and physical violence

towards teachers and classmates) (Astor, Pitner, Benbenishty, & Meyer, 2002; Herrero,

Estévez, & Musitu, in press). Regarding factors that may underlie these problems, previous

research from an ecological point of view, has documented an association between violent

behaviour in adolescence and adjustment problems in both family and school contexts.

Prior studies examining the association between family variables and violent

behaviour at school have shown that a negative family environment characterized by

problems of communication between parents and children is an important risk factor for the

development of behavioral problems in the adolescent period (Demaray & Malecki, 2002;

Estévez, Musitu, & Herrero, 2005a). Recent investigations point out that the quality of

communication with parents is closely related to adolescent's behavioural and psychological

adjustment (Liu, 2003; Stevens, De Bourdeaudhuij, & Van Oost, 2002); on the contrary,

negative and offensive communication with parents may lead to misbehaviours in children

(Lambert & Cashwell, 2003; Loeber, Drinkwater, Yin, Anderson, Schmidt, & Crawford,

2000). Another variable relative to the family context and considered in the scientific

literature about problems of behaviour in children, is the family self-concept. The negative

family self-concept, which is, moreover, strongly associated with the parent-adolescent

negative communication style (Jackson, Bijstra, Oostra, L. & Bosma, 1998; Musitu & Cava,

2001; Musitu & García, 2004), has been linked to violence in adolescence (Estévez, Herrero, Martínez y Musitu, 2006).

Some previous research has also analysed the relationship between school variables and students showing behavioural problems, indicating that adolescents who are violent in the school context also have more negative interactions with teachers (Blankemeyer, Flannery & Vazsonyi, 2002; Jack, Shores, Denny, Gunter, DeBriere, & DePaepe, 1996; Meehan, Hughes, & Cavell, 2003; Murray & Murray, 2004), have lower levels of school self-concept (Andreou, 2000; Boders, Earleywine, & Huey, 2004; O'Moore y Kirkham, 2001), and in some cases are not accepted and rejected by peers (sociometric status) (Hay, Payne, & Chadwick, 2004; Rubin, Bukowski, & Parker, 1998; Werner, 2004). It has been also shown that violent adolescents normally hold more negative attitudes towards institutional authorities such as the police, the law, and also the school and teachers (Adair, Dixon, Moore, & Sutherland, 2000; Emler, Ohana, & Dickinson, 1990; Emler & Reicher, 1995). Moreover, recent studies point out important links among these school variables: for instance, adolescents with low sociometric status (rejected by peers) tend to show a negative school self-concept, as well as negative attitudes to the school context (Estévez et al., 2006). It could be possible, thus, that some of these factors jointly contribute to the understanding, at least in part, of school violence.

This and other significant questions should be answered if we are to understand the relationship between adjustment problems in the family and school contexts and violent behaviour in adolescence. For example, very little research has also jointly considered the role of father, mother, and teacher on adolescent behavioural problems. Regarding parental figures, research has traditionally examined the influence of mother on child's adjustment (Berg-Nielsen, Vika, & Dahl, 2003; Rey, 1995), while recent studies suggest that fathers and mothers may each independently contribute to the explanation of some behavioural problems

in children (Veneziano, 2000). Along this line, some authors suggest that the closer association is between positive father-child relationship and adolescent's psychosocial adjustment (Estévez et al., 2005a, 2005b; Rohner & Veneziano, 2001).

Taking into account these findings from the literature, the main purpose of the present study was to analyse the role of different but interrelated variables relative to the family and school contexts in relation to problems of violent behaviour at school in the adolescent period. The family variables included in the study were quality of communication with father and mother, and family self-concept, and the school variables considered were interaction with teacher, acceptance/rejection by peers (sociometric status), school self-concept, and attitude towards institutional authority. It was expected that the quality of the relationship between the adolescent and their parents and teachers would be associated with the adolescent's positive self-concept (in the family and school domains), acceptance by peers, and positive attitudes towards authority, which in turn would be related to lower levels of violent behaviour at school.

## Method

### Participants

Participants in the study were 1068 adolescents attending secondary education at the time of the research in four public schools of the Valencian Community (Spain). Age ranged from 11 to 16 years old (mean age 13.7; s.d. 1.6), and gender was distributed approximately equal in the sample: 47% were boys and 53% were girls. For multi-group analyses, we split the sample into two age groups corresponding respectively to early adolescence (11-13 years-old; 45.4% of the total sample) and mid adolescence (14-16 years-old).

### Procedure

Data for this research were collected as part of a larger study about adjustment problems in adolescence. After pre-contacts were made with several public schools selected

at random, four schools finally participated in the study mostly based on their availability and the willingness of staff to collaborate in the investigation. Following initial contact with head teachers, all teacher staff were informed of the objectives of the study during a two-hour presentation. In parallel, a letter describing the study was sent to the parents requesting that they indicate in writing if they did not wish their child to participate in (all parents agreed to the participation of their children). However, both teachers and parents expressed a wish be informed about the main results of the investigation in a meeting with the research team; this took place once data analyses were completed.  Participants anonymously filled out the scales during a regular class period. All measures were administered within each classroom on the same day. Finally, teachers were also asked to complete a teacher report for each participating adolescent.

Measures and Instruments

Adolescent's Communication with Parents was measured using the 20-item Parent-Adolescent Communication Scale (PACS; Barnes & Olson, 1982). Adolescents described communication with their parents on a five-point scale (1 = never, 5 = always). The original scale showed a two-factor structure referring to degree of openness and extent of problems in family communication (coefficients alpha .87 and .78; test-retest reliabilities .78 and .77. respectively). However, as with other recent studies (see Feldman & Rosenthal, 2000), we could not replicate this factor structure in our data. Principal component analysis yielded a three-factor structure for father and mother separately. The first factor explained 30.66% of variance, defined by ten items referring to open communication with parents (e.g. "my mother/father is always a good listener"). The second factor explained 21.85% of variance and was defined by six items referring to offensive communication with parents (e. g. "my mother/father insults me when she/he is angry with me"). Finally, the third factor explaining 9.52% of variance was defined by four items referring to avoidant communication with

parents (e.g. "I am sometimes afraid to ask my mother/father for what I want"). Cronbach's reliability coefficients for these subscales in the present study were .87, .76 and .75 respectively.

Family and School Self-Concept were measured using the family and school sub-scales of the Self-Concept Form-A Scale (AFA) (Musitu, García, &  Gutiérrez, 1994). The AFA has been widely used in the Spanish population and provides information about the adolescent's family self-concept (e.g. "I have confidence in my parents"), and school self-concept (e.g. "I'm a good student"), on a 3-point scale (1 = never, 2 = sometimes, and 3 = always). Cronbach alphas for these subscales in the present study were .79 and .86 respectively.

Attitude towards Institutional Authority was assessed using a scale adapted from Reicher and Emler (1985). This scale consisted of 14 items rated on a four-point scale (1 = I totally disagree, 4 = I totally agree") referring to attitude towards teachers and school. This scale showed a two-factor structure using principal component analysis: the first factor (25.74% of variance) was defined by eight items referring to attitude towards school and teachers (e.g. "I agree with what my teachers say and do"; "It is usual to disobey teachers if there is not any punishment", inverse coded), while the second factor (21.71% of variance) was defined by six items referring to perception of injustice (e.g. "Teachers only take care of students with good marks"). Cronbach alphas for these subscales were .77 and .73 respectively.

Violent Behaviour at School was measure using the Violence Behaviour Scale (Herrero et al., in press). On this scale, adolescents indicated the frequency with which they engage in 19 deviant behaviours at school in the last 12 months on a six-point scale (0 = I don't want to share this information, 1 = never, 5 = many times) (e.g. "I got into fights at

school"). Approximately 7% of respondents chose the "0" response for some items; these participants were removed from the analysis. Cronbach alpha for this scale was .84.

Sociometric Status was assessed using the Sociometric Questionnaire. This instrument allows evaluation of the basic structure of relationships in a group. This kind of questionnaire is not standardised; rather, it is prepared by the researcher following specific criteria for the group whose structure of relationships is being studied. In the present study, this scale was used to obtain information about the social structure of interactions between students in the same class. The questionnaire was comprised of 2 items, grouped in accordance with the sociometric criterion of "teamwork". Participants were asked to give positive selections ("With whom would you prefer to work in team?") and negative selections ("With whom would you prefer not to work in team?"). The method required respondents to nominate three classmates listed in order of preference. The positive and negative nominations received from peers provided indexes of peer acceptance and peer rejection, respectively. Following Coie, Dodge and Coppotelli's procedure (1982), an index of social preference named sociometric status, was formed from these positive and negative scores.

To complete the sociometric questionnaire, students were provided a class roster with numbers. To preserve anonymity of students' responses, each name was assigned a number and students were instructed to complete the sociometric questionnaire by writing the numbers instead of the names of classmates. Students were also asked to write their own number on the top of the questionnaire and were told to not write their name on the response sheets. Students were instructed to keep their answers private and were given sheets to cover their responses.

Teacher's Perception of Students was measure using an instrument constructed for the present study (LISIS Team, University of Valencia, 2006). In Spanish schools there is a head instructor for each classroom who spends more time with students than other teachers from

the school staff. A total of 44 head instructors filled out the Teacher's Perception of Student Scale in order to estimate, on a ten-point scale (1 = very bad, 10 = very good), levels of (1) adolescent's social integration at school, (2) academic success, and (3) quality of teacher-student relationship for each student in his/her classroom (teachers' response rate: 100%). To complete this scale, all head instructors used the numbers previously assigned to students instead of their names.

As regards the validity of the measures used in the study, previous research has shown adequate predictive validity for all the scales. For instance, high levels of family and academic self-concept have been shown to predict low levels of psychological distress and measures of family functioning (Musitu et al., 1994; Musitu & García, 2004). The three dimensions of the Parent-Adolescent Communication Scale have also been found to be significantly associated with several outcomes in the Spanish adolescent population; for instance, Estévez et al. (2005a) found that low scores for open communication and high scores for offensive and avoidant communication were associated with high levels of psychological distress, a poorer relationship with teacher, and high levels of school-based violent behaviour. The Attitude towards Institutional Authority Scale has also shown a close link with high levels of aggression and violence in adolescence (Emler & Reicher, 1995). As regards the Teacher's Perception of Students Scale, previous work has reported an association between negative teacher's perception of students and behavioural problems at school (Estévez et al., 2005a; Herrero et al., in press).

## Results

Preliminary correlational analyses among all study variables were carried out (see Table 1). Variables concerning interaction with parents and teachers were significantly associated with adolescent's self-concept, sociometric status, attitude towards institutional

authority, and violent behaviour at school. Therefore, all these variables were included in the subsequent regression analysis.

Insert Table 1 about here

We used EQS 6.0. (Bentler, 1995) Structural Equation Program to examine the relationships among all these variables. Santorra-Bentler corrected statistics were considered to account for the non-normality of the data (normalized estimate = 34.894). The model showed a reasonably good fit, as these indexes indicate: CFI = .98, IFI = .98, NNFI = .97, and RMSEA = .038. For the CFI, IFI, and NNFI values above .95 or higher are acceptable, and for the RMSEA values above .05 or less are acceptable (Batista & Coenders, 2000). This model explained 32% of variance in Violent Behaviour.

Table 2 reports all factor loadings of the observed variables on their latent variables. Open communication, offensive communication, and avoidant communication were used as indicators of the latent variables Communication with Father and Communication with Mother. Adolescent's social integration at school, academic success, and relationship with the teacher, were used as indicators of the latent variable Teacher's Perception of Student. Attitude towards school and teachers and perception of injustice were used as indicators of the latent variable Attitude towards Institutional Authority. Finally, because Family Self-concept, School Self-concept, Sociometric Status, and Violent Behaviour at School each had only one indicator, the factor loading was 1 with an error 0.

Insert Table 2 about here

Figure 1 shows the final structural model with the standardized path coefficients and their confidence intervals. We found correlated errors between communication with father and mother (r = .69, p < .001), communication with father and teacher's perception of student (r = .20, p < .001), and communication with mother and teacher's perception (r = .21, p < .001) (these correlations are omitted in the figure).

Insert Figure 1 about here

Results showed communication with father and teacher's perception to follow direct paths ($\beta$ = -.19, p < .001, $\beta$ = -.10, p < .001, respectively). This finding suggests that both positive communication with father and teacher's positive expectations, are factors related to lower levels of violent behaviour at school. Moreover, communication with both parents and teacher's perception also followed indirect paths. On the one hand, open communication with parents (especially with mother) seemed to be closely associated with adolescent's positive family self-concept ($\beta$ = .53, p < .001 mother, and $\beta$ = .19, p < .001 father), which was in turn strongly related to school self-concept ($\beta$ = .26, p < .001). As the model indicated, school self-concept and positive attitude towards authority are also interrelated factors ($\beta$ = .47, p < .001) that showed a negative significant relationship with violent behaviour at school ($\beta$ = -.47, p < .001). On the other hand, there is an indirect path followed by teacher's perception, where teacher's positive expectations about students were strongly associated with peer acceptance (sociometric status) ($\beta$ = .91, p < .001), which was in turn positively related to school self-concept ($\beta$ = .50, p < .001).

In order to test the measurement and structural invariance of the general model across gender and age groups we conducted multi-group analyses. Two models were tested for each multi-group comparison. In the first between-group model (unrestricted model) all parameter estimates (factor loadings and structural paths) were freely estimated across groups. In the second (restricted model), each of the factor loadings and structural paths were constrained to be invariant across groups. If the chi-square for the restricted model was significantly larger than the chi-square of the unrestricted model, the assumption of invariance would not be tenable. Results indicated a non-significant difference between these models for age groups: -$\Delta\chi2(27, N = 1049) = 38.34$, ns. In the case of gender a significant difference was found -$\Delta\chi2(27, N = 1049) = 44.16$, p <. 001. Closer inspection of cross-group constraints revealed

that 7 out of 27 constraints would significantly decrease $\chi2$ if released. After releasing these constraints, the unconstrained and the constrained models for gender groups were statistically equivalent -$\Delta\chi2$(27, N = 1049) = 32.97, ns. Results supported, therefore, invariance of the general model across gender and age groups.

Discussion

The present study aimed to analyse the role of different but interrelated family and school variables in relation to adolescent's involvement in violent behaviour at school. As expected, the quality of the interaction among adolescents, parents and teachers was associated with levels of violent behaviour, both directly and indirectly, through the influence in the adolescent's self-concept, sociometric status, and attitude to formal authority. When examining the direct relationships regarding communication with father and mother and teacher's perception, we found two significant direct and negative associations. In these respects, our results suggested that the positive father-child communication, as well as the teacher's positive expectations about students, may be protective factors in relation to development of problems of violent behaviour at school. These finding are in line with those recently reported by Rohner and Veneziano (2001) and by Welsh et al. (2004), who have emphasised the close link between quality of father-child relationship and adolescent's adjustment. Some previous studies have also revealed an association between violent behaviour at school, problems of interaction with teachers, and teachers' negative perception of students (Estévez et al., 2005a; Murray & Murray, 2004).

Furthermore, the structural model calculated showed two indirect paths, one relating to parents and the other to teachers. Regarding parents, we found a link between open communication with both father and mother and adolescent's positive family self-concept, which was in turn related to positive school self-concept. This finding is consistent with those reporting that positive family communication between parents and children is associated with

the adolescent's psychological well-being, high levels of self-esteem, and positive self-concept in different domains (Estévez et al., 2005b; Fletcher, Steinberg, & Sellers, 1999; Jackson, et al., 1998).

With regard to teachers' perceptions, results indicated the existence of a strong relationship between these perceptions and sociometric status in the classroom, while the latter was in turn also associated with school self-concept. This finding suggests that a positive evaluation by the teacher is related to high social status for the student (popular and liked by peers) and, moreover, that students who are positively perceived by both teacher and classmates exhibit higher levels of school self-concept. In contrast, when teachers have more negative perceptions of students, this is closely linked to low sociometric status (students are rejected and disliked by peers), in turn leading to low levels of school self-concept. As recent studies have indicated, teachers may affect social relationships in the classroom, since teacher's beliefs, expectations, and perceptions may influence students' beliefs, expectations, and peer preferences in relation to classmates (Birch & Ladd, 1998; Trouilloud, Sarrazin, Martinek, & Guillet, 2002; Zettergren, 2003). Furthermore, it has been found that students with low social status in the classroom normally show lower levels of school self-concept (Hymel, Bowker, & Woody, 1993; Ladd, 1999).

School self-concept appeared to have a strong association with student's attitudes towards institutional authority; in other words, adolescents who obtained lower scores for school self-concept showed less respect towards school and teachers and perceived more injustice at school. In a recent study, Levy (2001) found a similar trend in self-concept and attitude towards authority scores in a sample of adolescents. Nevertheless, the relationship among student's attitude and the different dimensions of self-concept has hardly been considered in research focused on adolescent violent behaviour at school, while the scant data

we have from the scientific literature suggest that these variables may jointly explain, at least in part, behavioural problems in the school context (Haynes, 1990).

The relationship between attitude to institutional authority and violent behaviour in adolescence has been more extensively documented. Adolescents who show behavioural problems at school express a more negative attitude towards formal figures and institutions, such as teachers and the school context (Emler & Reicher, 1995, 2005; Adair et al., 2000). This negative attitude, as our results also indicated, seems to be a very important risk factor in the development of behavioural problems (Hoge, Andrews, & Lescheid, 1996; Loeber, 1996). However, attitude towards institutional authority may also be a protective factor, since a positive attitude to school and teachers has been positively related to behavioural adjustment in adolescence (Moncher & Miller 1999; Thornberry, 1996).

Finally, the following limitations are acknowledged. Although data in the present study were collected from different sources (adolescents, their classmates, and their teachers), many of the measures used are self-reported and response bias might impact the validity and generalizability of the study findings. It would be desirable, therefore, in future research to obtain additional data from parents (for example, regarding perception of family communication) to better understand the associations analyzed in this study. Moreover, as the present study used a cross-sectional design, caution is justified in making causal inference on the basis of the data available. For instance, there is ample evidence for both causal directions of attitude-behaviour relations (Holland, Verplaken, & van Knippenberg, 2002). Greater confidence about the causal direction of influences would require a longitudinal study.

Acknowledgements

References

Adair, V. A., Dixon, R. S., Moore, D. W., & Sutherland, C. M. (2000). Bullying in New Zealand secondary schools. *New Zealand Journal of Educational Studies, 35,* 207-221.

Andreou, E. (2000). Bully/Victim problems and their association with psychological constructs in 8-to 12-year old Greek schoolchildren. *Aggressive Behavior, 26*, 49-56.

Astor, R., Pitner, R. O., Benbenishty, R., & Meyer, H. A. (2002). Public concern and focus on school violence. In L. A. Rapp-Paglicci, A. R. Roberts, & J. S. Wodarski (Eds.), *Handbook of Violence.* New York: John Wiley & Sons, Inc.

Barnes, H. L., & Olson, D. H. (1982). Parent-adolescent communication scale. In H. D. Olson (Ed.), *Family inventories: Inventories used in a national survey of families across the family life cycle* (pp. 33-48). St. Paul: University of Minnesota Press.

Batista, J. M. & Coenders, G. (2000). *Modelos de ecuaciones estructurales.* Madrid: La Muralla.

Bentler, P. M. (1995). *EQS structural equations program manual.* Encino, CA: Multivariate Software.

Berg-Nielsen, T. S., Vika, A., & Dahl, A. A. (2003). When adolescents disagree with their mothers: maternal depression and adolescent  self-concept. *Child Care Health Development, 29*, 207-13.

Birch, S. H., & Ladd, G. W. (1998). Children's interpersonal behaviors and the teacher-child relationship. *Developmental Psychology, 34*, 934-946.

Blankemeyer, M., Flannery, D. J., & Vazsonyi, A. T. (2002). The role of aggression and social competence in children's perceptions of the child-teacher relationship. *Psychology in the Schools, 39,* 293-304.

Boders, A.,  Earleywine, M., & Huey, S.J. (2004). Predicting problem behaviours with multiple expectancies: expanding expectancy-value theory. *Adolescence, 39,* 539-550.

Coie, J.D., Dodge, K.A. & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557-570.

Demaray, M. P., & Malecki, C. K. (2002). The relationship between perceived social support and maladjustment for students at risk. *Psychology in the Schools, 39*, 305-316.

Emler, N., Ohana, J. & Dickinson, J. (1990). Children´s representation of social relations. In G. Duveen y B. Lloyd (Eds.), *Social representations and the development of knowledge.* Cambridge: Cambridge University Press.

Emler, N. & Reicher, S. (1995). *Adolescence and delinquency. The collective management of reputation.* Oxford: Blackwell.

Emler, N. & Reicher, S. (2005).  Delinquency: cause or consequence of social exclusion?  In D. Abrams, J. Marques & M. Hogg (Eds). *The social psychology of inclusion and exclusion* (pp. 211-241). Philadelphia: Psychology Press.

Estévez, E., Herrero, J., Martínez, B., & Musitu, G. (2006). Aggressive and non-aggressive rejected students: an analysis of their differences. *Psychology in the Schools, 43,* 387-400.

Estévez, E., Musitu, G., & Herrero, J. (2005a). The influence of violent behavior and victimization at school on psychological distress: the role of parents and teachers. *Adolescence, 40*, 183-195.

Estévez, E., Musitu, G., & Herrero, J. (2005b). El rol de la comunicación familiar y del ajuste escolar en la salud mental del adolescente. *Salud Mental, 28*, 81-89.

Fletcher, A. C., Steinberg, L. & Sellers, E. B. (1999). Adolescents' well-being as a function of perceived interparental consistency. *Journal of Marriage and the Family, 61*, 599-610.

Hay, D. F., Payne, A., & Chadwick, A. (2004). Peer relations in childhood. *Journal of Psychology and Psychiatry, 45*, 84-108.

Haynes, N. M. (1990). Influence of self-concept on school adjustment among middle school students. *Journal of Social Psychology, 130*, 199-207.

Herrero, J., Estévez, E., & Musitu, G. (in press) The relationships of adolescent school-related deviant behaviour and victimization with psychological distress: testing a general model of the mediational role of parents and teachers across groups of gender and age. *Journal of Adolescence* (available online November 2005).

Hoge, R. D., Andrews, D. A., & Leschied, A. W. (1996). An investigation of risk and protective factors in a sample of youthful offenders. *Journal of Child Psychology and Psychiatry ad Allied Discplines, 37*, 419-424.

Holland, R. W., Verplanken, B., & van Knippenberg, A. (2002). On the nature of attitude-behaviour relations: the strong guide, the weak follow. *European Journal of Social Psychology, 32,* 869-876.

Hymel, S., Bowker, A. & Woody, E. (1993). Aggressive versus withdrawal unpopular children: variations in peer and self-perceptions in multiple domains. *Child Development, 64*, 879-896.

Jack, S. L., Shores, R. E., Denny, R. K., Gunter, P. L., DeBriere, T., & DePaepe, P. (1996). An analysis of the relationships of teachers' reported use of classroom management strategies on types of classroom interactions. *The Journal of Behavioral Education, 6,* 67-87.

Jackson, S., Bijstra, J., Oostra, L. & Bosma, H. (1998). Adolescents' perceptions of communication with parents relative to specifics aspects of relationships with parents and personal development. *Journal of Adolescence, 21*, 305-322.

Ladd, G. W. (1999). Peer relationships and social competence during early and middle childhood. *Annual Review of Psychology, 50*, 333-359.

Lambert, S. F., & Cashwell, C. S. (2003). Preteens talking to parents: perceived communication and school-based aggression. *The Family Journal: Counseling and Therapy for Couples and Families, 11*, 1-7.

Levy, K. S. (2001). The relationship between adolescent attitudes towards authority, self-concept, and delinquency. *Adolescence, 36*, 333-346.

Liu, Y. (2003). Parent-child interaction and children's depression: the relationship between parent-child interaction and children's depressive symptoms in Taiwan. *Journal of Adolescence, 26*, 447-457.

Loeber, R. (1996). Developmental continuity, change and pathways in male juvenile problem behaviours and delinquency. In J. D. Hawkins (Ed.), *Delinquency and crime: current theories* (pp. 28-67). New York: Cambridge University Press.

Loeber, R., Drinkwater, M., Yin, Y., Anderson, S. J., Schmidt, L. C., & Crawford, A. (2000). Stability of family interaction from ages 6 to 18. *Journal of  Abnormal Child Psychology, 28*, 353-369.

Meehan, B. T., Hughes, J. N., & Cavell, T. A. (2003). Teacher-student relationships as compensatory resources for aggressive children. *Child development, 74*, 1145- 1157.

Moncher, F. J., & Miller, G. E. (1999). Nondelinquent youths' stealing behavior and their perceptions of parents, school, and peers. *Adolescence, 34*, 577-591.

Murray, C., & Murray, K. M. (2004). Child level correlations of teacher-students relationships: an examination of demographic orientation characteristics, academia orientations, and behavioral orientations. *Psychology in the Schools, 41*, 751-762.

Musitu, G. & Cava, M. J. (2001). *La familia y la educación*. Barcelona: Octaedro.

Musitu, G. & García, F. (2004). Consecuencias de la socialización familiar en la cultura española. *Psicothema, 16*, 288-293.

Musitu, G., García, F., & Gutiérrez, M. (1994). *AFA: Autoconcepto Forma-A.* Madrid: TEA Ediciones.

O'Moore, M. & Kirkham, C. (2001). Self-concept and its relationship to bullying behavior. *Aggressive behavior, 27*, 269-283.

Reicher, S., & Emler, N. (1985). Delinquent behavior and attitudes to formal authority. *British Journal of Social Psychology, 3,* 161-168.

Rey, J. M. (1995). Perceptions of poor maternal care are associated with adolescent depression. *Journal of Affect Disorder, 34*, 95-100.

Rohner, R. P., & Veneziano, R. A. (2001). The importance of father love: history and contemporary evidence. *Review of General Psychology, 5*, 382-405.

Rubin, K. H., Bukowski, W., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon, & N. Eisenberg (Eds.), *Handbook of child psychology. Vol 3: Social, emotional, and personality development* (pp. 553–617). New York: Wiley.

Skiba, R. J. (2000). *Zero tolerance. Zero evidence. An analysis of school disciplinary practice.* Indiana: Policy Research Report.

Smith, P. K. (2003). *Violence in Schools: The Response in Europe.* London: Routledge Falmer.

Stevens, V., De Bourdeaudhuij, I., & Van Oost, P. (2002). Relationship of the family environment to children's involvement in bully/victim problems at school. *Journal of Youth and Adolescence, 31*, 419-428.

Thornberry, T. P. (1996). Empirical support for interactional theory: a review of the literature. In J. D. Hawkins (Ed.), *Delinquency and crime: current theories* (pp. 198-235). New York: Cambridge University Press.

Trouilloud, D. O., Sarrazin, P. G., Martinek, T. J., & Guillet, E. (2002). The influence of teacher expectations on student achievement in physical education classes: Pygmalion revisited. *European Journal of Social Psychology, 32,* 591-607.

Veneziano, R. A. (2000). Perceived paternal and maternal acceptance and rural African American and European American youths' psychological adjustment. *Journal of Marriage and the Family, 62,* 123-132.

Welsh, E., Buchanan, A., Flouri, E. & Lewis, J. (2004). *Involved fathering and child well-being: Fathers' involvement with secondary school age children.* New York: Joseph Rowntree Foundation.

Werner, N.E. (2004). Maladaptive peer relationships and the development of relational and physical aggression during middle childhood. *Social Development, 13,* 495-514.

Zettergren, P. (2003). School adjustment in adolescence for previously rejected, average, and popular children. *British Journal of Educational Psychology, 73,* 207-221.

Table 1

Correlations among Observed Variables

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Mother-Open communication | - | | | | | | | | | | | | | | |
| 2. Mother-Offensive communication | -53*** | - | | | | | | | | | | | | | |
| 3. Mother-Avoidant communication | -.45*** | .30*** | - | | | | | | | | | | | | |
| 4. Father-Open communication | .56*** | -.32*** | -.30*** | - | | | | | | | | | | | |
| 5. Father-Offensive communication | -.32*** | .65*** | .19*** | -.44*** | - | | | | | | | | | | |
| 6. Father-Avoidant communication | -.27*** | .20*** | .68*** | -.32*** | .25*** | - | | | | | | | | | |
| 7. Teacher-Relationship with the teacher | .06 | -.11** | -.06 | .05 | -.10** | -.05 | - | | | | | | | | |
| 8. Teacher- Social integration at school | .08 | -.15*** | -.02 | .09 | -.15*** | -.04 | .56*** | - | | | | | | | |
| 9. Teacher-Academic success | .14** | -.20*** | -.05 | .12** | -.17*** | -.02 | .57*** | .63*** | - | | | | | | |
| 10. Violent Behaviour at school | -.23*** | .23*** | .14*** | -.18*** | .20*** | .12*** | -.20** | -.13*** | -.27*** | - | | | | | |
| 11. Attitude towards school and teachers | .27*** | -.22*** | -.10** | .22*** | -.15*** | .21*** | .26*** | .28*** | .10** | -.34*** | - | | | | |
| 12. Perception of injustice | -.12*** | .16*** | .12*** | -.09** | .09** | .-14*** | -.14*** | -.16*** | -.21*** | .31*** | -.29*** | - | | | |
| 13. Sociometric Status- Acceptance | .02 | -.05 | .03 | .02 | .01 | .06 | .41*** | .25*** | .38*** | -.07 | -.04 | -.09 | - | | |
| 14. School Self-Concept | .27*** | -.19*** | -.14*** | .20*** | -.17*** | -.04 | .32*** | .39*** | .45*** | -.30*** | .27*** | -.30*** | .24*** | - | |
| 15. Family Self-Concept | .56*** | -.46*** | -.28*** | .42*** | -.34*** | -.21*** | .12*** | .16*** | .17*** | -.23*** | .25*** | -.16*** | .07 | .34*** | - |

Note: variables are standardized.

*p < .05; **p < .01; ***p < .001

Table 2

Unstandardized Parameter Estimates, Standard Errors,

and Significance Levels

| Variables | Factor loadings |
|---|---|
| **Communication with Mother** | |
| Open communication | 1.321*** |
| | (0.069) |
| Avoidant communication | -0.734*** |
| | (0.049) |
| Offensive communication | - 1 [a] |
| **Communication with Father** | |
| Open communication | 1.258*** |
| | (0.088) |
| Avoidant communication | -0.654*** |
| | (0.058) |
| Offensive communication | - 1 [a] |
| **Teacher's Perception** | |
| Academic success | 1.477*** |
| | (0.090) |
| Social integration at school | 1.094*** |
| | (0.053) |
| Relationship with the teacher | 1 [a] |
| **Attitude towards Institutional Authority** | |
| Perception of injustice | -.843*** |
| | (0.072) |
| Attitude towards school and teachers | 1 [a] |
| Violent Behaviour at School | 1 [a] |
| Sociometric Status (acceptance by peers) | 1 [a] |
| School Self-Concept | 1 [a] |
| Family Self-Concept | 1 [a] |

Robust statistics. Standard errors are in parenthesis.

[a] Fixed to 1.00 during estimation.

***p < .001 (two-tailed test)

Figure Caption

Figure 1. Final structural model[1]
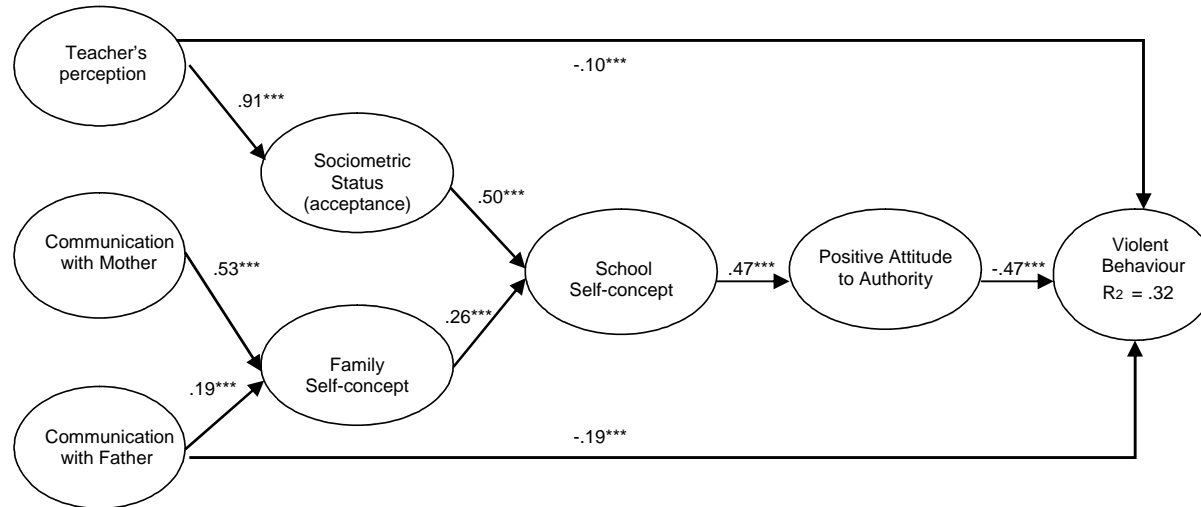


[1]Continuous lines represent significant paths among latent variables.
Robust standard errors were used to determine the significance of
the standardized paths (**p < .01; ***p < .001).
Manifest indicators are omitted.