Predictors of social skills and behavioral problems in children

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RESUMO

Habilidades sociais e problemas de comportamento são influenciados por múltiplas variáveis. Objetivou-se comparar grupos de crianças diferenciados por déficits de habilidades sociais e problemas de comportamento quanto aos aspectos sociodemográficos, práticas educativas, recursos do ambiente familiar e indicadores de depressão materna, verificando o valor preditivo dessas variáveis. Participaram 151 mães de crianças e os dados foram comparados e tratados por regressões logísticas binárias. Nos modelos de regressão constataram-se as influências: a) para habilidades sociais das práticas positivas e negativas – problemas de comportamento e renda familiar; e b) para problemas de comportamento das práticas negativas – habilidades sociais infantis, tempo de educação materna, estado civil e sexo da criança. Nas comparações, os recursos do ambiente e depressão materna diferenciaram os grupos. A avaliação simultânea das variáveis evidenciou intersecções e diferenciações dos construtos.

Palavras-chave: Habilidades sociais; Problemas de comportamento; Práticas educativas; Depressão materna; Variáveis sociodemográficas.

Predictors of social skills and behavioral problems in children

ABSTRACT

Social skills and behavioral problems are influenced by multiple variables. Objective was to compare groups of children distinguished by social skill deficits and behavioral problems, according to sociodemographic variables, educational practices, family environment resources, and indicators of maternal depression, verifying the predictive value of those variables. Participants were 151 mothers of children, and data were compared and treated by binary logistic regression. On the regression models, the following influences were observed: a) in case of social skills related to the positive and negative educational practices – behavioral problems and low income; b) in case of behavioral problems related to the negative practices – child social skills, mother’s schooling, mother’s marital state and child’s gender. In comparisons, environmental resources and maternal depression differentiated the groups. Simultaneous evaluation of the variables emphasizes intersections and differences of the constructs.
**Keywords:** Social skills; Behavioral problems; Educational practices; Maternal depression; Sociodemographic variables.

Predictores de habilidades sociales y problemas de conducta en niños

**RESUMEN**

Las habilidades sociales y los problemas de comportamiento están influenciados por múltiples variables. Se objetivó comparar grupos de niños diferenciados por déficit de habilidades sociales y problemas de comportamiento en cuanto a los aspectos sociodemográficos, prácticas educativas, recursos del ambiente familiar e indicadores de depresión materna, verificando el valor predictivo de esas variables. Participaron 151 madres de niños y los datos fueron comparados y tratados mediante regresión logística binaria.

En los modelos de regresión, se observaron las siguientes influencias: a) en el caso de las habilidades sociales relacionadas con las prácticas educativas positivas y negativas: problemas de conducta y bajos ingresos; b) en caso de problemas de comportamiento relacionados con las prácticas negativas: habilidades sociales del niño, educación de la madre, estado civil de la madre y género del niño. En las comparaciones, los recursos ambientales y la depresión materna diferenciaron a los grupos. La evaluación simultánea de las variables enfatiza las intersecciones y las diferencias de los constructos.

**Palabras-clave:** Habilidades sociales; Problemas de comportamiento; Prácticas educativas; Depresión materna; Variables sociodemográficas.

**Introduction**

It is widely recognized in the literature that child social skills and behavioral problems are inversely proportional (Barreto, Freitas, & Del Prette, 2011; Berry, & O’Connor, 2010; Bolsoni-Silva, Marturano, & Loureiro, 2011; Kim, Doh, Hong, & Choi, 2010; Reynolds et al., 2010), with social skills favoring the adjustment of the child (Kettler, Elliott, Davies, & Griffi, 2011; Miner, & Clarke-Stewart, 2008; Pizato, Marturano, & Fontaine, 2014). Various studies consider that social skills and behavioral problems are multidetermined, being influenced by variables such as gender, sociodemographic characteristics, educational practices and parental psychopathology (Lins, Alvarenga, Santos, Almeida, & Santos, 2012).

Parental practices have been addressed in diverse studies. Wichstrom, Belsky and Berg-Nielse (2013) reported that the inhibition behavior of the children was influenced by parental anxiety, by attention deficit/hyperactivity disorder and by social skills deficits, while the gender of the child and the practices had no influence. Xing and Wang (2013), found that severe and mild punishment practices influenced internalization behavior in girls, but only severe punishment affected this behavior in boys. Price, Chiapa and Walsh (2013), identifying that physical punishment was the best predictor of externalization problems. Borden et al. (2014) found, through direct observation, a direct association between less positive practices and more behavioral problems, and between positive practices and skills of the children.

Analyzing these reports it appears that: negative practices, such as corporal punishment and threats, seem to increase the probability of externalizing (Price et al., 2013;
Trepat, Granero, & Ezpeleta, 2014) and internalizing behavioral problems (Baptista, Magna, McKey, & Del-Porto, 2011; Tandon, Cardeli, & Luby, 2009; Xing, & Wang, 2013); and positive practices, such as communication, setting limits and affection seem to prevent the emergence of behavioral problems and promote social skills (Baptista et al., 2011; Berry, & O’Connor, 2010; Bolsoni-Silva et al., 2011; Borden et al., 2014; Bueno, Grossi, Santos, Silva, & Moura, 2011; Leme, & Bolsoni-Silva, 2010; Marin, Piccinini, Gonçalves, & Tudge, 2012; Tandon et al., 2009).

Parental psychopathology, such as depression (Barbosa et al., 2014; Buehler, & Gerard, 2013; Hughes, & Gullone, 2008; Tandon et al., 2009) and anxiety (Hughes, & Gullone, 2008), has also been considered to be a variable that influences child behavior. This variable has been associated with the use of negative education practices (Hughes, & Gullone, 2008; Trepat et al., 2014). Trepat et al. (2014), verified that maternal anxiety-depression mediated corporal punishment and the oppositional defiant behavior of girls and boys.

The influence of gender on behavioral problems does not present consensus in the literature (Wichstrom et al., 2013). Boys are more often referred for psychological treatment (Borden et al., 2014), and have been identified with more behavioral problems, especially externalizing behavior (Landale, Lanza, Hillemeyer, & Oropesa, 2013; Borden et al., 2014; Samarakkody, Fernando, McClure, Perera, & De Silva, 2012). While girls have been identified with more internalizing problems (Merrell, & Harlacher, 2008) as well as evaluated with more social skills (Leman, & Bjornberg, 2010). However, other researchers found no gender influence on behavioral problems (Graziano, Geffken, & McNamara, 2011; Martin, Granero, & Ezpeleta, 2014; Munkvold, Lundervold, & Manger, 2011).

Regarding sociodemographic characteristics, Leme and Marturano (2014), identified that negative practices influenced the behavior of children, however, the type of family structure was not associated with indicators of child adjustment. Conversely, Lucas, Nicholson and Erbas (2013) reported that children from separated families had less adjustment than those from intact families, mainly due to exposure to marital conflict. Algarvio, Isabel and Maroco (2013) found that parents with higher levels of education were more concerned with the behavior of their children. Buehler and Gerard (2013) identified that low levels of education and low income were predictors of adjustment problems.

Analyzing the literature it can be verified that there is a need for studies that simultaneously evaluate, within the same sample, a set of variables, which separately influence behavior and social skills. Thus, the present study aimed to compare groups of children with and without indicators of social skills deficits and behavioral problems, according to sociodemographic variables, educational practices, family environment resources, and indicators of maternal depression, verifying the predictive value of these variables.

Method

Ethical aspects
This study was approved by the Research Ethics Committee of the university to which it is related (Authorization No. 5826/46/01/10).

Participants
The study included 151 mothers of preschool (n = 77) and school-age children (n = 74). The preschool children (42 boys and 35 girls) were between 2 and 5 years of age (mean = 2.8; SD = 1.13). The school-age children (48 boys and 26 girls) were between 6 and 11 years of age (mean = 8.5; SD = 2.08). The ages of the mothers varied from 20 to 49 years (mean = 32.5; SD = 6.33).
Instruments
1. Parental Educative Social Skills Interview Script (RE-HSE-P - Bolsoni-Silva, Loureiro, & Marturano, 2014), this is a semi-structured interview that evaluates the frequency and diversity of positive educational practices, negative educational practices, complaints about behavioral problem and child social skills. An alpha of 0.846 was identified. The instrument differentiates children with and without behavioral problems from the Child Behavior Checklist (CBCL), the area of the ROC curve was 0.769 ($p = 0.001$).

2. CBCL –nses indicative of behavioral problems for preschool and school-age children (4 to 18 years). The consistency index for the CBCL, considering the total scale is 0.92, for externalization 0.88 and internalization 0.80 (Achenbach, & Rescorla, 2001).

3. QRSH-Parents – Socially Skilled Responses Questionnaire for Parents (Bolsoni-Silva et al., 2011), evaluates the frequency of socially skilled responses, according to the reports of fathers and mothers. The instrument presented an alpha of 0.82 and discriminates children with and without certain behavioral problems from the perspectives of parents and teachers.

4. Home Environment Resource Scale – RAF (Marturano, 2006) assesses resources that promote proximal processes, activities that indicate stability in the family life and parenting practices that promote the family-school connection. The scale presented an alpha of 0.76.

5. PHQ-9 – Patient Health Questionnaire-9, is a module directly based on the diagnostic criteria for Major Depressive Disorder of the DSM-IV, proposed and validated by Spitzer et al. (1994), and enables screening for signs and symptoms of current major depression and the evaluation of severity levels. For the Brazilian population, Osorio, Mendes, Crippa and Loureiro (2009) identified satisfactory psychometric qualities.

Data collection procedure
Data were collected from the mothers of preschool and school-aged children of 26 public schools from a medium-sized municipality in Brazil who agreed to take part in the research. Teachers who agreed to participate signed the consent form and indicated two children, one of which they considered to have behavioral problems and one without behavioral problems. In this research, exclusively answers given by the mothers are being considered. Mothers that agreed to participate signed the terms of consent form and responded to the instruments during an individual, face to face session. Data were collected with 112 teachers, who indicated 224 children and 194 mothers.

Data treatment and analysis procedure
The groups with and without indicators of behavior problems and social skills deficits were compared, using Student’s t-test when the variables were continuous and the Chi-Square Crosstabs for the categorical variables. When variables with statistically significant differences were identified in the group comparisons, binary logistic regression analysis was performed for the models of social skills and behavioral problems. A significance level of 5% was adopted for the group comparisons and 10% for the regression analysis.

Results
This section presents comparisons of continuous and categorical variables for the group of children with social skills deficits and those without deficits (Table 1), followed by comparisons for children with and without behavioral problems, relative to the variables with significant differences that entered the initials models for social skills and behavioral problems (Table 2) and, lastly, presents the final models for social skills and behavioral problems (Table 3).
<table>
<thead>
<tr>
<th>Variables for the SS model</th>
<th>With indicators (n = 30)</th>
<th>Without indicators (n = 121)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Continuous variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP_POS(^1) - freq(^2) - RE-HSE-P</td>
<td>7.47 (2.57)</td>
<td>9.67 (2.67)</td>
<td>0.000</td>
</tr>
<tr>
<td>PP_POS - div(^3) - RE-HSE-P</td>
<td>7.26 (3.15)</td>
<td>10.08 (3.45)</td>
<td>0.000</td>
</tr>
<tr>
<td>Neg practices(^4) - freq-RE-HSE-P</td>
<td>7.40 (3.89)</td>
<td>5.54 (3.19)</td>
<td>0.018</td>
</tr>
<tr>
<td>Context - freq- RE-HSE-P</td>
<td>0.27 (0.58)</td>
<td>0.61 (0.84)</td>
<td>0.025</td>
</tr>
<tr>
<td>Context - div- RE-HSE-P</td>
<td>9.20 (4.20)</td>
<td>11.60 (5.30)</td>
<td>0.031</td>
</tr>
<tr>
<td>SS(^5) reported - freq- RE-HSE-P</td>
<td>6.03 (2.58)</td>
<td>7.57 (2.76)</td>
<td>0.000</td>
</tr>
<tr>
<td>SS reported - div- RE-HSE-P</td>
<td>8.80 (3.51)</td>
<td>11.85 (4.59)</td>
<td>0.000</td>
</tr>
<tr>
<td>Bhv probs(^6) - div- RE-HSE-P</td>
<td>7.70 (3.79)</td>
<td>6.50 (4.13)</td>
<td>0.075</td>
</tr>
<tr>
<td>Environment resources - RAF</td>
<td>65.70 (13.84)</td>
<td>74.07 (13.78)</td>
<td>0.003</td>
</tr>
<tr>
<td>Depression – PHQ-9</td>
<td>7.27 (6.76)</td>
<td>5.06 (5.62)</td>
<td>0.051</td>
</tr>
<tr>
<td><strong>Categorical variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categories</td>
<td>Subcategories</td>
<td>With indicators</td>
<td>Without indicators</td>
</tr>
<tr>
<td>Marital status- RE-HSE-P</td>
<td>Married/stable union</td>
<td>19 (63.33%)</td>
<td>99 (81.82%)</td>
</tr>
<tr>
<td></td>
<td>Single/widowed/divorced</td>
<td>10 (36.66%)</td>
<td>22 (18.18%)</td>
</tr>
<tr>
<td>Income- RE-HSE-P</td>
<td>Low</td>
<td>28 (93.33%)</td>
<td>83 (68.60%)</td>
</tr>
<tr>
<td></td>
<td>Medium/high</td>
<td>1 (3.33%)</td>
<td>35 (28.93%)</td>
</tr>
<tr>
<td>PP_POS - div- RE-HSE-P</td>
<td>With indicators</td>
<td>25 (83.33%)</td>
<td>57 (47.11%)</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>05 (16.67%)</td>
<td>64 (52.89%)</td>
</tr>
<tr>
<td>Neg practices -freq - RE-HSE-P</td>
<td>With indicators</td>
<td>06 (20.00%)</td>
<td>00 (0.00%)</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>04 (13.33%)</td>
<td>111 (91.74%)</td>
</tr>
<tr>
<td>Bhv probs CBCL</td>
<td>With indicators</td>
<td>23 (76.67%)</td>
<td>56 (46.28%)</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>07 (23.33%)</td>
<td>65 (53.72%)</td>
</tr>
<tr>
<td>Depression- PHQ-9</td>
<td>With indicators</td>
<td>17 (56.67%)</td>
<td>41 (33.88%)</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>13 (43.33%)</td>
<td>80 (66.12%)</td>
</tr>
</tbody>
</table>

\(^1\)Positive parental practices, \(^2\)frequency, \(^3\)diversity, \(^4\)negative practices, \(^5\)child social skills, \(^6\)behavioral problems. RE-HSE-P: Parental Educative Social Skills Interview Script; CBCL- Child Behavior Checklist; PHQ-9 - Patient Health Questionnaire-9

According to Table 1, the educational social skills of the mothers and the context in which they occurred (frequency and diversity) presented higher means for children without indicators of social skills problems. The environment resources and social
skills reported by the mothers (frequency and diversity) were also more frequent in this group. Children with social skills deficits had more behavioral problems reported and their mothers presented more indicators of depression and reported using more negative practices. Concerning the sociodemographic variables, it was found that the majority of the group with a high social skills score had parents that were married or in stable relationships and with higher incomes. Those classified as presenting indications of problems were more frequently in the social skills deficit group.

### Table 2. Comparisons of the groups with and without behavioral problem indicators

(Student’s t test and chi-square) according to continuous and categorical variables.

<table>
<thead>
<tr>
<th>Variables for the Bhv probs model</th>
<th>With indicators (n = 79)</th>
<th>Without indicators (n = 72)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Continuous variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neg practices - div- RE-HSE-P</td>
<td>7.02 (3.37)</td>
<td>5.29 (3.51)</td>
<td>3.086</td>
<td>0.002</td>
</tr>
<tr>
<td>Neg practices - freq - RE-HSE-P</td>
<td>7.38 (3.54)</td>
<td>4.29 (2.41)</td>
<td>6.211</td>
<td>0.000</td>
</tr>
<tr>
<td>SS - QRSH</td>
<td>28.82 (6.68)</td>
<td>31.97 (3.63)</td>
<td>-3.550</td>
<td>0.001</td>
</tr>
<tr>
<td>Bhv probs - div- RE-HSE-P</td>
<td>7.91 (3.05)</td>
<td>5.44 (3.88)</td>
<td>3.882</td>
<td>0.000</td>
</tr>
<tr>
<td>Context - freq- RE-HSE-P</td>
<td>0.74 (0.92)</td>
<td>0.33 (0.58)</td>
<td>3.249</td>
<td>0.001</td>
</tr>
<tr>
<td>Environment resources - RAF</td>
<td>69.34 (14.13)</td>
<td>75.76 (13.48)</td>
<td>-2.851</td>
<td>0.005</td>
</tr>
<tr>
<td>Depression – PHQ-9</td>
<td>7.17 (6.18)</td>
<td>3.66 (5.00)</td>
<td>3.796</td>
<td>0.000</td>
</tr>
<tr>
<td><strong>Categorical variables</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Categories</td>
<td>Subcategories</td>
<td>With indicators</td>
<td>Without indicators</td>
<td>X²</td>
</tr>
<tr>
<td>Education- RE-HSE-P</td>
<td>Up to 8 years</td>
<td>34 (43.04%)</td>
<td>18 (14.88%)</td>
<td>5.441</td>
</tr>
<tr>
<td></td>
<td>Over 8 years</td>
<td>44 (56.96%)</td>
<td>53 (85.12%)</td>
<td></td>
</tr>
<tr>
<td>Marital status- RE-HSE-P</td>
<td>Married/stable</td>
<td>55 (69.62%)</td>
<td>63 (88.89%)</td>
<td>8.130</td>
</tr>
<tr>
<td></td>
<td>Single/other</td>
<td>24 (30.37%)</td>
<td>08 (11.11%)</td>
<td></td>
</tr>
<tr>
<td>Income - RE-HSE-P</td>
<td>Low</td>
<td>66 (83.54%)</td>
<td>45 (62.50%)</td>
<td>7.460</td>
</tr>
<tr>
<td></td>
<td>Medium/high</td>
<td>12 (15.19%)</td>
<td>24 (33.33%)</td>
<td></td>
</tr>
<tr>
<td>Gender- RE-HSE-P</td>
<td>Boy</td>
<td>56 (70.89%)</td>
<td>34 (47.22%)</td>
<td>8.761</td>
</tr>
<tr>
<td></td>
<td>Girl</td>
<td>23 (29.11%)</td>
<td>38 (52.78%)</td>
<td></td>
</tr>
<tr>
<td>Neg practices - freq- RE-HSE-P</td>
<td>With indicators</td>
<td>06 (7.59%)</td>
<td>00 (0.00%)</td>
<td>16.311</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>16 (20.25%)</td>
<td>72 (100.00%)</td>
<td></td>
</tr>
<tr>
<td>Neg practices - div- RE-HSE-P</td>
<td>With indicators</td>
<td>48 (60.76%)</td>
<td>31 (43.06%)</td>
<td>4.733</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>38 (48.10%)</td>
<td>41 (56.94%)</td>
<td></td>
</tr>
<tr>
<td>Depression-PHQ-9</td>
<td>With indicators</td>
<td>41 (51.90%)</td>
<td>17 (23.61%)</td>
<td>12.741</td>
</tr>
<tr>
<td></td>
<td>Without indicators</td>
<td>38 (48.10%)</td>
<td>55 (76.39%)</td>
<td></td>
</tr>
</tbody>
</table>

It was observed that the context and the behavioral problems reported presented higher means for the group with problems, and the social skills of the children and the environment resources were more frequent in the group without behavioral problems. In the group with indicators of problem, there were fewer mothers in stable relationships or married, with lower levels of education and lower income. The boys presented more behavioral problems than the girls. The negative practices (frequency and diversity) and indicators of depression were more frequent in the group with problem indicators.
Table 3. Logistic regression considering the continuous and categorical variables for the social skills and behavioral problems constructs

<table>
<thead>
<tr>
<th></th>
<th>Odds ratio</th>
<th>C.I. (95%)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Child social skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PP_POS - freq RE-HSE-P</td>
<td>0.730</td>
<td>-0.060 -- -0.017</td>
<td>0.002</td>
</tr>
<tr>
<td>Neg practices -freq - RE-HSE-P</td>
<td>1.233</td>
<td>0.004 -- 0.043</td>
<td>0.016</td>
</tr>
<tr>
<td>Context - freq RE-HSE-P</td>
<td>0.298</td>
<td>-0.190 -- -0.036</td>
<td>0.005</td>
</tr>
<tr>
<td>Income - RE-HSE-P</td>
<td>5.525</td>
<td>-0.218 -- -0.068</td>
<td>0.118</td>
</tr>
<tr>
<td>Bhv probs - CBCL</td>
<td>3.878</td>
<td>-0.306 -- -0.041</td>
<td>0.019</td>
</tr>
<tr>
<td><strong>Behavioral problems</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neg practices - freq RE-HSE-P</td>
<td>0.756</td>
<td>-0.068 -- -0.022</td>
<td>0.000</td>
</tr>
<tr>
<td>SS - QRSH</td>
<td>1.154</td>
<td>0.007 -- 0.032</td>
<td>0.005</td>
</tr>
<tr>
<td>Context - freq RE-HSE-P</td>
<td>0.573</td>
<td>-0.190 -- -0.007</td>
<td>0.057</td>
</tr>
<tr>
<td>Education - RE-HSE-P</td>
<td>2.201</td>
<td>-0.006 -- 0.280</td>
<td>0.070</td>
</tr>
<tr>
<td>Marital status - RE-HSE-P</td>
<td>0.293</td>
<td>-0.378 -- -0.045</td>
<td>0.020</td>
</tr>
<tr>
<td>Gender - RE-HSE-P</td>
<td>1.907</td>
<td>-0.028 -- 0.265</td>
<td>0.140</td>
</tr>
</tbody>
</table>

For the social skills, as promoter variables, educational social skills (frequency) and the frequency of contexts in which they occurred in the interaction with the child remained in the final model. Conversely, the frequency with which mothers used negative practices, low income, and the presence of behavioral problems were related to problems regarding the social skills. The frequent use of negative practices and the contexts in which they were used were predictors of behavioral problems. The social skills deficit score, low maternal education and being a boy also increased the probability of the emergence of these problems, and having married parents seemed to protect from the emergence of behavioral problems.

**Discussion**

This study aimed to compare and verify the predictive value of different variables for child social skills and behavioral problems. Regarding social skills, from the QRSH-Parents it was verified that: (a) positive maternal parenting practices (Baptista et al., 2011; Berry, & O’Connor, 2010; Borden et al., 2014; Bueno et al., 2011; Marin et al., 2012), environmental resources (Marturano, 2006), context variables and social skills were more frequent in the group without problems (Berry, & O’Connor, 2010; Kim et al., 2010; Reynolds, Sander, & Irvin, 2010); (b) there was a higher frequency of negative practices (Baptista et al., 2011; Borden et al., 2014; Price et al., 2013; Trepat et al., 2014; Xing, & Wang, 2013) and maternal depression (Barbosa et al., 2014; Buehler, & Gerard, 2013) for the group with problems; and (c) the group without problems presented higher income (Buehler, & Gerard, 2013) and more parents that were married or in a stable relationship (Lucas et al., 2014). In the final regression model the variables that explained child social skills were: high scores in positive educational practices and context, excess of negative practices and behavioral problems, and low income.
Regarding behavioral problems, it verified that: (a) negative practices (Tandon et al., 2009; Trepat et al., 2014; Xing, & Wang, 2013), context, maternal depression (Barbosa et al., 2014; Buehler, & Gerard, 2013) and complaints of behavioral problems (measured by the RE-HSE-P) were more frequent in the group with problems (Bolsoni-Silva et al., 2014); (b) environment resources (Marturano, 2006) and child social skills were more frequent in the group without problems (Berry & O’Connor, 2010); (c) the group with problem indicators presented mothers with lower levels of education and lower income (Buehler, & Gerard, 2013) and fewer parents that were married or in a stable relationship (Lucas et al., 2014); and (d) boys presented higher behavioral problem scores (Landale et al., 2013). The variables excess of negative practices, social skills deficit, low education and low income, and the gender of the child (boys) remained in the final prediction model for behavioral problems.

The main data were consistent with the literature, as they showed that social skills and behavioral problems were related in the comparisons of groups and in the prediction analysis (Berry, & O’Connor, 2010; Kim et al., 2010; Reynolds et al., 2010), indicating that child social skills are an important resource to prevent and reduce the incidence of behavioral problems (Kettler et al., 2011; Miner, & Clarke-Stewart, 2008). Social skills and behavioral problems, as well as being influenced by each other, were influenced by other variables (Lins et al., 2012). Negative practices differentiated the groups with and without problems and remained in the final regression model for both social skills and behavioral problems, confirming other studies (Baptista et al., 2011; Price et al., 2013; Tandon et al., 2009; Trepat et al., 2014; Xing, & Wang, 2013). Conversely, positive practices differed and were predictors of child social skills and not for behavioral problems, in disagreement with other studies (Baptista et al., 2011; Berry, & O’Connor, 2010; Borden et al., 2014; Tandon et al., 2009). The relevance of this study was in the evaluation of the two variables within the same sample, which allowed the identification of these particularities. It should be noted that for behavioral problems, although it was not in the final model, as highlighted by Marturano (2006), environment resources, which are associated with positive practices, differentiated the groups indicating the direct influence of this measure. It would seem that positive parenting practices directly influence the promotion of child social skills and indirectly influence the repertoire of behavioral problems. Another aspect is that the positive practices, as with the general score, may not have been sufficient to distinguish the groups differentiated by behavioral problems, however, may have indirectly influenced child social skills, which influenced the behavioral problems.

Maternal depression (Barbosa et al., 2014; Buehler, & Gerard, 2013; Hughes, & Gullone, 2008; Tandon et al., 2009) differentiated the groups for social skills and behavioral problems, possibly by increasing the probability of the use of negative practices (Hughes, & Gullone, 2008; Trepat et al., 2014). However, this measure did not remain in the final regression models, suggesting its indirect, rather than direct, influence on social skills and behavioral problems.

The influence of gender on behavioral problems presents no consensus in the literature, this study agreed with previous studies (Landale et al., 2013; Borden et al., 2014; Samarakkody et al., 2012) that indicated that boys have more behavioral problems than girls, which remained in the final regression model. However, the girls did not present more social skills than the boys, which is in disagreement with Leman and Bjornberg (2010). It can be hypothesized that the sample size and the heterogeneity regarding the distribution by gender limited the comparisons. Future studies could compare the social skills total score with gender. The results indicated that gender exerted an indirect influence on social skills and a direct influence on behavioral problems.

In the present study the parental marital status differentiated the groups for social skills (Lins et al., 2012) and behavioral problems (Astone, & McLanahan, 1991), which is in agreement with Lucas et al. (2013), however, differs from the findings of Leme and Marturano (2014). Marital status remained in the final model for behavioral prob-
lems and not in that for social skills, suggesting that living with both parents can prevent the emergence of behavioral problems, possibly by ensuring greater attention and consistency between fathers and mothers (Lucas et al., 2014). However, 78% of the sample was composed of nuclear families, which might have biased the result. Regarding income and education level, income remained in the final model for social skills and education in the final model for behavioral problems, in agreement with other authors (Algarvio et al., 2013; Buehler, & Gerard, 2013; Lucas et al., 2014) that highlighted the relevance of these indicators. In addition, the results suggest that these measures exert different influences according to the construct evaluated.

Conclusions

The present study verified the influence of educational practice variables, family environment resources, maternal depression and sociodemographic characteristics on social skills and behavioral problems in preschool and school-age children. Through a predictive cross-sectional design and comparison of groups with and without problems, it was found as main data that negative educational practices, social skills and behavioral problems influenced the two models, that positive parental practices influenced social skills and that gender (boys) influenced behavioral problems. Maternal depression and the sociodemographic variables had specific influences. Some limits should be highlighted, such as the small sample size, the use of self-report instruments, although with good psychometric properties, and the absence of various informants for complex variables, such as parenting practices, which suggests the need for further studies.

Regarding the main contribution of the study, the simultaneous evaluation of multiple variables within the same sample should be highlighted, as this allowed the identification of the predictive value of each for social skills and behavioral problems and the identification of the points of intersection and differentiation of these two constructs, this being useful for preventive and intervention practices.

References


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