SCHOOL MALADJUSTMENT IN CHILDREN AND ADOLESCENTS

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Abstract

School maladjustment can be understood as students’ broad pattern of psychological uneasiness in the school context, which can be caused by different factors. Taking into account the relevance of the school context in children’s and adolescents’ lives, it is important to analyze their adjustment. This study explores school maladjustment in 1843 children and adolescents aged 11 to 18 from public and grant-assisted private schools in the Autonomous Region of the Basque Country (Spain). The students filled out the self-report of the Behavior Assessment System for Children (BASC). Results showed that clinically significant school maladjustment increased considerably in the age ranges of 13-14 and 17-18 years old. Moreover, statistical analysis supported that especially boys aged 13-14 scored higher in school maladjustment. Different predictive factors of school maladjustment were found, depending on the age ranges, though some factors were present in all age groups: Atypicality and Sense of inadequacy were risk factors, while good Relations with parents acted as a protective factor. Implications of these results for the design of intervention and prevention programs in the school context are discussed.

Keywords: School maladjustment, school, children, adolescents.

1 INTRODUCTION

The socialization contexts of adolescents, and particularly the school environment, merit special attention, given their enormous significance in this developmental stage and their great relevance for the adolescent’s adjustment \cite{1, 2, 3, 4}. Crucially, school adjustment is an important indicator of adolescents’ future personal adjustment. School adjustment reflects the extent to which children are interested, engaged, and successful at school \cite{5, 6}. Consequently, school maladjustment can be understood as students’ broad pattern of psychological uneasiness in the school context. School adjustment (and maladjustment) is likely to be influenced by a wide variety of factors, academic achievement, peer relationships, teacher-child relationships and school environment being the most widely studied of them \cite{7, 8, 9, 10, 11}.

At this point, and following the suggestions of Lam et al. \cite{12} for the construct of “student engagement”, it is important to draw a distinction between the indicators and facilitators of a construct. Indicators refer to the features that define the construct, whereas facilitators are contextual factors that influence the construct: indicators are the characteristics that belong within the construct and facilitators are the causal factors residing outside the construct but which will influence it.

As regards the indicators of school adjustment, Reynolds and Kamphaus \cite{13} understand it as a global dimension made up of a scale of negative attitude toward school, a scale of negative attitude toward teachers and a third scale related to sensation-seeking. It is a general measure of adaptation to school, and adolescents who present high levels of school maladjustment exhibit a pattern of general uneasiness with school, with teachers and with the structure of the education process. Likewise, sensation-seeking (tendency to take risks; need for excitement and strong emotional experiences) also belongs to this global dimension, since it correlates significantly with behavior problems at school and with negative attitudes toward teachers and toward school in general \cite{13}.

As far as the facilitators of school adjustment are concerned, academic achievement has gained great prominence in the literature on this topic \cite[e.g., 7], but the affective sphere and personality traits should not be ignored. In fact, not only peer relationships but also relationships with parents and teachers should be taken into account.
Many studies have demonstrated the connection between difficulties in peer relationships and negative attitudes about school and learning, academic difficulties and school avoidance [e.g., 8, 14, 15, 16]. Similarly, negative interactions with teachers have been related to poor adjustment and school avoidance [e.g., 17, 18], while positive student-teacher relationships may make students less prone to antisocial behavior, low self-esteem, and adjustment problems in general [19, 20].

Previous studies have highlighted the importance of the family for school adjustment [10, 21, 22], insofar as the family provides models of behavior and of conflict resolution and the involvement of the family in school activities is positively related to children's academic performance. In fact, Matejevic et al. [21] explain that during high school a decline in parental involvement may occur, which has a detrimental impact on adolescents’ achievement. Martínez Ferrer [23] stresses the importance of parental support and of self-esteem as resources exerting a notable influence on school adjustment. That is, relations with parents influence their children's school adjustment indirectly, and when the adolescent perceives a good flow of communication with the mother and a high degree of maternal support, his or her participation in school acts of violence decreases; at the same time, good father-child relations and perceived support from the father facilitate the development of positive self-perception in the social sphere [23].

The results of analyzing differences in school adjustment by sex reveal a tendency for boys to be less well adjusted to school, with more behavior problems, more negative attitudes toward teachers and lower levels of achievement [7, 12, 18, 24]. However, Heaven, Mak, Barry and Ciarrochi [25] found that personality traits and parental factors should also be taken into account to better understand such attitudes to school and academic performance.

Therefore, taking into account previous research, the aim of the present study is to improve our understanding of the school maladjustment of adolescents aged 11 to 18, with a view to identifying predictive factors that could explain it and any possible differences by sex and age.

2 METHOD

2.1 Participants

The sample consisted of 1843 children and adolescents aged 11 to 18: 963 were girls (mean age = 14.58; SD = 1.63) and 878 were boys (mean age = 14.40; SD = 1.71). They were recruited from public and grant-assisted private schools in the Autonomous Region of the Basque Country (Spain). Table 1 shows the distribution of the sample grouped by sex and age. Two participants failed to state their sex.

<table>
<thead>
<tr>
<th>Age</th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-12</td>
<td>157</td>
<td>122</td>
<td>279</td>
</tr>
<tr>
<td>13-14</td>
<td>293</td>
<td>322</td>
<td>615</td>
</tr>
<tr>
<td>15-16</td>
<td>313</td>
<td>390</td>
<td>703</td>
</tr>
<tr>
<td>17-18</td>
<td>115</td>
<td>129</td>
<td>244</td>
</tr>
</tbody>
</table>

2.2 Assessment instrument

Participants were administered the Behavior Assessment System for Children and Adolescents (BASC) (Reynolds & Kamphaus [13], Basque adaptation by Bernaras, Jaureguizar, Soroa, Sarasa, Garaigordobil and Dosil [26]), in its self-report version (S3). The S3 personality self-report is an inventory made up of 185 statements, to which respondents are required to answer true or false. It includes 14 scales, grouped in two categories, clinical and adaptive. The clinical scales are as follows: Negative attitude to school (feelings of alienation, hostility and dissatisfaction in relation to school), Negative attitude to teachers (feelings of antipathy towards teachers, belief that one's teachers are unfair, pay too little attention to the students, or are too demanding), Sensation-seeking (need for wide-ranging, new and complex sensations and experiences, and a wish to take physical and social risks for such sensations and experiences), Atypicality (tendency for sudden mood swings, strange ideas, unusual experiences, obsessive-compulsive thoughts, and behaviors considered “odd”), Locus of control (belief that rewards and punishments are controlled by external events or by other people),
Somatization (the unconscious process by which psychological distress is expressed as physical symptoms), Social stress (the level of stress experienced in interactions with others), Anxiety (feelings of nervousness, worry and fear; tendency to feel overwhelmed by problems), Depression (common symptoms of depression, including feelings of loneliness and sadness, and incapacity to enjoy life), and Sense of inadequacy (perceptions of lacking success at school, difficulty to achieve one’s own objectives and general incapacity). The four adaptive scales are: Interpersonal relations (perception of having good social relations and friendships with peers), Relations with parents (positive appraisal of one’s parents and feeling that one is respected by them), Self-esteem (feelings of self-esteem, self-respect and self-acceptance), and Self-reliance (confidence in one’s own capacity to resolve problems, belief in one’s capacity to decide for oneself). These 14 scales are grouped in four global dimensions: Personal Adjustment, Clinical Maladjustment, School Maladjustment and Index of emotional symptoms. The last of these represents a global indicator of emotional alterations, specifically of internalizing problems. In general, the internal consistency of the instrument was adequate, the lowest values of internal consistency being found for the Self-reliance (α = .40), Somatization (α = .64) and Relations with parents (α = .69) scales, and the highest for the Self-esteem (α = .85), Social stress (α = .82) and Anxiety (α = .82) scales. Cronbach’s alphas for the global dimensions were also adequate: Personal Adjustment (α = .85), Clinical Maladjustment (α = .94), School Maladjustment (α = .83) and Index of emotional symptoms (α = .90).

2.3 Procedure

Before contacting the schools, the procedure was reviewed by the Ethics Committee for Research with Human Beings (Comité de Ética para las Investigaciones realizadas con Seres Humanos; CEISH) at the University of the Basque Country, which gave its approval for the study to be carried out.

The sample was obtained through convenience sampling [27]. In order to obtain a heterogeneous sample we contacted both public and grant-assisted private schools, and also made sure to include schools not only from the provincial capitals, but also from small towns and villages in the three provinces of the Basque Country. In face-to-face interviews with head teachers we explained the aims of the study, the procedures to be followed and the instrument to be used. Once a school had agreed to participate, the conditions were set for the students’ families to receive the informed consent documents. Those families that allowed their children to take part returned the informed consent forms to the school, and we then proceeded to apply the instrument, which was applied in group format by members of the research team. The instructions for filling out the questionnaire were read aloud in the classroom and the students filled out the questionnaire in normal lesson time. The PASW Statistics 18 package was used for the data analysis. All those cases that failed to meet the validity criteria in accordance with the F and V indices of the BASC were removed.

2.4 Data analysis

First of all, the sample’s level of school maladjustment was confirmed, analyzing “no school maladjustment”, “at risk of school maladjustment”, and “clinically significant results”.

Secondly, and with the aim of verifying whether the scores in school maladjustment varied significantly by sex and/or age group, we carried out a 2x2 analysis of variance and a post hoc Tukey HSD test with Bonferroni correction, and calculated the effect sizes associated with the differences (Hedges g’).

Finally, we assessed a multiple regression model in which we considered the predictive capacity of the set of variables measured by the BASC-3S in relation to School Maladjustment, with the exception of those making up this secondary scale, for each age group.

3 RESULTS

3.1 Degree of school maladjustment

The results showed that 6.2% of students scored very high (clinically significant) in school maladjustment, while 16.5% were at risk and 77.3% showed no school maladjustment. No differences in the degree of school maladjustment (no maladjustment, risk for maladjustment, or clinically significant maladjustment) were found between boys and girls. However, differences were found between the age groups ($\chi^2 = 20.9; p = .002$): the percentage of students without maladjustment was
significantly lower in the 13-14 years age group, in comparison to the other groups, and the percentage of students at risk for school maladjustment was also significantly higher in this group (see Table 2). Although higher scores in clinically significant school maladjustment were found in the 13-14 and 17-18 age groups, these differences were not statistically significant.

Table 2. Percentage of students without maladjustment, at risk, and with clinically significant school maladjustment, by age group.

<table>
<thead>
<tr>
<th></th>
<th>11-12 years</th>
<th>13-14 years</th>
<th>15-16 years</th>
<th>17-18 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Without maladjustment</td>
<td>82.60</td>
<td>71.97</td>
<td>80.00</td>
<td>78.27</td>
</tr>
<tr>
<td>At risk</td>
<td>12.68</td>
<td>20.39</td>
<td>15.32</td>
<td>13.52</td>
</tr>
<tr>
<td>Clinically significant</td>
<td>4.71</td>
<td>7.62</td>
<td>4.67</td>
<td>8.19</td>
</tr>
</tbody>
</table>

3.2 Differences in school maladjustment by sex and age

Table 3 shows the results for school maladjustment depending on students’ age and sex.

Table 3. School maladjustment by sex and age of the students

<table>
<thead>
<tr>
<th></th>
<th>11-12 years</th>
<th>13-14 years</th>
<th>15-16 years</th>
<th>17-18 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Boys</td>
<td>51.59</td>
<td>10.40</td>
<td>54.52</td>
<td>10.03</td>
</tr>
<tr>
<td>Girls</td>
<td>48.28</td>
<td>8.86</td>
<td>53.44</td>
<td>9.65</td>
</tr>
</tbody>
</table>

Statistically significant differences were found in the school maladjustment of boys and girls, boys scoring higher ($M = 52.44; SE = .37$) than girls ($M = 51.06; SE = .37$), though the effect size was small ($F_{1807,1} = 6.90; p = .009; g = .12$). As regards age, students aged 13-14 scored higher in school maladjustment ($M = 54.03; SE = .41$) than the 11-12 group ($M = 49.97; SE = .61; g = .39$) and the 15-16 group ($M = 50.83; SE = .38; g = .32$) ($F_{1807,3} = 14.89; p < .001$).

3.3 Predictive factors of school maladjustment

In order to calculate the predictive power of the set of variables measured by the BASC-3S in relation to School Maladjustment, with the exception of those making up this secondary scale, we carried out a linear regression analysis in each of the age groups. The coefficient values yielded are shown in Table 4.

The results obtained support the existence of a significant linear relationship between the variables included in the model and school maladjustment for all four age groups (11-12 years: $F_{11,272} = 18.2; p < .001$; 13-14 years: $F_{11,593} = 35.7; p < .001$; 15-16 years: $F_{11,682} = 22.1; p < .001$ and 17-18 years: $F_{11,242} = 8.92; p < .001$). In the 11-12 age group the model as a whole accounted for 41.1% of the variance of the scores in school maladjustment, with statistically significant independent contributions to the explanation of participants’ scores by Sense of inadequacy, Interpersonal relations, Atypicality, Relations with parents and Anxiety, in that order. In the 13-14 age group the model’s explanatory power was 39.2%, but the significant variables were Atypicality, Sense of inadequacy, Relations with parents, Anxiety, Interpersonal relations and Locus of control. Among the 15-16-year-olds the model accounted for 25.4% of the variance, and the following scales were statistically significant: Sense of inadequacy, Atypicality, Social stress, Locus of control, Anxiety and Relations with parents. In the eldest group the model explained 26.2% of the variance in the maladjustment scores, but the only scales with explanatory power were Atypicality, Sense of inadequacy and Relations with parents. These last three variables being statistically significant in all the groups, Atypicality and Sense of inadequacy acted as risk factors and good Relations with parents as a protective factor.
Table 4. Predictive factors of school maladjustment in the different age groups

<table>
<thead>
<tr>
<th></th>
<th>11-12 years</th>
<th>13-14 years</th>
<th>15-16 years</th>
<th>17-18 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beta</td>
<td>t</td>
<td>p</td>
<td>Beta</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>.961</td>
<td>.337</td>
<td>.000</td>
<td>4.669</td>
</tr>
<tr>
<td><strong>Atypicality</strong></td>
<td>.216</td>
<td>2.749</td>
<td>.006</td>
<td>.343</td>
</tr>
<tr>
<td><strong>Locus of control</strong></td>
<td>.128</td>
<td>1.673</td>
<td>.096</td>
<td>.120</td>
</tr>
<tr>
<td><strong>Somatization</strong></td>
<td>.083</td>
<td>1.285</td>
<td>.200</td>
<td>.035</td>
</tr>
<tr>
<td><strong>Social Stress</strong></td>
<td>.109</td>
<td>1.060</td>
<td>.290</td>
<td>-.048</td>
</tr>
<tr>
<td><strong>Anxiety</strong></td>
<td>-.177</td>
<td>-2.588</td>
<td>.010</td>
<td>-.167</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td>.154</td>
<td>1.758</td>
<td>.080</td>
<td>.101</td>
</tr>
<tr>
<td><strong>Sense of inadequacy</strong></td>
<td>.288</td>
<td>4.182</td>
<td>.000</td>
<td>.236</td>
</tr>
<tr>
<td><strong>Interpersonal relations</strong></td>
<td>.258</td>
<td>3.255</td>
<td>.001</td>
<td>.161</td>
</tr>
<tr>
<td><strong>Relations with parents</strong></td>
<td>-.196</td>
<td>-3.620</td>
<td>.000</td>
<td>-.198</td>
</tr>
<tr>
<td><strong>Self-esteem</strong></td>
<td>.048</td>
<td>.704</td>
<td>.482</td>
<td>.010</td>
</tr>
<tr>
<td><strong>Self-reliance</strong></td>
<td>-.002</td>
<td>-.044</td>
<td>.965</td>
<td>-.009</td>
</tr>
<tr>
<td>$R^2$ corrected</td>
<td>41.1%</td>
<td>39.2%</td>
<td>25.4%</td>
<td>26.5%</td>
</tr>
</tbody>
</table>

4 DISCUSSION

Adolescence is a critical developmental stage, given the wide-ranging and important changes (physical, psychological and social) that occur during it. Difficulties in this period can have important consequences in the future, so that the early detection of such problems becomes an essential aim for professionals working with adolescents. Teachers and other professionals in the school context play a highly relevant role in this detection. The aim of this study was to analyze the school maladjustment of a sample of students in the Basque Country (Spain).

The results show that school maladjustment is a serious issue, and that a relevant percentage of students score high in school maladjustment or are at risk of it. It seems that students in the 13-14 age group are more prone to school maladjustment, and this should be taken into account by teachers and other professionals in the school context. Moreover, boys score higher in school maladjustment, in line with the results of other studies that found poorer academic performance, more behavior problems and more negative attitudes to teachers and to school in [7, 12, 18, 24].

With a view to better understanding what school maladjustment implies, this study also analyzed the factors related to it. In all age groups Sense of inadequacy was a predictive factor of school maladjustment. This scale is that most closely related to academic performance, in the sense that it involves perceptions of lacking success at school. Thus, academic performance, and specifically students’ perception of their academic performance, is a crucial factor to take into account. Holden [7] suggests that teachers change their teaching styles to more active ones, in order to engage boys in the subjects and get them to enjoy collaborative group work and perform better.

The engagement of students in the school and in their work can also be achieved through the engagement of parents in the school and in their children’s activities. In fact, Relations with parents has been found to constitute an important predictive factor in all age groups – even though this would be at odds with the widespread idea that parents are “pushed into the background” when children reach adolescence.

Social relationships are also important factors, though in late adolescence this predictive factor loses predictive power; this could be explained by the psychological maturation process that takes place in adolescence. In this line, Sumter, Bokhorst, Steinberg and Westenberg [28] found that with increasing
age, adolescents reported that they felt more resistant to peer pressure. Hence, intervention programs on peer relationships should be designed to address early and middle adolescence in particular.

Finally, another predictive factor of school maladjustment in all age groups was Atypicality, a scale of the BASC that is more commonly related to severe psychopathology (such as psychotic disorders). It is not surprising that those adolescents with more severe psychological problems also present school adjustment problems. Heaven et al. [25] also found that the psychotic personality type was a consistently powerful predictor of both attitudes to school and academic performance.

In conclusion, this study provides results that confirm the importance of studying school adjustment in adolescence (especially in boys and in the 13-14 age group). Moreover, predictive factors are identified, so that future prevention and intervention programs can focus on these variables.

ACKNOWLEDGEMENTS

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